SPECIAL TAPE RECORDER ISSUE

On Buying Your First Tape Recorder
Michael Tippett * Cleo Laine * Ex-Beatles
The Allman Brothers Band is available exclusively on Capricorn records and ...
The Allman Brothers Band has a great new sound...
More than anything else, the Allman Brothers Band are musicians. Accomplished, sophisticated musicians whose blues-rooted improvisations have carried them to the top of their field.

Musicians, not rock stars. Their success doesn’t depend on sequins or serpents, or make-up, or put-on showmanship. Instead, they innovate. And they stake their fame on their music.

**Series R**

Series R speakers are designed for the individual who demands the finest in styling, design and sound. Styling and design as contemporary as the state of the art. And sound as contemporary as a live performance.

Series R speakers bring new life to live performances. And truly live performances to your listening room. Their high efficiency, extreme accuracy and zero coloration have been equally praised by artists, engineers, critics and musicians.

All of the Series R speakers — R700, R500 and R300 — deliver the true vibrancy of a live performance. In an untouched, uncolored and unusually natural way.

**Project Series**

Project Series speakers are designed to deliver maximum performance per dollar in a contemporary bookshelf design. Smallest of the three, the Project 60 is an extremely efficient system — delivering a surprisingly high sound level from moderately powered receivers and amplifiers. It is perfect for smaller hi-fi systems. And equally well suited for 4-channel systems — since many of the new 4-channel receivers and amplifiers have less power per channel than their stereo counterparts.

Project 80 and 100 speaker systems use their air suspension design to deliver a beautiful natural sound. Their superb bass response can effortlessly reproduce the lowest of lows with minimal distortion and uncanny accuracy. Their dome tweeters provide exceptionally wide dispersion and highs of unsurpassed clarity.

**CS Series**

There is a myth about speakers that handsome cabinets hide inferior sound. Fortunately, it need not be the case.

If you seriously demand the acoustic quality of custom cabinetry along with perfectly smooth sound, the CS series speakers will be your first choice. Their sound is precise and natural. And their craftsmanship is a reflection of an almost bygone era.

The air suspension design of the Project Series speakers have a 4-channel capability that combines the best of the CS and R series speakers to match any hi-fi system. They reproduce the sound of an original performance without adding coloration, hyped-up bass or artificial brilliance. They reproduce the sound of an original performance without adding coloration, hyped-up bass or artificial brilliance. They prefer Pioneer speakers because exactly what goes in is exactly what comes out.

With Pioneer speakers, the Allman Brothers sound right to the Allman Brothers. It’s that simple. Pioneer makes a variety of speakers to match any hi-fi system. Speakers that are consistent in their clarity, sound quality and ability to exactly reproduce the sound of an original performance. Speakers that vary because people vary, hi-fi systems vary, room acoustics vary, budgets vary and tastes vary.
Is it live or is it Memorex?

If anybody knows what Ella Fitzgerald sounds like, it's her old friend Count Basie. So we set up a test. First, we put Ella in a soundproof booth and recorded her singing on Memorex with MRX₂ Oxide. Then we invited the Count into the studio.

He listened, but didn’t look, as we alternated between Ella singing live and Ella recorded on Memorex with MRX₂ Oxide.

After switching back and forth a number of times, we asked the Count which was Ella live and which was Ella on Memorex.

His answer: “You gotta be kidding, I can’t tell.”

Now it just stands to reason that if an expert like Count Basie can’t tell the difference between “live” and Memorex, you probably can’t either.

But, why not buy a Memorex MRX₂ Oxide Cassette and listen for yourself?

MEMOREX Recording Tape.

©1974, Memorex Corporation, Santa Clara, California 95052

CIRCLE NO. 29 ON READER SERVICE CARD
THE MUSIC

SERGIO MENDES AND BRASIL '77
His music is an anthology of influences from several continents

HENRY PLEASANTS

56

THE BASIC REPertoire
Mozart's Clarinet Concerto

MARTIN BOOKSPAN

59

COMPOSER MICHAEL TIPPETT
An appreciation, richly deserved and long overdue

BERNARD JACOBSON

60

Cleo Laine
A popular British singer makes her first waves in the American pond

BONNIE MARRANCA

66

THE EX-BEATLES
Four new discs raise the question: Will they ever really solo?

NOEL COPPAGE

88

THE WAILERS
A little reggae may be good for rock shock

GARY KENTON

98

CHOOSING SIDES
Schumann and the Schumannesque

IRVING KOLODIN

104

ALBÉNIZ'S IBÉRIA
Alicia de Larrocha's new recording for London has the proper duende

WILLIAM ANDERSON

110

A SHORT DISQUISITION ON DMITRI SHOSTAKOVICH
Three new releases of note

DAVID HALL

124

THE EQUIPMENT

NEW PRODUCTS
A roundup of the latest in high-fidelity equipment

14

AUDIO QUESTIONS AND ANSWERS
Advice on readers' technical problems

LARRY KLEIN

20

AUDIO NEWS
Views and comment on recent developments

LARRY KLEIN

24

AUDIO BASICS
Glossary of Technical Terms—8

RALPH HODGES

26

TECHNICAL TALK
Speaker Tests vs. Speaker Sound; Hirsch-Houck Laboratory reports on the Sansui QRX-3500 AM/FM four-channel receiver, Hartley Speaker Sentry, Robins R47001 Speaker Protector, Marantz Model 4140 four-channel amplifier, and Electro-Voice Interface: A speaker system

JULIAN D. HIRSCH

31

YOUR FIRST TAPE RECORDER
How to decide between reel-to-reel, cartridge, and cassette

RALPH HODGES

68

RODRIGUES ON TAPE
Keeping an unclouded eye on tape and tapesters

CHARLES RODRIGUES

73

HOME RECORDING STUDIO
Even the most modest beginnings will need a few guidelines

CRAIG STARK

74

TAPE HORIZONS
Microphone Mixers

CRAIG STARK

128

THE REVIEWS

BEST RECORDINGS OF THE MONTH

79

POPULAR DISCS AND TAPES

85

CLASSICAL DISCS AND TAPES

107

THE REGULARS

EDITORIALLY SPEAKING

WILLIAM ANDERSON

6

LETTERS TO THE EDITOR

8

BOOKS RECEIVED

LOUISE GOOCH BOUNDAS

12

GOING ON RECORD

JAMES GOODFRIEND

52

THE SIMELS REPORT

STEVE SIMELS

54

ADVERTISERS' INDEX

128

COVER: Design by Borys Patchowsky; photo by Bruce Pendleton
No sales talk. Just numbers.

Three new moderately priced bookshelf speakers for the audiophile:
The Fisher Studio-Standard 400 series.

<table>
<thead>
<tr>
<th>Specifications*</th>
<th>ST-465</th>
<th>ST-445</th>
<th>ST-425</th>
</tr>
</thead>
<tbody>
<tr>
<td>Price:</td>
<td>$169.95</td>
<td>$99.95</td>
<td>$79.95</td>
</tr>
<tr>
<td>Effective frequency response, on axis: (Pink-noise source, 3-octave bands):</td>
<td>40-20,000 Hz</td>
<td>50-20,000 Hz</td>
<td>75-20,000 Hz</td>
</tr>
<tr>
<td>Impedance, nominal:</td>
<td>6-8 ohms</td>
<td>6-8 ohms</td>
<td>6-8 ohms</td>
</tr>
<tr>
<td>Continuous power-handling capacity, 2-second duration:</td>
<td>100 Watts</td>
<td>90 Watts</td>
<td>80 Watts</td>
</tr>
<tr>
<td>60-second duration:</td>
<td>50 Watts</td>
<td>45 Watts</td>
<td>40 Watts</td>
</tr>
<tr>
<td>Long-term duration:</td>
<td>25 Watts</td>
<td>22 Watts</td>
<td>20 Watts</td>
</tr>
<tr>
<td>Minimum continuous power, amplifier requirement:</td>
<td>25 Watts</td>
<td>15-20 Watts</td>
<td>15-20 Watts</td>
</tr>
<tr>
<td>Total number of drivers:</td>
<td>3 at 8 ohms</td>
<td>3 at 8 ohms</td>
<td>at 8 ohms</td>
</tr>
<tr>
<td>Woofer cone diameter:</td>
<td>12&quot;</td>
<td>10&quot;</td>
<td>10&quot;</td>
</tr>
<tr>
<td>Voice-coil diameter:</td>
<td>2&quot;</td>
<td>1½&quot;</td>
<td>1½&quot;</td>
</tr>
<tr>
<td>Magnet structure:</td>
<td>lbs.</td>
<td>lbs.</td>
<td>lbs.</td>
</tr>
<tr>
<td>Midrange speaker type:</td>
<td>flare dome</td>
<td>cone</td>
<td>cone</td>
</tr>
<tr>
<td>Diameter:</td>
<td>3½&quot;</td>
<td>4½&quot;</td>
<td>4½&quot;</td>
</tr>
<tr>
<td>Voice-coil diameter:</td>
<td>½&quot;</td>
<td>¾&quot;</td>
<td>¾&quot;</td>
</tr>
<tr>
<td>Magnet structure:</td>
<td>lbs.</td>
<td>lbs.</td>
<td>lbs.</td>
</tr>
<tr>
<td>Tweeter type:</td>
<td>dome</td>
<td>dome</td>
<td>dome</td>
</tr>
<tr>
<td>Dome or cone diameter:</td>
<td>1&quot;</td>
<td>1&quot;</td>
<td>1&quot;</td>
</tr>
<tr>
<td>Voice-coil diameter:</td>
<td>1½&quot;</td>
<td>1½&quot;</td>
<td>1½&quot;</td>
</tr>
<tr>
<td>Crossover frequencies:</td>
<td>450, 5,000 Hz</td>
<td>650, 5,500 Hz</td>
<td>2,500 Hz</td>
</tr>
<tr>
<td>Controls:</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Midrange:</td>
<td>3 pos.</td>
<td>3 pos.</td>
<td>3 pos.</td>
</tr>
<tr>
<td>Treble:</td>
<td>3 pos.</td>
<td>3 pos.</td>
<td>3 pos.</td>
</tr>
<tr>
<td>Weight:</td>
<td>30 lbs.</td>
<td>30 lbs.</td>
<td>25 lbs.</td>
</tr>
<tr>
<td>Dimensions:</td>
<td>24½&quot; x 14½&quot; x 11½&quot; deep</td>
<td>24½&quot; x 14½&quot; x 11&quot; deep</td>
<td>22½&quot; x 12½&quot; x 10&quot; deep</td>
</tr>
<tr>
<td>Cabinet finish:</td>
<td>Walnut</td>
<td>Walnut</td>
<td>Walnut Vinyl</td>
</tr>
</tbody>
</table>

*Studio-Standard speakers are available only at Fisher Studio-Standard dealers. Fair trade prices where applicable.
DECEPTIVE PACKAGING

It is with no thought of adding to your troubles in these parlous times but of enlisting you in the ranks of a vigilant minority that I call your attention to a kind of pollution that is likely to cause all of us, in time, infinitely more trouble than might, say, the whole of Texas covered a six-pack deep in non-biodegradable beer cans. One tends always to speak of one's own first concerns as if they were of equal moment to the entire world, but language pollution is unquestionably everybody's business, not just those of us who work under that infinitely various umbrella called "communications." Indeed, far too many in the communications business—those who write for newspapers, magazines, books, radio, TV, and including especially those libertine littératoirs whose pleasure it is to spread bad grammar over the nation's billboards—are not language's defenders but its betayers, and their lazy ignorance (or energetic connivance) has worked to poison the streams of intellectual commerce, to trash the ecology of our minds with solecisms, malapropisms, and various syntactical sins.

Words have certainly been abused, misused, and suffered changes of meaning in years past, but, owing to the disseminating marvels of today's mass communications media, the destruction of perfectly good words is outrunning our ability to replace them, to find others of equal effectiveness to serve a still desperate need to communicate with each other. It is no help to this need to find so many useful words, once bright with glorious precision, turned literally (and often deliberately) into tarnished idols of the market place, blunt instruments of the status vocabulary. Thus it is already probably too late, for quick example, to rescue the vanished meanings of such recent victiims of devaluing fashion as charisma, compassion, and empathy. And it is most certainly too late to keep Johnny Carson from teaching millions to say nauseous when they undoubtedly mean nauseated, or to keep practically everybody else from dropping a leaden hopefully into sentences already foundering with their nauseous when they undoubtedly mean nauseated, or to keep practically everybody else from dropping a leaden hopefully into sentences already foundering with the nauseous when they undoubtedly mean nauseated, or to keep practically everybody else from dropping a leaden hopefully into sentences already foundering with the nauseous when they undoubtedly mean nauseated, or to keep practically everybody else from dropping a leaden hopefully into sentences already foundering with the nauseous when they undoubtedly mean nauseated, or to keep practically everybody else from dropping a leaden hopefully into sentences already foundering with the nauseous when they undoubtedly mean nauseated, or to keep practically everybody else from dropping a leaden hopefully into sentences already foundering with the nauseous when they undoubtedly mean nauseated, or to keep practically everybody else from dropping a leaden hopefully into sentences already foundering with the nauseous when they undoubtedly mean nauseated, or to keep practically everybody else from dropping a leaden hopefully into sentences already foundering with the nauseous when they undoubtedly mean nauseated, or to keep practically everybody else from dropping a leaden hopefully into sentences already foundering with the nauseous when they undoubtedly mean nauseated, or to keep practically everybody else from dropping a leaden hopefully into sentences already foundering with the nauseous when they undoubtedly mean nauseated, or to keep practically everybody else from dropping a leaden hopefully into sentences already foundering with the nauseous when they undoubtedly mean nauseated, or to keep practically everybody else from dropping a leaden hopefully into sentences already foundering with the nauseous when they undoubtedly mean nauseated, or to keep practically everybody else from dropping a leaden hopefully into sentences already foundering with the nauseous when they undoubtedly mean nauseated, or to keep practically everybody else from dropping a leaden hopefully into sentences already foundering with the nauseous when they undoubtedly mean nauseated, or to keep practically everybody else from dropping a leaden hopefully into sentences already foundering with the nauseous when they undoubtedly mean nauseated, or to keep practically everybody else from dropping a leaden hopefully into sentences already foundering with the nauseous when they undoubtedly mean nauseated, or to keep practically everybody else from dropping a leaden hopefully into sentences already foundering with the nauseous when they undoubtedly mean nauseated, or to keep practically everybody else from dropping a leaden hopefully into sentences already foundering with the nauseous when they undoubtedly mean nauseated, or to keep practically everybody else from dropping a leaden hopefully into sentences already foundering with the nauseous when they undoubtedly mean nauseated, or to keep practically everybody else from dropping a leaden hopefully into sentences already foundering with the nauseous when they undoubtedly mean nauseated, or to keep practically everybody else from dropping a leaden hopefully into sentences already foundering with the nauseous when they undoubtedly mean nauseated, or to keep practically everybody else from dropping a leaden hopefully into sentences already foundering with the nauseous when they undoubtedly mean nauseated, or to keep practically everybody else from dropping a leaden hopefully into sentences already foundering with the nauseous when they undoubtedly mean nauseated, or to keep practically everybody else from dropping a leaden hopefully into sentences already foundering with the nauseous when they undoubtedly mean nauseated, or to keep practically everybody else from dropping a leaden hopefully into sentences already foundering with the nauseous when they undoubtedly mean nauseated, or to keep practically everybody else from dropping a leaden hopefully into sentences already foundering with the nauseous when they undoubtedly mean nauseated, or to keep practically everybody else from dropping a leaden hopefully into sentences already foundering with the nauseous when they undoubtedly mean nauseated, or to keep practically everybody else from dropping a leaden hopefully into sentences already foundering with the nauseous when they undoubtedly mean nauseated, or to keep practically everybody else from dropping a leaden hopefully into sentences already foundering with the nauseous when they undoubtedly mean nauseated, or to keep practically everybody else from dropping a leaden hopefully into sentences already foundering with the nauseous when they undoubtedly mean nauseated, or to keep practically everybody else from dropping a leaden hopefully into sentences already foundering with the nauseous when they undoubtedly mean nauseated, or to keep practically everybody else from dropping a leaden hopefully into sentences already foundering with the nauseous when they undoubtedly mean nauseated, or to keep practically everybody else from dropping a leaden hopefully into sentences already foundering with the nauseous when they undoubtedly mean nauseated, or to keep practically everybody else from dropping a leaden hopefully into sentences already foundering with the nauseous when they undoubtedly mean nauseated, or to keep practically everybody else from dropping a leaden hopefully into sentences already foundering with the nauseous when they undoubtedly mean nauseated, or to keep practically everybody else from dropping a leaden hopefully into sentences already foundering with the nauseous when they undoubtedly mean nauseated, or to keep practically everybody else from dropping a leaden hopefully into sentences already foundering with the nauseous when they undoubtedly mean nauseated, or to keep practically everybody else from dropping a leaden hopefully into sentences already foundering with the nauseous when they undoubtedly mean nauseated, or to keep practically everybody else from dropping a leaden hopefully into sentences already foundering with the nauseous when they undoubtedly mean nauseated, or to keep practically everybody else from dropping a leaden hopefully into sentences already foundering with the nauseous when they undoubtedly mean nauseated, or to keep practically everybody else from dropping a leaden hopefully into sentences already foundering with the nauseous when they undoubtedly mean nauseated, or to keep practically everybody else from dropping a leaden hopefully into sentences already foundering with the nauseous when they undoubtedly mean nauseated, or to keep practically everybody else from dropping a leaden hopefully into sentences already foundering with the nauseous when they undoubtedly mean nauseated, or to keep practically everybody else from dropping a leaden hopefully into sentences already foundering with the nauseous when they undoubtedly mean nauseated, or to keep practically everybody else from dropping a leaden hopefully into sentences already foundering with the nauseous when they undoubtedly mean nauseated, or to keep practically everybody else from dropping a leaden hopefully into sentences already foundering with the nauseous when they undoubtedly mean nauseated, or to keep practically everybody else from dropping a leaden hopefully into sentences already foundering with the nauseous when they undoubtedly mean nauseated, or to keep practically everybody else from dropping a leaden hopefully into sentences already foundering with the nauseous when they undoubtedly mean nauseated, or to keep practically everybody else from dropping a leaden hopefully into sentences already foundering with the nauseous when they undoubtedly mean nauseated, or to keep practically everybody else from dropping a leaden hopefully into sentences already foundering with the nauseous when they undoubtedly mean nauseated, or to keep practically everybody else from dropping a leaden hopefully into sentences already foundering with the nauseous when they undoubtedly mean nauseated, or to keep practically everybody else from dropping a leaden hopefully into sentences already foundering with the nauseous when they undoubtedly mean nauseated, or to keep practically everybody else from dropping a leaden hopefully into sentences already foundering with the nauseous when they undoubtedly mean nauseated, or to keep practically everybody else from dropping a leaden hopefully into sentences already foundering with the nauseous when they undoubtedly mean nauseated, or to keep practically everybody else from dropping a leaden hopefully into sentences already foundering with the nauseous when they undoubtedly mean nauseated, or to keep practically everybody else from dropping a leaden hopefully into sentences already foundering with the nauseous when they undoubtedly mean nauseated, or to keep practically everybody else from dropping a leaden hopefully into sentences already foundering with the nauseous when they undoubtedly mean nauseated, or to keep practically everybody else from dropping a leaden hopefully into sentences already foundering with the nauseous when they undoubtedly mean nauseated, or to keep practically everybody else from dropping a leaden hopefully into sentences already foundering with the nauseous when they undoubtedly mean nauseated, or to keep practically everybody else from dropping a leaden hopefully into sentences already foundering with the nauseous when they undoubtedly mean nauseated, or to keep practically everybody else from dropping a leaden hopefully into sentences already foundering with the nauseous when they undoubtedly mean nauseated, or to keep practically everybody else from dropping a leaden hopefully into sentences already foundering with the nauseous when they undoubtedly mean nauseated, or to keep practically everybody else from dropping a leaden hopefully into sentences already foundering with the nauseous when they undoubtedly mean nauseated, or to keep practically everybody else from dropping a leaden hopefully into sentences already foundering with the nauseous when they undoubtedly mean nauseated, or to keep practically everybody else from dropping a leaden hopefully into sentences already foundering with the nauseous when they undoubtedly mean nauseated, or to keep practically everybody else from dropping a leaden hopefully into sentences already foundering with the nauseous when they undoubtedly mean nauseated, or to keep practically everybody else from dropping a leaden hopefully into sentences already foundering with the nauseous when they undoubtedly mean nauseated, or to keep practically everybody else from dropping a leaden hopefully into sentences already foundering with the nauseous when they undoubtedly mean nauseated, or to keep practically everybody else from dropping a leaden hopefully into sentences already foundering with the nauseous when they undoubtedly mean nauseated, or to keep practically everybody else from dropping a leaden hopefully into sentences already foundering with the nauseous when they undoubtedly mean nauseated, or to keep practically everybody else from dropping a leaden hopefully into sentences already foundering with the nauseous when they undoubtedly mean nauseated, or to keep practically everybody else from dropping a leaden hopefully into sentences already foundering with the nauseous when they undoubtedly mean nauseated, or to keep practically everybody else from dropping a leaden hopefully into sentences already foundering with the nauseous when they undoubtedly mean nauseated, or to keep practically everybody else from dropping a leaden hopefully into sentences already foundering with the nauseous when they undoubtedly mean nauseated, or to keep practically everybody else from dropping a leaden hopefully into sentences already foundering with the nauseous when they undoubtedly mean nauseated, or to keep practically everybody else from dropping a leaden hopefully into sentences already foundering with the nauseous when they undoubtedly mean nauseated, or to keep practically everybody else from dropping a leaden hopefully into sentences already foundering with the nauseous when they undoubtedly mean nauseated, or to keep practically everybody else from dropping a leaden hopefully into sentences already foundering with the nauseous when they undoubtedly mean nauseated, or to keep practically everybody else from dropping a leaden hopefully into sentences already foundering with the nauseous when they undoubtedly mean nauseated, or to keep practically everybody else from dropping a leaden hopefully into sentences already foundering with the nauseous when they undoubtedly mean nauseated, or to keep practically everybody else from dropping a leaden hopefully into sentences already foundering with the nauseous when they undoubtedly mean nauseated, or to keep practically everybody else from dropping a leaden hopefully into sentences already foundering with the nauseous when they undoubtedly mean nauseated, or to keep practically everybody else from dropping a leaden hopefully into sentences already foundering with the nauseous when they undoubtedly mean nauseated, or to keep practically everybody else from dropping a leaden hopefully into sentences already foundering with the nauseous when they undoubtedly mean nauseated, or to keep practically everybody else from dropping a leaden hopefully into sentences already foundering with the nauseous when they undoubtedly mean nauseated, or to keep practically everybody else from dropping a leaden hopefully into sentences already foundering with the nauseous when they undoubtedly mean nauseated, or to keep practically everybody else from dropping a leaden hopefully into sentences already foundering with the nauseous when they undoubtedly mean nauseated, or to keep practically everybody else from dropping a leaden hopefully into sentences already foundering with the nauseous when they undoubtedly mean nauseated, or to keep practically everybody else from dropping a leaden hopefully into sentences already foundering with the nauseous when they undoubtedly mean nauseated, or to keep practically everybody else from dropping a leaden hopefully into sentences already foundering with the nauseous when they undoubtedly mean nauseated, or to keep practically everybody else from dropping a leaden...
Now BIC VENTURI™ puts to rest some of the fables, fairytales, folklore, hearsay and humbug about speakers.

Fable

Extended bass with low distortion requires a big cabinet.

Some conventional designs are relatively efficient, but large. Others are small, capable of good bass response, but extremely inefficient. The principle of BIC VENTURI systems (pat. pend.) transforms air motion within the enclosure to realize amplified magnitudes of bass energy at the BIC VENTURI coupled duct as much as 140 times that normally derived from a woofer (Fig. A). And the filtering action achieves a smooth increase in output as Fig B. Result: pure extended bass from a small enclosure.

B-Shows output of low frequency driver when driven at a freq. of 22 Hz. Sound pressure reading: 90 dB. Note poor waveform.

C-Output of venturi coupled duct, (under the same conditions as Fig B) sound pressure reading 115.5 dB, 140 times more output than Fig. B. Note sinusoidal (undistorted) appearance.

Fairy tale

It's okay for midrange speakers to cross over to a tweeter at any frequency.

Midrange speakers cover from about 800 Hz to 6000 Hz. However, the car is most sensitive to midrange frequencies. Distortion created in this range from crossover network action reduces articulation and musical definition. BIC VENTURI BICONEX horn (pat. pend.) was designed to match the high efficiency of the bass section and operates smoothly all the way up to 15,000 Hz, without interruption. A newly designed super tweeter extends response to 23,000 Hz, preserving the original sonic balance and musical timbre of the instruments originating in the lower frequencies.

Folklore

Wide dispersion only in one plane is sufficient.

Conventional horns suffer from musical coloration and are limited to wide-angle dispersion in one plane. Since speakers can be positioned horizontally or vertically, you can miss those frequencies so necessary for musical accuracy. Metallic coloration is eliminated in the BICONEX horn by making it of a special inert substance. The combination of conical and exponential horn flares with a square diffraction mouth results in measurably wider dispersion, equally in all planes.

Hearsay

A speaker can't achieve high efficiency with high power handling in a small cabinet.

It can't, if its design is governed by such limiting factors as a soft-suspension, limited cone excursion capability, trapped air masses, etc. Freed from these limitations by the unique venturi action, BIC VENTURI speakers use rugged drivers capable of great excursion and equipped with voice coil assemblies that handle high power without "bottoming" or danger of destruction. The combination of increased efficiency and high power handling expands the useful dynamic range of your music system. Loud musical passages are reproduced faithfully, without strain; quieter moments, effortlessly.

Humbug

You can't retain balanced tonal response at all listening levels.

We hear far less of the bass and treble ranges at moderate to low listening levels than at very loud levels. Amplifier "loudness" or "contour" switches are fixed rate devices which in practice are defeated by the differences in speaker efficiency. The solution: Dynamic Tonal Compensation™. This circuit (patents pending) adjusts speaker response as its sound pressure output changes with amplifier volume control settings. You hear aurally "flat" musical reproduction at background, average, or ear-shattering decibel levels—automatically.

FORMULA 2. The most sensitive, highest power handling speaker system of its size (193½ x 12 x 11½). Heavy duty 8" woofer, BICONEX mid range, super tweeter. Use with amplifiers rated from 15 watts to as much as 75 watts RMS per channel. Response: 30 Hz to 23,000 Hz. Dispersion: 120° x 120°. $98 each.

FORMULA 4. Extends pure bass to 25 Hz. Has 10" woofer, BICONEX midrange, super tweeter. Even greater efficiency and will handle amplifiers rated up to 100 watts. Dispersion: 120° x 120°. Size: 25 x 13⅛ x 13½. $136 each.

FORMULA 6. Reaches very limits of bass and treble perception (20 to 23,000 Hz). Six elements: 12" woofer complemented by 5" cone for upper bass/lower midrange; pair of BICONEX horns and pair of super tweeter angularly positioned to increase high frequency dispersion (160° x 160°). Size: 26½ x 15¼ x 14¾. $239 each.


BRITISH INDUSTRIES Co., Inc.
Westbury, New York 11590.
A division of Avnet, Inc.
Canada: C.W. Pointon On Westbury, New York 11590.
BRITISH INDUSTRIES Co., Inc.
Westbury, New York 11590.
A division of Avnet, Inc.
Canada: C.W. Pointon, Ont.
BIC VENTURI

MARCH 1974
Don't Shoot the Player Piano
- Irving Kolodin's low opinion of reproducing player pianos, as revealed in his "Choos- ing Sides" column on Gershwin (January), puzzled me. So I put Gershwin's piano-roll recording of Rhapsody in Blue on my Duo-Art Steinway to see if it was indeed the "awkward, angular, unattractive" object he said it is. Not at all. In fact, it proceeded to "delight the senses anew with body, bouquet, and bite," which left me all the more puzzled. Now, I have a very high regard for Mr. Kolodin. I cut my musical teeth on his New Guide to Recorded Music back in 1947 (I still have and treasure the book). So I am left with two possible explanations: (1) I can't recognize an unattractive work when I hear it, or (2) Mr. Kolodin has never heard a reproducing player piano that was properly tuned, regulated, and adjusted.

Naturally, I hope it is the latter. It would not surprise me, because the reproducing piano was one of the most complex and temporary machines ever made. It is possible that the Kolodin Ampico, weary of being fed Duo-Art fodder, gave up trying to digest even the Ampico rolls that had been made for it. But the point is, they can be adjusted to produce exquisite musical results. I believe mine is so adjusted, and if Mr. Kolodin feels it would serve any useful purpose, I would be honored if he would come and hear it the next time he is in Chicago. Perhaps then we could settle whether explanation number one or two is correct.

Meanwhile, I am not about to throw out my disc recordings, but then when the gentle ghost of the divine Wanda, for example, saunters herself at my piano—slippers, robe, and all—and begins to spin out the exquisite tracery of a Mozart sonata just for me, I am not about to throw out my piano rolls either!

As a music lover I am much concerned with the dwindling supply of vinyl owing to the current petroleum shortage. I suggest that the industry set up procedures to collect discs people don't want any more—there must be millions just lying around in homes over the country.

Vinyl Analysis
- James Goodfriend's "Going on Record" in the January issue seems to accept the senseless popular notion that anything other than combustion of petroleum products is a relatively frivolous use, to be particularly curtailed by the present shortage. The curtailment, however, should be confined to combustion and should be drastic enough to permit extension of other oil uses which now consume a scarcely significant part of the whole. Long before the immediate, politically caused deficiencies, it was pointed out by scientists that our oil would in time run out and that (even by crass commercial measurements) the value of a barrel of it in terms of its potential derivatives—plastics, antibiotics, and petrochemicals in general—is so many thousand times greater than its value as fuel that it is stupid to burn it up for purposes better served by bicycles and feet. Mr. Goodfriend's "the less oil, the less vinyl" would be replaced, rationally, by "the less oil for burning, the more for making things."

The solution to the polyvinyl chloride shortage and to the pollution crisis as well is to begin at once a rapid phasing out of all gadgets such as automobiles which burn fractions of petroleum (or of any fossil fuel, for that matter). And I propose that, as each jalousy is forcibly retired, its former owner would be compensated, at government expense, with its monetary equivalent in PVC pressed with Bach and Mozart. (The revenue should come from revoking the oil depletion allowance.) Suddenly enriched by several hundred hours of infinitely repeatable music, these people could then stay at home without fretting for the road. They could listen, groove, know joy—in short, be men and women.

-. .

More Ivie Anderson
- In reference to Chris Albertson's fine review of the superb Ivie Anderson and Duke Ellington set on Columbia (January), I may add that those interested in Ivie's work with Duke on RCA Victor can find six of the ten sides on the following discs: I Got It Bad and That Ain't Good on RCA VPM 6042; Me and You, Five O'Clock Shuffle, Chocolate Shake, and Jump for Joy are on LPV 517; and Hayfoot, Strawfoot is on LPV 541.

Hines and Gershwin
- Congratulations to Stanley Dance on his delightful article on jazz pianist Earl "Fatha" Hines (January) and to Henry Pleasants for the "Gershwin Season" in the same issue. I found both just wonderful.

Carpenter Controversy
- In defense of Peter Reilly: do people really need a review of the Carpenters at all? They're on TV so much lately—why write about them? Also, despite the "nonreview" complaints, the complainers bought the album anyhow, didn't they? What do they want in a review, a mere table of contents with indications as to the key in which each song is performed, the tempo, etc.? Ultimately, they're reading a review, not hearing the record via a magazine, write on, Reilly!

More More
- Amazing. I can't imagine anyone getting so upset one way or the other about the Carpenters (Letters, January). To me, they are about as controversial or exciting as tapioca pudding, which I would also detest if I could summon the energy to care that much.

The people responding to Peter Reilly's review in the November issue seem unaware of one of rock's primary functions. Psychologists tell us that a certain amount of adolescent rebellion is both normal and necessary if a child is to achieve emotional independence, or whatever you call it, from his parents—in other words, to grow up. Rock has helped articulate and perhaps relieve the fears, anxieties, and resentments (including rebellion against parents) of growing up for an awful lot of kids, myself included. If this element is removed from rock music, that rebellion will surface in other, perhaps more dangerous or destructive ways. But then, the Carpenters have never really been rock-and-rollers in my book anyway.

What most disturbs me about the letters in the January issue, and some in several other issues as well, is their total lack of humor. I mean, these people sound almost as deadly serious as some "progressive" rock freaks I know. Good grief. In my own defense I might (Continued on page 10)
The KENWOOD 'Two-Four' Receivers give you all the great new 4-channel sounds, plus the finest 2-channel reproduction.

A unique 'strapping' circuit more than doubles the RMS output per channel when you turn that simple switch from 4- to 2-channel mode. For example, 17 watts x 4 (RMS Power at 8 ohms, 20-20kHz) automatically becomes 40 watts x 2 for the KR-6340. Just one of the many features that make switching to 4-channel with KENWOOD completely irresistible:

- Built-in SQ, RM, Discrete, plus Optional CD-4 Plug-In Adapter
- Full 4-Channel Control Center
- Direct Coupling for Minimal Distortion
- Exclusive DSD in the MPX for Unexcelled Channel Separation
- And much, much more!

For complete specifications write...

KENWOOD

15777 S. Broadway, Gardena, Calif. 90248
72-02 Fifty-first Ave., Woodside, N.Y. 11377
In Canada: Magnasonic Canada, Ltd.

CIRCLE NO. 27 ON READER SERVICE CARD
add that I'm not crazy about the David Bow-
ies or Alice Coopers either, but they are at
least good for a laugh, which the Carpenters,
except through the medium of Mr. Reilly's re-
view, have never provided me.

Thanks to Peter Reilly and your other re-
viewers for pointing out and denouncing the
pretentiousness, calculating commercialism,
and artistic laziness that seem always ready to
encourage popular music. What else is criticism
for, anyway? We need the gaddly in all areas of
our lives. Incidentally, you will recall that
Socrates was also accused of corrupting the
young. How does Mr. Reilly like his helm-
lock served up?

LINDA FREDERICK
Lebanon, Ohio

Straight, with a twist.

Lori and Roberta

- Certain quotes attributed to myself and to
Norman Gimbel in the Lori Lieberman story
in your December issue have been taken in-
correctly by your reporter, Todd Everett, and
I find it extremely necessary to correct those
quotes and therefore correct certain innuendoes
which I feel are damaging.

Norman was quoted in the article as saying that
Roberta Flack has recorded three songs
from Lori's first album, when in fact what he
did say was that she was interested in three
songs specifically and therefore dispensed certain
innuendoes which I feel are damaging.

In his December issue of Stereo Review,
Noel Coppage's article "Lo, the Mighty Harp!" made an admirable attempt to touch on all aspects of harp playing. But I was dis-
appointed when there was not even a mention of
probably the greatest blues-harp player of our time,
the late Al Wilson of Canned Heat fame. His un-
timely death was a great loss to the world of
blues, and Mr. Coppage does a great disser-
tive to Wilson and his fans in bypassing this
great musician. John Lee Hooker, the great
black blues artist, called Wilson the greatest,
and any article concerning harp players is incomplete without mention of Wilson.

KENNETH PELKER
Massapequa, N.Y.

- In his harp story in the December issue,
that idiot Noel Coppage forgot to mention the
late Al Wilson, the very harp player he was
thinking about—listening to, in fact—when it
occurred to him to deliver unto the world a
harp story. Wilson was not, in my judgment,
a better player than those who did receive some
small acknowledgement, but he was one of the
best, if not the best, of the latter-day rock-
ers and rollers and blue-eyed bluesers. He had
considerably been reaching a young players if
I am continually running into it—and that is one
of the reasons why the harmonica is more
prominent these days. Don't know why he got
left out unless it is true, as the jug player
(tentative) in my jug band (tentative) claims,
that trying to bend the notes in the top three
holes of a harp leads to brain damage, loss of
memory, double vision, and falling mustache.

NOEL COPPAGE
East Hideout
Somewhere in New England

Of Kings and Cassettes
I had no idea, until I read the first item in
Larry Klein's column ("Audio News," De-
cember), that cassettes had been around for
only ten years, and that when he started it all,
I appreciate the historical note, as I went
to cassettes about three years ago, directly
from mono records.

Would you be interested in knowing that
cassettes are mentioned in the New Testa-
mant? I may be reaching a bit for this one, but
(Continued on page 12)
BASF: The guaranteed jamproof cassette.

More music is recorded on BASF cassette tape than on any cassette in the world. And less music is lost, stuck, jammed, distorted than in any other cassette in the world.

Because BASF has the only important mechanical innovation that has been built into cassettes. BASF’s patented Special Mechanics eliminates distortion and wow; and guarantees no jamming, sticking or snapping. That’s true of every cassette we make from the low-noise extended range; the low-noise high-output; to the ultimate cassette, our Chromdioxid™. And they are available in all popular lengths.

And remember — we invented recording tape. For over forty years we've been improving our invention. It's the finest in the world.

For more information write BASF Systems, Crosby Drive, Bedford, Mass. 01730 or call 617-271-4000.
There is a distinct difference between tape equipment mass-produced by a consumer manufacturer and tape equipment built by a professional audio manufacturer. At Crown International this distinct difference involves five things: over-engineering, rugged construction, hand-crafting, exhaustive testing and conservative rating.

A tape deck undergoes over 100 hours exhaustive testing and conservative rating. The French word “cassette,” meaning “casket” or “box,” is actually used in the Jerusalem Bible, which was translated into French from original sources. Referring to the visit of the Magi, Matthew wrote in the eleventh verse of his second chapter: “... puis, ouvrant leurs cassettes, ils lui offrirent en présent de l’or, de l’encens et de la myrrhe” (“... and when they had opened their treasures, they presented unto him gifts; gold, and frankincense, and myrrh”).

Charles J. Sheedy
Woodhaven, N.Y.

**Starshiner**
- I am grateful to Paul Kresh for his laudatory review of my “Stars of the Apollo” album in the December issue. I am not, however, responsible for the production of this set. I am rather unhappy about the giving the credit to John Hammond.

Chris Albertson
New York, N.Y.

The Music Editor replies: Both Mr. Kresh and I apologize to Mr. Albertson for the error. While John Hammond’s name is liberally sprinkled across the four covers of the album, there is a definite statement on it that it was “produced by Chris Albertson,” and we should not have missed it.

**Classical Rookies**
- Your article “Classical Rookies” (January) just doesn’t make it. The only person interviewed who came up with a viable answer was Arthur Fiedler, who took into account rock music as music and not just the “... ear-deafening, mind-deafening” noise described by Hans Werner Henze. Mr. Henze is obviously totally against rock, whereas although Mr. Fiedler may not enjoy it, he realizes some other people do.

Being nineteen myself, I have a preference for good rock music, and it isn’t always deafening. I can turn the volume down on the home stereo. At a live concert maybe it is loud, but I’m also sure you can get into the same volume levels at climaxes during a live classical concert.

Another point made by Mr. Fiedler was that curiosity about other types of music will lead to branching out. This is so true. I’m not a Fiedler fan-club letter, but it’s not. It’s just as a Fiedler fan-club letter, but it’s not. It’s just that when you print an article containing twelve interviews and only one is down to earth and true, it sets me wondering about the worth of the entire thing.

C. Engerbretsen
Port Reading, N.J.

Or perhaps it only goes to show that what performers know about is performing, and only listeners know about listening? Even negative results are useful.

**Introduction to Rock**
- To the lover of classical music who needs help in his first explorations of rock, I would suggest Frank Zappa’s Hot Rats” (Bizarre 6356) and his “Weasels Ripped My Flesh” (Bizarre 2028).

John Gunnung
London, Ohio

---

**BOOKS RECEIVED**

Compiled by Louise Gooch Boundas


In addition to a short biography of Berkeley, the director or choreographer of some of the most famous movie musicals of the Thirties, Forties, and Fifties, this book contains a discussion (with complete credits) of each of his films. As his films are lavish, well chosen, and well reproduced, this is a beautiful book, probably essential to any collection on the history of the movies.


The largest section of the book is a complete listing of all the songs from Broadway and Off-Broadway shows from 1925 through 1971, plus about three hundred others from important productions dating back to 1900. The songs are listed alphabetically by title, and the names of the composer and lyricist are provided for each song, as well as the title and premiere date of the production in which the song was first sung. Another section is an alphabetical listing of musical shows with authorship credits, song titles, information about vocal scores and record albums, etc. Also included are a chronological list of shows and an index of composers and lyricists. This is a useful reference work in a field where scholarship has been rare.


This revised edition is an updating of a brief survey of music for the ballet, which was originally published in 1958. The revisions have not removed a faint aura of British provincialism, but the book remains a serviceable introduction to the subject. An appendix of details of first performances is interesting, but the discography is too haphazard to be of much use.


Sargeant’s profiles of six operatic superstars—Joan Sutherland, Marilyn Horne, Beverly Sills, Birgit Nilsson, Leontyne Price, and Eileen Farrell—support his contention that as far as sopranos are concerned, the Golden Age of opera singing is now. Most of the material in the book originally appeared in The New Yorker.

**DISCOGRAPHIES**

- Discography Series: No. VI, Mendelssohn Vocal Music; No. VII, Richard Strauss Lieder; and No. XI, Debussy and Ravel Vocal Music, by Peter Morse. Available by mail, for $2 each, from J. F. Weber, 1 Jewett Place, Utica, N.Y. 13501.
The new Discwasher and dll superior fluid-improved record care for $12.95 from your audiospecialist. Replacement dll fluid $2.25.

Send 25¢ and a self-addressed stamped envelope for our Technical Bulletin Clean Records and Chemistry, to find out what's happening to your records today.

Discwasher, Inc., 909 University Avenue, Columbia, Missouri 65201
ESS Model 200
Stereo Power Amplifier

- THE Model 200 is the second stereo power amplifier to be introduced by ESS, and it offers many of the performance characteristics of the original Model 500 with somewhat less power-output capability. Specifications rate the amplifier at a minimum of 100 watts per channel continuous into 8 ohms with both channels driven simultaneously from 20 to 20,000 Hz. Harmonic and intermodulation distortion is 0.05 percent (typically half that amount) at rated output or below with any frequency or combination of frequencies over the full audio bandwidth. Frequency response at 1 watt is ±1 dB from 12 to 133,000 Hz: ±0.75 dB at 20 Hz the damping factor is 100. The amplifier has an input impedance of 47,000 ohms, and a signal input of 1.5 volts drives it to full output. Protective circuits act to limit the output of the amplifier under conditions of excessive current or voltage. The amplifier has a brushed-gold metallic faceplate accented with a black Plexiglas strip. Approximate dimensions are 16¼ x 6 x 13 inches. Price: $399. An oiled walnut cabinet is optional at $30.

Hear-Muffs QM-440
Four-Channel Headphones

- A four-channel model is now available from Hear-Muffs, incorporating four 3½-inch drivers positioned so that one pair rests just in front of the ears, the other pair just behind, when the phones are worn. Like the other Hear-Muff products, the QM-440 "Quadramuffs" are thickly padded with soft polyurethane foam and covered by removable (and washable) velour fabric. The phones are worn around the back of the head, like a high collar, so that the foam padding forms a cushion for a listener who is reclining or lying down. Spring-steel headbands that shape the foam padding can be bent by hand pressure to provide the desired amount of clamping force on the head. The frequency response of the phones is rated as 20 to 18,000 Hz. Impedance is compatible with headphone jacks intended for 4- to 16-ohm phones. Power-handling capability is 1 watt. The phones have an integral 10-foot coiled cable terminating in two standard color-coded phone plugs for the front and rear channels. Weight is 26 ounces, exclusive of cable. Price: $49.95. The fabric covers are available in several different colors and patterns.

Toujay Equipment Cabinet Plans

- As a service to audiophiles who can't find or afford equipment housing that really suits their needs, Toujay is offering a set of six plans for easy-to-assemble cabinets that permit the builder to choose his own lumber and finish. All the cabinets are of simple shelf-type construction, with dimensions alterable at the builder's discretion. Several can be installed either horizontally or vertically: one plan describes a modular system, based on identical rectangular bins, that can be expanded to any size desired. Toujay has designed the construction of the cabinets around a two-piece locking corner connector that permits easy rearrangement and/or dismantling of the ensemble. A sample connector is included with each set of plans for a total cost of $2 ($1 of which is credited toward subsequent purchases of more connectors). Alternatively, a $10 order buys the plans plus a sufficient number of connectors (thirty-two) to assemble the cabinet pictured at left. Send check or money order to: Toujay Designs, Inc., Dept. SR, 443 Park Avenue South, New York, N.Y. 10016. Prices include the cost of postage.

Magneplanar Tympani Loudspeakers

- AUDIO RESEARCH CORP. has announced the latest models in its evolving series of Magneplanar "Tympani" speakers and speaker systems. The new systems, Tympani IA, Tympani II, and Tympani III, supersede the previous models in the Magneplanar line. Also available are mid-range/tweeter units (Tympani III-TM) for use with low-frequency drivers of the purchaser's choice, and the Tympani III-W bass drivers to reinforce the low-frequency performance of existing systems.

The Magneplanar speakers resemble full-range electrostatic designs in appearance and radiation characteristics. However, they are actually dynamic drivers, employing large Mylar-film diaphragms bonded to thin-wire "voice-coil" grids. Flat bars of magnetic material distribute a uniform magnetic field over both sides of the diaphragm. According to the manufacturer, the speakers present an essentially resistive impedance of 8 ohms to the amplifier.

All the Tympani systems are made up of hinged panels that are 6 feet high, 16 inches wide, and 1 inch deep; they are entirely covered in acoustically transparent fabric. The Tympani IA (shown) is a three-panel array with a frequency response of 50 to 15,000 Hz ±3 dB. The similar Tympani II has two panels, with low-frequency response extending down to 60 Hz within the same tolerances. The largest full-range system, the Tympani (Continued on page 16)
It's the feeling you get when the music really reaches you. Which may not be often unless you frequently go to live concerts.

Until now, no sound system could give you the "ambiance" and sense of realism that you hear at a live performance. That's why two CBS engineers invented the Leslie Plus 2® Speaker System. On October 16, 1973 Leslie Speakers/Electro Music was awarded U.S. patent #3,766,317 for a breakthrough in sound design. It was the first patent ever granted for effectively dealing with the "standing wave problem" - a technical phenomenon that robs stereo of its "live" qualities.

The new Leslie system produces a dynamic multi-directional or "Multi-planar" sound, thereby providing the listener with the sense of realism of a live concert. The Leslie Plus 2 system consists of two high-performance speaker systems with their own built-in and matched amplifiers. When added to conventional stereo systems, they expand the capabilities of the system to play either stereo or quadraphonic records with dynamic "Multi-planar" sound... at any location in the room...and at any sound level.

Test your stereo for 50¢. We have produced a special first-quality test record with isolated signal tones and test music. Put your stereo through its paces. Then take the record to your franchised Leslie Plus 2 dealer. Listen to the same music. And you be the judge!

Leslie Speaker Model 430
Leslie Speaker Model 450

Leslie Speakers

I want to put my stereo to the test! Please send your 7" LP test record. 50¢ is enclosed for postage and handling.

NAME
ADDRESS
CITY STATE ZIP

Electro Music, CBS Musical Instruments, A Division of CBS, Inc. Leslie and Plus 2 Speakers are registered trademarks of CBS, Inc.

CIRCLE NO. 27 ON READER SERVICE CARD
NEW PRODUCTS

from Audio Research in passive or ac-"feedback," with an external network (available from Audio Research in passive or active configurations) to cross over at 100 Hz. All systems have internal crossover networks dividing at 1,600 Hz with slopes of 6 dB per octave. Sound-pressure levels between 90 and 95 dB are produced at a distance of six feet from the speakers with an input of 10 watts continuous at 500 Hz.

Amplifiers with continuous per-channel output ratings of up to 500 watts can be used with the Tympani I. If you have four-channel sources, you can use the Tympani II, which handles inputs up to 250 watts, but in the mid-range/tweeter and bass sections of the Tympani III have power-handling capabilities of 350 watts each. The Tympani I's and II's are sold in stereo pairs at $1,095 and $795 per pair, respectively. The complete Tympani III stereo system costs $1,595. The Tympani III-TM ($850 per pair) and III-W ($795 each) are essentially the corresponding sections of the Tympani III system. All the Magneplanar speakers are available with a choice of grille fabrics.

Circle 118 on reader service card

**Lafayette SQ-W**
**Four-Channel Decoder**

- The most elaborate consumer form of SQ matrix decoding to date is offered by Lafayette in the new SQ-W four-channel decoder, with SQ "wave-matching" logic and the recently developed variable-blend technique (called "Vari-blend" by Lafayette). The new circuitry, which replaces the front-back "gain-riding" logic of previous SQ decoders, augments the front-back separation by mixing (blending) the front and rear pairs of decoder outputs in controlled amounts to electrically cancel "leakage" information. The blend coefficients are not fixed; they can vary from moment to moment according to the encoded "positions" of source sounds in the incoming program (position information is converted into control signals that adjust the Variblend coefficients).

In addition to its SQ facilities, the SQ-W incorporates the familiar COMPOSER A and B circuits (for enhancement of two-channel material and approximate decoding of other matrixed recordings), inputs for discrete four-channel sources, and conventional stereo operation. A rotary switch selects these operating modes. The other front-panel controls are master volume (affecting all four channels), a tape-monitor pushbutton (to replace the receiver or amplifier tape-monitor facilities that will be taken up by the SQ-W's installation), and an on/off pushbutton. The unit's dimensions are 14 1/2 x 27 1/2 x 11 1/2 inches; its metal cabinet has a simulated walnut finish. Price: $99.95. Circle 119 on reader service card

**Dokorder Model 7140**
**Four-Channel Tape Deck**

- The Model 7140 from Dokorder is at present the least expensive ($549.95) four-channel record-playback tape deck to offer full Sel-Sync operation (Dokorder's name for this is "Multi-Sync"), enabling the user to synchronize any new material with a previously made recording on another tape track. The three-motor transport is entirely solenoid controlled, with tape speeds of 7 1/2 and 3 3/4 ips and a pause switch. Each channel has its own recording- and playback-level controls and tape-monitor pushbutton. The three-head design permits sound-on-sound and echo effects, with a special control provided for adjusting level. Microphone and line inputs are accepted, but without mixing capability. Tape reels of up to 7 inches in diameter are accommodated, and a retracting pinch roller moves out of the way to simplify tape threading. Dual front-panel headphone jacks that will drive 8-ohm phones carry the front- and rear-channel signals.

The Dokorder 7140 can be used with both standard and low-noise, high-output tapes: a switch sets the recording bias appropriately for either type. With the latter tape, specifications include a frequency response of 40 to 20,000 Hz \(\pm 3 \text{ dB} \) at 7 1/2 ips, and 40 to 12,000 Hz \(\pm 3 \text{ dB} \) at 3 3/4 ips; the signal-to-noise ratio exceeds 55 dB at 7 1/2 ips. Wow and flutter for the two speeds are 0.08 and 0.12 per cent or less. A 1,800-foot reel of tape can be fast-wound or rewound in 95 seconds. The recording-bias frequency is 130 kHz. Overall dimensions of the deck are 17 3/4 x 16 3/8 inches. Circle 120 on reader service card

**BGW Model 250**
**Stereo Power Amplifier**

- The latest and smallest in the BGW line of stereo power amplifiers is the Model 250, described as a scaled-down version of the Model 500R for applications in which a lower continuous-power output rating will suffice. With 8-ohm loads, continuous output is 90 watts per channel, both channels driven simultaneously. The Model 250 will drive loads as low as 2 ohms (two 4-ohm speakers in parallel, for example), in which case continuous power output is 170 watts per channel. Frequency response is flat within 0.25 dB from 20 to 20,000 Hz, and harmonic distortion is less than 0.2 per cent at any power level up to rated output. Signal-to-noise ratio exceeds 100 dB; damping factor is greater than 500 below 500 Hz.

The Model 250 employs six heavy-duty output transistors per channel, and has the company's unique "SCR crow bar" protection circuitry. Additional protection is afforded by a circuit breaker in series with the power transformer's primary winding. Construction of the amplifier is modular, with each channel on its own heat sink. Dimensions: 19 x 5 3/4 x 11 1/8 inches. Price: $429. Circle 121 on reader service card

**THE LATEST IN HIGH-FIDELITY EQUIPMENT**
Columbia announces the brand new Quadraphonic Music Service and invites you to take any 3 QUAD records or cartridges for $1.00

An important new service from the world’s largest manufacturer of quad recordings

Now there’s a great way to get the quadraphonic records and cartridges you want! It’s the brand-new Columbia Quadraphonic Music Service—and it brings you the same savings and convenience that made the Columbia Record & Tape Club the world’s largest for regular stereo!

Look over the selections on this page. They give you an idea of the kinds of great entertainment you can choose from as a member: classical, popular, rock, country—the best-sellers from Columbia and many other leading recording companies.

Think of it! No more searching through record stores for quad recordings...no more limiting your selections to whatever they happen to stock...no more buying an album in stereo and then discovering it was also available in quad! And, as a new member, you get to pick any three albums on this page—all three for just $1.00.

Your only membership obligation is to buy just four more quad albums (at the regular Service prices of $6.98 for records, $7.98 for cartridges, plus processing and postage) in the coming year...quad recordings you’ll want to buy anyway if you could find them! But you won’t have any trouble finding them—because you’ll receive our music bulletin, Quad Review, regularly every four weeks (13 a year). And from time to time, we may send some special issues of the Review—offering extra-special savings!

This colorful and informative brochure will tell you about the great new quad recordings as soon as they’re released. We’ll also select an outstanding new release as your Selection of the Month—but there is no obligation to accept it...order only the recordings you want when you want them!

A special response card will be enclosed with each Review...you may use it to order or reject any selections offered simply by mailing it by the date specified. And if you want only The Selection of the Month, you need do nothing—it will be shipped to you automatically. What’s more, you’ll have at least ten full days in which to make your decision—if you don’t, just return The Selection of the Month at our expense and you will receive full credit for it.

You may cancel your membership at any time after you’ve purchased four selections—or continue under our special bonus plan, which offers you at least 33% savings on all future purchases. So it’s all here...the convenience, the savings, the selections you want...and right from Columbia, the largest manufacturer of quadraphonic recordings in the world! Choose your three albums now and mail the application with $1.00 today!

NOTE: SO quad records may be played on your present stereo phonograph with full fidelity and complete stereo effect. However, quad cartridges can only be played on a quad cartridge system only.

Columbia Quadraphonic Music Service
Terre Haute, Indiana 47808

I am enclosing check or money order for $1.00 as payment for the three quad recordings indicated below. Please accept my membership application under the terms outlined in this advertisement. I agree to buy four selections (at regular Service prices) in the coming year...and may cancel membership at any time after so doing. Send my three selections in this type of recording (check one):

□ Quad Cartridges □ Quad Records

262

Send me these 3 Quad recordings for $1.00

MY MAIN MUSICAL INTEREST is (check one):

□ CONTEMPORARY 7  □ CLASSICAL 1

□ Mr. □ Mrs. □ Miss (Please Print) □ First Name □ Initial □ Last Name

Address:

City:

State...Zip:

Do You Have A Telephone? (Check one) □ YES □ NO

APO, FPO addresses: Write for special offer.

NOTE: All applications are subject to review and Columbia House reserves the right to reject any application.

P85/574
IT'S AS FAR AS 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 FOUR-CHANNEL 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 RECEIVERS 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
CAN PIN DOWN A STATION WITH SUCH 'HAIR-SPLITTING ACCURACY.'

AND LIKE OTHER HARMAN/KARDON PRODUCTS, THE 900-CARR ES ULTRA WIDEBAND CIRCUITRY. THIS ABILITY TO REPRODUCE FREQUENCIES YOU CANNOT HEAR, SIGNIFICANTLY IMPROVES THE CHARACTERISTICS OF THOSE FREQUENCIES YOU CAN HEAR. HARMAN/KARDON PRODUCTS ARE WORLD FAMOUS FOR THEIR FIDELITY. IF YOU ARE IN QUEST OF THE PERFECT SOUND, THIS COULD BE WHAT YOU'RE LOOKING FOR.

harman/kardon

55 AMES COURT, PLAINVIEW, N.Y. 11803, U.S.A. ALSO AVAILABLE IN CANADA
CIRCLE NO. 17 ON READER SERVICE CARD
Watergating?

Q. I find myself faced with at least one of the problems dealt with so inepitely by the White House: that is, how to capture on tape conversations taking place in my office. My past attempts at such tapings using a quality recorder and good microphone have usually produced an unclear jumble unless the speaker was very close to the microphone. (I have not yet had any difficulty with inexplicable hum and blank spots on tape nor subsequent loss of the tapes.) Do you have any helpful suggestions?

Harry Childers
Newark, N.J.

A. Since you haven’t asked me about the legality or morality of your intended taping—or even explained your purpose in making the tapes—I will refrain from wading into those murky waters. Technically, the problem comes under the heading of signal-to-noise ratio, the signal being, of course, the voice or voices you wish to capture on tape. The noise, which is obscuring the voices, is produced primarily by the room reverberation (echo) picked up by the microphone along with the voices. And, of course, there is some slight additional noise (hiss) generated internally by the recorder’s electronics. The interfering reverberation or echo can be coped with in several ways. The best approach, of course, is to get the microphone as close as possible to the person(s) speaking. The direct sound of the voices will then be heard with better intelligibility even though its volume level may be lower than that of some closer potentially interfering sound source. (You can check out the cocktail-party effect—and its dependence on binaural hearing—by focusing on one of several conversations taking place around you, then blocking off one ear. You’ll find a severe loss of both localization and intelligibility.) Listening with stereo headphones to a stereo tape made with two microphones will therefore provide a great enhancement of clarity by enabling the listener to psychoacoustically “subtract” from them the accompanying reverberation and other noises. Using a four-channel recording setup with the four microphones placed in a square surrounding the conversation area will allow the transcriber wearing a good pair of four-channel or normal stereo headphones (connected to a not-too-complicated switch box) to change the acoustic perspective by switching among the signals picked up by each adjacent pair of microphones.

The final step in achieving clarity for transcription would be the use of a one-third-octave filter device to peak up those frequencies that contribute toward intelligibility and depress the rest. And, of course, the tape recorder used should be a high-quality open-reel unit and have two functions built-in or available as accessories: an automatic recording-level control and a device that starts the recorder with the onset of sound. By the way, are you by any chance in politics, Mr. Childers?

Dolby-de-noiser?

Q. I have several stereo tapes that have been recorded from FM and records. Much of this music contains static and other strange noises. Would a Dolby unit installed in my stereo system get rid of enough of this noise to make it worth the cost?

Karl W. Avery
Carbondale, Col.

A. (Old-timers among my readers will forgive me if I give this perennial question another go-round—I still get about two letters a week asking it.) No, Mr. Avery, the Dolby system can do nothing about noise that is already in the program material. The only thing Dr. Dolby has ever claimed his system can do is to prevent certain kinds of noise from being added to the program material by the tape-recording process. It cannot—repeat—cannot remove noise from program material if that noise was present in the signal before the tape was Dolby “encoded.”

DIN Tape-jack Sensitivity

Q. I have several stereo tapes that have been recorded from FM and records. Much of this music contains static and other strange noises. Would a Dolby unit installed in my stereo system get rid of enough of this noise to make it worth the cost?

Leonard Ferenza
Trenton, N.J.

A. The input pins of the DIN socket in some tape recorders are connected in parallel with the microphone input jacks rather than the high-level “line” or “aux” inputs. Feeding a high-level signal of 0.5 volt into a mike input designed to accept perhaps 0.005 volt is going to produce just what you got—severe overload distortion. So, either you’ll have to rewire the DIN socket on your recorder or install some signal attenuating resistors at the plug to reduce the tape-output voltage from your preamplifier to a suitable level. The exact values of the resistors will have to be determined by trial and error, or possibly your recorder manufacturer may have some recommendations. As to why this strange state of affairs should be, it comes about because the DIN inputs have been designed to accommodate the very low signal levels provided by some European equipment.
For those content to settle for mere greatness in an automatic.

We'll be the first to admit it. There is a more advanced automatic turntable than our Miracord 760. It's our own Miracord 50H Mark II, and it costs about $35 more.

But to call the Miracord 760 "second best" is to call a Bentley "just another car."

For the similarities between the 760 and its more expensive big brother are rather awesome.

They begin with ELAC's unique push-button control system that takes the jolt and jar (however slight) out of operation, and permits enjoyment of ELAC's remarkable versatility with nary a thought about record damage caused by shake, rattle and roll.

And the 760 tracks with dead accuracy at as low as 1/4 gram stylus pressure (even when the turntable isn't on a level surface). Stylus force is applied at the pivot, in grams, by adjusting a calibrated scale. Anti-skating force is similarly adjustable, with equal precision.

Pitch control? Of course. Like our top-of-the-line Mark II, the 760 allows you to vary speed over a 6 percent range (equal to a semi-tone in pitch). And a built-in stroboscope allows for simple, unerring speed adjustment.

The family resemblance continues right on down to the twelve-inch, one-piece die-cast turntable platter, dynamically balanced for smooth, steady performance and speed that never varies.

The difference? It's in the motor. The 760 has a specially-designed spectacularly consistent asynchronous motor. Its speed accuracy is virtually unsurpassed in the audio field.

Except, perhaps, by the 50H Mark II. At $35 more.

Clearly, if the ultimate in fidelity is what interests you, you're bound to wind up with an ELAC. The only question is whether you want mere greatness. Or a little bit more.

For some assistance in making the decision, may we send you literature on the entire ELAC line? It may simplify your choice when you visit your ELAC dealer to hear these remarkable automatics in action.

A word of caution. All of our turntables are handcrafted. Because it's the only way to ensure the kind of precision that ELAC stands for. This means neither the 760 nor the 50H Mark II may be readily available at your corner audio dealer's.

Frankly, we'd rather be great than easy to get. If you find yourself having to shop around for our turntables, take comfort in this obvious fact: you don't find a Rolls Royce dealer on every corner. Because greatness can't be mass produced.


MIRACORD 760
How else would you describe a preamplifier with:

- A Peak Unlimited that restores dynamics lost in recording to closely approximate the original.
- A Downward Expander that reads "gain riding" and expands dynamics down to precisely the intended level.
- An AutoCorrelator that makes record/tape hiss and FM broadcast noise virtually vanish without affecting musical content.
- Plus an Active Equalizer that gives you flat energy distribution over the full audio spectrum, Joystick Balance and Step Tone Controls that allow precise music tailoring to your listening environment and SQ* and Phase Linear differential logic for Quad Sound.

The 4000 is an advanced stereo preamp that actually puts back in what recording studios take out... lets your music (at last) reach life-like levels without distortion... lets you (for the first time) hear your music from a silent background. It is, in a word, incredible. Ask your dealer for an audition.

Price: $599
Cabinet: $37
Warranty: 3 years, parts & labor.

In coming months expect to see announcements of some startlingly novel high-cost preamplifiers with previously unavailable functions and features. The philosophy behind most of them has to do with the sonic shortcomings of recorded music. If everything in the recording/manufacturing chain from the microphones to the finished disc were in fact perfect, then the perfect component need be nothing more than a "straight wire with gain." However, we are all aware of the noise, distortion, compression, limiting, etc. that find their way accidentally or on purpose, into virtually all program material before it gets onto tape or disc. Obviously a preamplifier that can do something about these problems will bring the listener closer to the original reality than a "perfect" preamplifier that simply handles program material without introducing further deterioration. And so we will find all sorts of very sophisticated "correction" circuitry built into the new equipment.

And it seems almost a "natural" development that a few of the acoustically concerned preamplifier designers are beginning to look at the other end of the reproducing chain also. There is at least one product on the drawing board that, with an accessory microphone, will measure (and enable you to correct for) the specific room-acoustic conditions at your listening location. The day may be just around the corner when the only real difference between the electronic gear in a recording studio or acoustic laboratory and an advanced audiophile's home recording and playback equipment will be the brand names on the front panels.

As I was writing the above, I received a call from Infinity Systems, responding to what I thought was a blue-sky fantasy in my January column. Infinity's new power amplifier, which uses both the toroid high-frequency power supply and the class-D operation I wrote about, will be available in perhaps three or four months. It isn't quite pocket size, since it is designed to fit into a 19-inch-wide rack. However, it is only 3½ inches high and 10 inches deep, and if you eliminate the chassis and case, it weighs so little that Infinity is afraid of a credibility problem. After all, how powerful can an amplifier be if you can lift it easily with only one hand? Well, Infinity rates it conservatively at more than 200 watts of power per channel, continuous!
Separation saved our marriage thanks to Marantz speakers.

"Where's the flute Henry?" my wife complained constantly. I was about ready to leave her. Then we saw a Marantz dealer. He told us that separation of sound is a true test of a speaker system. He suggested we put Marantz and other popular speakers to the test by listening to a familiar recording so we'd be able to hear for ourselves that it's the speaker and not the recording that makes the difference. Oh, what a difference Marantz made! What we thought were two oboes were clearly an oboe and a flute. And that barbershop quartet...well, they're really a quintet.

The proof is in the listening. And that's where Marantz design concepts come into play. The transducers in Marantz speaker systems are engineered to handle an abundance of continuous power, so you get distortion-free sounds that are as pleasing as a nibble on the ear.

We bought the Marantz Imperial 5G Two Way Speaker for just $99. Perfect for our budget and it delivers fine sound separation even with minimum power equipment. And there are five other quality Marantz speaker models starting as low as $59 and all are available with the new Marantz acoustically transparent foam grill.

Whatever your power and budget requirements, keep this in mind. Marantz speaker systems are built by the people who make the most respected stereo and 4-channel equipment in the world.

To find out how much better they sound go to your nearest Marantz dealer and listen. Marantz

We sound better.
Now...the most enjoyable, do-it-yourself project of your life—a Schober Electronic Organ!

You'll never reap greater reward, more fun and proud accomplishment, more benefit for the whole family, than by assembling your own Schober Electronic Organ. You need no knowledge of electronics, woodwork or music. Schober's complete kits and crystal-clear instructions show you—whichever you are, whatever your skill (or lack of it)—how to turn the hundreds of quality parts into one of the world's most beautiful, most musical organs, worth up to twice the cost of the kit.

Five superb models, with kit prices from $50 to around $2,000, each an authentic musical instrument actually superior to most you see in stores. Join the thousands of Schober Organ builders-owners who live in every state of the Union. Often starting without technical or music skills, they have the time of their lives—first assembling, then learning to play the modern King of Instruments through our superb instructions and playing courses.

Get the full story FREE by mailing the coupon today for the big Schober color catalog, with all the fascinating details!

---

GLOSSARY OF TECHNICAL TERMS – 8

- **CD-4** (compatible discrete four-channel) is the trade name for the four-channel phonograph-disc system developed originally by JVC in Japan. The system manages to get four separate (discrete) channels of audio information into a record groove by recording the extra two (or, more properly, the additional information necessary to recover all four of the channels) in the form of FM modulation of a very high frequency signal (30,000 Hz). These separate high-frequency modulations, which are impressed on each groove wall in addition to the normal left- or right-channel stereo signal carried by that wall, vary in frequency from 20,000 to 45,000 Hz. Such records are called "Quadradiscs."

- The CD-4 system generally provides excellent separation between channels, but it requires a phono cartridge with exceptional high-frequency response to pick up all the recorded information, as well as a special decoder (generically termed a demodulator) to sort it out and present it as the intended four-channel program. Such demodulators are available as separate components, or as circuits built into some of the latest four-channel receivers. When Quadradiscs are played on reproducing systems not so equipped, all the music is heard, but as conventional two-channel stereo.

- **Damping**, in the audio sense, is the technique of applying mechanical friction or its electrical equivalent to a device in order to control mechanical or electrical resonances. The style of most phono cartridges are damped by the elastic material in which they are mounted in order to control high-frequency response peaks. The damping used in speaker systems is frequently mechanical (the suspension), acoustical (the port arrangement and Fiberglas filling), and electrical (see damping factor below).

- **Damping Factor (DF)** is an amplifier specification that expresses the ratio of speaker impedance (usually assumed to be a nominal 8 ohms) to the output impedance of the driving amplifier. For example, a DF of 10 indicates that the amplifier has an output impedance equaling one-tenth the speaker's impedance—that is, 0.8 ohm.

A high damping factor is considered desirable because a speaker, much like almost any electric motor, can be brought to a stop more quickly after the driving signal has ceased if a very low impedance (in effect, a short circuit) is placed across its terminals. Theoretically, "braking" a speaker rapidly improves transient response. However, the consensus among experts is that a DF of 10 to 20 is adequate for this purpose.

- **dB** (decibel; one-tenth of a bel) is a logarithmic ratio that is useful because it can express very large quantities in comparatively small numbers. A full definition of the decibel belongs in a physics or engineering textbook. Suffice it to say, for basic understanding, that a decibel is the change in loudness of a sound (as it usually is in these pages), represents about 0.1 dB. The background-noise level of the "average" residence is approximately 35 dB; music-listening levels are generally in the range of 80 to 95 dB, and sound begins to become uncomfortably loud when it reaches 115 dB or so.
Superb performance - lavish engineering - a new standard in high fidelity

THE ALL NEW REVOX 700 SERIES
Stereo Tape Recorder A700 Digital Stereo Tuner/Pre-amplifier A720 Power Amplifier A722

Revox Corporation in USA: 155 Michael Drive, Syosset, NY 11791 & 3637 Cahuenga Blvd. West, Hollywood, California 90068
Revox in England: Lamb House, Church Street, London W12PB
Revox Sales and Service in Canada.
Dual presents the 701.
The quietest turntable ever made.
The new Dual 701 is a significantly different kind of turntable—with an entirely different type of motor and a unique solution to the problems commonly introduced by resonance.

**Vibration-free direct-drive electronic motor.**

The 701 has an all-electronic, brushless, DC motor that rotates at actual record speed, either 33-1/3 or 45 rpm. The motor and platter form a common rotating mass (weighing 9.7 pounds) and the record spindle is actually the top of the motor shaft. This low-speed, direct-drive system does not introduce any vibration; thus can be mounted directly to the chassis without isolation.

**Gapless rotating magnetic field.**

The 701 motor has a number of exclusive features that eliminate problems common to all other electronic motors.

Dual's unique field coil design consists of two stacked coil layers, each with eight coils, offset by 22.5° so that each coil overlaps a gap in the other layer. The result: a perfectly smooth rotating magnetic field with no magnetic flux irregularities.

In addition, each coil is bifilar-wound, freeing the motor from hysteresis or eddy-current losses.

**Instantaneous electronic speed control.**

Since the motor is energized by a regulated power supply, it is impervious to variations in line frequency or voltage.

In addition, speed is monitored by an electronic feedback system using two Hall-effect generators. A voltage induced from the motor's magnetic field is continuously checked against the constant voltage of the regulated power supply. Any difference between these voltages is detected and fed back to adjust the current to the coils, thus instantaneously correcting even the minutest variations in motor speed.

**The solution to resonance feedback problems.**

A potential problem in all record playback systems is the natural resonant period of the tonearm/cartridge system and the turntable chassis. When resonant energy from such mechanical disturbances as acoustical feedback, record warp, or room vibration reaches the stylus, distortion is the inevitable result.

Resonance has emerged as a practical problem with the increasing sophistication of associated equipment. For example, with amplifiers that can respond all the way down to DC. Or with speakers that can introduce extremely high energy levels into the room.

Dual's unique solution: two mechanical, anti-resonance filters located within the tonearm counterbalance. One is tuned to the resonant frequency range of the tonearm/cartridge, the other to the resonant range of the chassis. These filters absorb resonant energy that would otherwise transmit feedback to the stylus. The result: frequency response is cleaner and smoother, since the stylus is able to respond to the signals in the record groove itself without interference.

**Other precision features of the 701.**

The 701 is a fully automatic single-play turntable. (Its functional operation is identical to all other Duals when used in the single-play mode.)

The tonearm is mounted in a four-point low-friction gimbal suspension. The tracking pressure dial has 0.10 gram calibrations from 0 to 1.5 grams. Anti-skating is calibrated separately for conical and elliptical styli. Cue-control is damped in both directions. Pitch control is electronic and is set independently (8% range) for each speed.

For those who want to know more.

We have a six-page full color brochure on the 701, with detailed descriptions of the motor and anti-resonance filters. Because of these unique features, the 701 is slightly quieter than the Dual 1229, but any difference you detect will be minor. So if you now own a 1229, or any other current Dual, we suggest you don't trade it in for the 701.

Unless, of course, you are among those who would be happy only with the quietest turntable ever made, regardless of cost.


CIRCLE NO. 50 ON READER SERVICE CARD
Add the new Sony SQA-2030 decoder/amplifier and two speakers to your present stereo system and you’re into four channel. And what four channel!

Full logic IC circuits increase separation—side to side, front to back. SQ records and broadcasts are reproduced with rock-and-concert-hall realism.

Matrix recordings and broadcasts, other than SQ, discrete four channel tapes (with a quad deck), retain the excitement of the original performance. Even stereo records take on new depth.

And the SQA-2030 gives you something extra—a built-in stereo amplifier. It delivers 18 + 18 watts RMS into 8 ohms at every frequency in the audio range (20-20,000 Hz)—plenty of power to drive your back channel speakers. It’s distortion-free (THD less than 0.8%). And it’s easy to enjoy. Once you’ve balanced your system, the SQA-2030’s master volume control is about all you’ll have to adjust.

Thanks to new integrated circuits, developed and manufactured by Sony, this full logic decoder, control center and stereo amplifier is housed in a cabinet about half the size of a standard receiver. It costs just $239.50.

Sony offers two other choices to go four channel. The full logic SQD-2020 has all the quality and control convenience of the SQA-2030 plus four calibrated VU meters to help you balance your system visually. If your stereo system has high power output, add a basic amplifier of equal power plus two speakers. The SQD-2020 costs $229.50.

Add full logic SQ to an existing four channel system. Or upgrade stereo to four channel (an integrated amplifier and two speakers are required).

The full logic SQD-2070 is an inexpensive choice, $89.50.

Go four channel with Sony. It’s very logical

SONY®

Introducing the $240 full logic decoder.

With an amplifier to boot.
SPEAKER TESTS VS. SPEAKER SOUND: Judging by my mail, many readers seem as unhappy as I am with the seeming inability of acoustic measurements to "describe" the specific sound quality of a loudspeaker. The problem of scientifically quantifying human subjective response and correlating it with objective measured data is basic, and intrudes in many areas of human perception other than sound. It is probably not necessary for me to point out how far we are from being able to work up, with measurements alone, a "complete" numerical description of a speaker system's performance that will tell an engineer precisely how the speaker will sound. Nevertheless, we do have an evaluating tool at our disposal that does not depend either on having all the necessary data or on a simple subjective evaluation. I'm referring to the simulated live-vs.-recorded test that, in effect, compares an original sound against a speaker's ability to reproduce it accurately. As we have pointed out on several occasions (see August 1973 issue), although the test is very useful, it does have a number of limitations—enough that we all would be much pleased if an even better method of speaker evaluation could be devised; but so far I see no signs of one.

A reader writes to ask why our measurements of the bass distortion and frequency response of a speaker often seem to lack correlation with our subjective sonic appraisal of its performance. In a way, this has its paradoxical aspects. With close miking, it is possible to make repeatable and acoustically meaningful measurements of a speaker's bass performance virtually independent of the room characteristics. Unfortunately (or perhaps fortunately), few of us listen with our ears pressed to the speaker's grille, so that the sound we hear is heavily influenced by room resonances and absorption. Our measurements provide clues to the relative bass performance of different speakers, under conditions of identical placement in the same room, and with the same listening positions used for all subjective comparisons. Readers should not infer any more meaning than this from our comments on bass response.

One reason why two speakers with very different measured low-frequency responses may sound much the same at their low ends has to do with the limited low bass content of most program material. The majority of musical works—even those employing instruments capable of low bass output—usually contain little energy below about 60 Hz. Obviously, when comparing two otherwise identical speakers, if one cuts off at about 60 Hz and the other goes down to 35 Hz or so, they will usually sound very much alike on most material. Most recordings simply do not have enough energy in the 30- to 60-Hz octave to reveal speaker differences in that range.

It frequently happens that a speaker with reduced output in the very low bass sounds "heavier" than one with a bass response that actually goes lower. A slight rise in output in the 70- to 100-Hz range (2 or 3 dB is enough) can easily give the illusion of a strong bass response, since the lowest fundamentals of the program are likely to fall in that range. To further complicate matters, the listening room can have a far greater effect—for better or worse—at the lowest frequencies than the actual differences between many speaker systems. This is one reason why a speaker that seems to have exceptional bass in your listening room may not display any such characteristic in our tests.

Bass-distortion measurements, depending on how they are interpreted, can indicate how loud a speaker can play without excessive distortion (nonlinear distortion is usually greatest at low frequencies because of the increased cone excursion), or they can merely suggest a useful lower frequency limit, one below which harmonic distortion rises rapidly as the fundamental-frequency output drops off. Our tests fall into the latter category. At a modest drive level (such as 1 watt), the woofer distortion remains fairly constant down to some critical "break-point" frequency (typically in the 50- to 70-Hz range for compact speakers) and then rises abruptly. Increasing the drive-signal level merely shifts the break-point frequency upward, usually by only a few hertz. If the driver signal is controlled so that a constant acoustic sound-pressure level (SPL) is maintained, the "break" becomes very sharp indeed, since the speaker's natural fall-off of response may necessitate rather high input power at low frequencies. The actual distortion percentages may seem excessive in comparison to those of the electronic components, but it is well documented that for various psychoacoustic reasons, several per cent of low-bass distortion is rarely noticeable.

As far as we are concerned, there is little to choose between constant drive level and constant SPL distortion measurements. Either method will tell us where the speaker "lets go" and is no longer an effective bass reproducer, but neither is much help in revealing how a given speaker will actually sound in normal use. The previously mentioned effects of room acoustics and program
limitations can overshadow almost anything short of a gross difference between speakers (for example, two speakers with 50-Hz and 80-Hz break points will probably sound very different, but one could not make such a confident prediction if they were 40 and 50 Hz).

We have limited this discussion to the low bass, since it seems to have aroused the greatest reader comment and also is the easiest part of the speaker's spectrum to "measure"—if not to evaluate. At middle and high frequencies, the problems are much more severe. Modern technology has made possible a host of highly sophisticated measurements, resulting in a mass of data which can tax the interpretive abilities of the most technically trained audiophile, and would surely overwhelm the average reader. But even with a mountain of such data available, it remains a regrettable fact that the only way still to tell how a speaker sounds is to listen to it!

EQUIPMENT TEST REPORTS
By Hirsch-Houck Laboratories

Sansui QRX-3500 AM/FM Four-Channel Receiver

- The Sansui QRX-3500 is a four-channel AM/stereo FM receiver featuring Sansui's new Vario-Matrix decoder, a unit that is claimed to provide exceptional channel separation with both QS- and SQ-encoded material. The direct-coupled audio amplifiers of the QRX-3500 are conservatively rated at 15 watts per channel, with less than 0.5 per cent total harmonic (THD) or intermodulation (IM) distortion from 20 to 20,000 Hz, all four channels driven. With one channel driven, the rated output is 22 watts into 8 ohms, or 30 watts into 4 ohms.

The Sansui QRX-3500 is relatively large—20%4 inches wide, 13%6 inches deep, and 7%8 inches high—and weighs almost 41 pounds. Its satin-gold front panel has separate bass and treble tone controls for front and rear channels (with eleven detented positions), and separate left-right balance controls for front and rear channels. The low- and high-cut filters, operated by pushbuttons, affect all channels. To the right of this group of controls are a front-rear balance knob and a master volume control. The function switch selects 2 CH, QS SYNTHESIZER, QS REGULAR MATRIX with separate surround and hall settings (they provide different separation characteristics between front and rear channels), PHASE MATRIX, and DISCRETE modes. The last of these can be used with a four-channel tape deck (there are full monitoring provisions for one two-channel and two four-channel tape decks), or with an external CD-4 demodulator. The selector switch has settings for PHONO, FM AUTO, FM MONO, AM, and two 4-CH inputs. Pushbuttons control LOUDNESS, tape monitoring for the three recorders, and FM MUTING. At the left side of the panel are separate headphone jacks for front and rear channels and a pushbutton power switch.

The upper third of the panel contains a black-out tuner dial scale with linear FM-frequency calibrations at intervals of 0.25 MHz. Above and to the left of the dial scales, illuminated words appear to clearly identify the selected operating mode and program source. The illuminated tuning meter reads relative signal strength for AM and FM reception, and the tuning knob operates a smooth flywheel mechanism. On the rear apron are the signal-input and -output terminals, including insulated spring-loaded connectors for speakers and antennas. A LOCAL/DISTANT switch attenuates the antenna signals to prevent overload by strong local FM stations. The 2-CH tape-monitoring jacks are paralleled by a DIN connector, and another socket is provided for use with the optional QBL-100 Remote Control (a four-channel "joystick" device for balance plus a slider volume adjustment for all channels). The AM ferrite-rod antenna slides out a couple of inches from the rear apron, but does not rotate or pivot. There are two a.c. outlets, one of which is switched, and an input-voltage selector plug that adapts the receiver for line voltages from 100 to 240 volts. The price of the Sansui QRX-3500, including a wooden walnut-finish cabinet, is $599.95. The QBL-100 Remote Control is $35.

- Laboratory Measurements. The audio amplifiers clipped at 29 watts per channel with two channels driven, and at 24.2 watts per channel with all four channels driven. These measurements were made at 1,000 Hz with 8-ohm loads. The two-channel power at clipping into 4 ohms was 41 watts per channel, and with 16-ohm loads it was 18 watts per channel.

The total harmonic distortion (THD) was below the noise level at power outputs under 1 watt, where it measured 0.023 per cent, falling to 0.012 per cent at 10 watts and reaching 0.1 per cent at the clipping point of approximately 30 watts. The IM distortion was 0.027 per cent at 0.1 watt, 0.058 per cent at 25 watts, and 0.25 per cent at 30 watts. The IM remained at insignificant levels at very low power output (0.26 per cent at 1 milliwatt), indicating the relative absence of crossover distortion. We used 25 watts per channel as our reference full-power rating (two channels driven), and found that the maximum THD was only 0.23 per cent at 20 Hz and less than 0.08 per cent from 45 to 20,000 Hz. At half power and less, the distortion remained essentially below 0.08 per cent from 20 to 20,000 Hz, and was typically less than 0.03 per cent.

The amplifiers could be driven to a 10-watt output level with 9.2 millivolts (AUX) or 1.45 millivolts (PHONO). The signal-to-noise ratio (S/N) through either input was a very good 75 dB, referred to 10 watts. The phono-input overload of 120 millivolts was also better than average. The tone-control characteristics were good, with a sliding bass-turnover frequency moving from below 100 Hz to above 500 Hz, and high-frequency control hinging at about 2,000 Hz. The filters had gradual 6-dB-per-octave slopes, with the -3 dB points being 120 and 3,000 Hz. The loudness control provided moderate boost of both lows and highs.

The phono equalization of the QRX-3500 was very accurate—within ±0.5 dB from 30 to 15,000 Hz (actually from 20 to 20,000 Hz, which exceeds the RIAA
timeout: 0
Now – a unique experience for lovers of the arts

TIME-LIFE RECORDS presents

RICHARD WAGNER'S "RING"

This unparalleled 4-opera cycle, especially produced for stereo with a “dream” cast, orchestra, and conductor, is offered here in an extraordinary TIME-LIFE presentation that unlocks its secrets and brings out all its majestic beauty. The result is a peak cultural experience in home enjoyment of the arts.

Prove it to yourself by accepting the complete package shown on the next page for FREE 10-DAY EXAMINATION

You are invited to enjoy free for 10 days an extraordinary cultural adventure.

You will receive the first of four linked music-dramas by Richard Wagner, as Part I of the grandest operatic work of all time, "The Ring of the Nibelung." And with it, you will receive background material which makes the music and characters come alive with startling vividness, power, and meaning right in your living room.

Like the literature of Shakespeare and the art of Michelangelo, the music-drama of Wagner is a towering artistic achievement that should be an essential part of your cultural experience.

Yet, surprisingly enough, many people who genuinely enjoy good music have never discovered the sheer listening enjoyment of Wagner's greatest work, "The Ring of the Nibelung." It has been difficult to find and collect satisfactory recordings of the complete work, and equally difficult to know how to approach this fascinating but intricate masterpiece.

Wagner Made Irresistible

Now, thanks to TIME-LIFE RECORDS, a once-in-a-lifetime combination of the arts of composing, conducting, performing, recording, writing, and publishing is opening up the enjoyment of "The Ring" to a wider audience of music lovers.

Took 7 Years to Record

The centerpiece of this superlative presentation of "The Ring" is a remarkable series of recordings by London Records that took seven years to complete. Instead of trying merely to record existing productions on the operatic stage, an inspired producer obtained permission from London Records to produce the entire work exclusively for stereo recording.

Internationally Acclaimed

This recorded production of "The Ring" has won unprecedented international acclaim. Wrote Paul Hume of The Washington Post, "London's cycle is not merely a landmark in the history of the musical art but represents the art and science of recording at its greatest." And the English hi-fi publication, The Gramophone, called the TIME-LIFE presentation "an enterprise that will leave its mark for more than a generation."

What is "The Ring"

"The Ring" is a revolutionary form embodying Wagner's ideal of a "total art work" — the intricate fusion of the arts of drama, singing, and symphonic music that thrills and involves the listener. It tells of a magic ring forged from the gold treasure stolen from the Rhine- maidens by a dwarf or Nibelung, making him master of the world; of the curse the dwarf put on the ring when he is tricked out of it by Wotan, chief of the gods; of the ill-fated romance between Siegmund and Sieglinde, son and daughter of Wotan; and the adventures of his heroic offspring, Siegfried.

It is a story that runs the gamut of human emotions from love to hate, adoration to envy, forgiveness to implacable anger. It deals with the highest of human actions, such as sadism, greed for power and gold, vengeance, as well as the most lofty, such as courage, heroism, sacrifice, pure love. And all expressed in music of such dazzling splendor and richness that it has never been surpassed.

The Miracle of Stereo Recording

Wagner's libretto and score call for many special effects which even the most ambitious opera company finds impossible to stage. Only in the recording studio can there be created so convincingly the illusion of the Rhine-maidens swimming to and fro, or a tenor changing suddenly into a baritone as Siegfried pretends to be someone else wooing his fair Brünnhilde.

And where Wagner's score calls for six harps for the Rainbow Bridge music, there are six harps (almost never heard in an opera house). Instead of the usual offstage clanking sound effects for the sound of the dwarfs hammering gold, eighteen real anvils were used.

For Donner's hammer striking the rock, a special steel sheet twenty feet by five feet was constructed, hung, and struck by two strong men. For Hagen's horn call and the answering calls, the score indicates steertoons: most orchestras use trombones but this time special steertoons were fashioned by an old instrument maker. And for a horn call by a different character, Switzerland was combed for a huge elongated horn about 15 feet in length, still used in the Alps to summon cattle over long distances.

The All-Star Cast

The most illustrious operatic cast ever assembled on one 'stage' was hand-picked for this special production. It includes virtuoso performances by Birgit Nilsson, Dietrich Fischer-Dieskau, Wolfgang Windgassen, Hans Hotter, and George London. Two legendary stars, Kirsten Flagstad and Joan Sutherland, consented to sing relatively minor roles simply to participate in this historic event. "When Flagstad sang her first line," the producer recalls, "the entire orchestra turned around to gaze in amazement, so extraordinary was the authority and power of her voice."

And the musical world generally agrees with the appraisal of the producer that the conductor, Sir Georg Solti, is "the great Wagner conductor".

(continued on next page)
An opportunity to enjoy the achievement of all time in
of our time. For ten years he was Musical Director of London's Covent Garden Opera. He is now Conductor of the Chicago Symphony Orchestra and Advisor to the Paris Opera. He is the only conductor to have won nine awards of the French Grand Prix du Disque.

The Choice of the Vienna Philharmonic
The use of the Vienna Philharmonic for all four operas, over a seven year period, provides an extraordinary artistic unity and texture for the entire work. "No other orchestra in the world can approach the Vienna Philharmonic when it comes to what an orchestra is about,'" writes the producer, "the sense or instinct through which suddenly a hundred men become a single musical instrument of infinite flexibility. It is the single most precious jewel in the heritage of orchestral performance in Europe.

Following the Story Made Easy
Following the story is made easy by a booklet for each opera, containing a synopsis of the story and a German/English parallel translation. Thus to the sheer musical enjoyment is added the excitement of Wagner's powerful unfolding plot.

To tell his story, Wagner devised his own musical language of melodic themes or leitmotifs, which identify characters, elements of Nature, and recurring thoughts and moods. In the 3-record Introduction to "The Ring" which is included in the first shipment, a noted musicologist identifies all of these motifs, gives you musical examples, and shows you how they are blended and developed.

3 Bound Volumes of Rich Background
Your enjoyment will be further enhanced by knowing more about the work, the composer's life, and the fascinating inside story of the production. The first shipment also includes a unique boxed set of three handsome library volumes, splendidly illustrated and with covers stamped in gold:

1. GEORGE BERNARD SHAW, "The Perfect Wagnerite"; delightful, impudent essays on "The Ring" presenting his own social interpretation of the dwarfs as the ill-treated laboring classes, the giants as skilled artisans, and the gods as the privileged ruling class.

2. RICHARD WAGNER: THE MAN, HIS MIND, AND HIS MUSIC, by Robert W. Gutman. A frank, irreverent view of the master's life, generally considered the best one-volume Wagner biography of our time, 335 pages, magnificently illustrated with more than 400 paintings, drawings, photographs, maps, and charts, many in full color.

3. RING RESOUNDING, by John Culshaw, the London Records producer's own inside story of the most impressive achievement in the history of recorded music.

Send No Money, Just Mail Card
Start your own at-home "Wagner festival" by mailing the card for the first part of "The Ring" shown here and enjoy it free for 10 days. Then if you are enthralled and wish to continue, you may keep it and complete your set on the terms outlined in the card. Otherwise simply return everything within 10 days and forget the matter. Mail card today.

To unlock the secrets of Wagner's greatness you get all this in your first shipment FREE FOR 10 DAYS' EXAMINATION

1. DAS RHEINGOLD complete on 3 LP records.

2. SYNOPSIS—PLUS COMPLETE TEXT IN ENGLISH AND GERMAN SIDE BY SIDE.

3. COMMENTARY ON "THE RING" ON 3 RECORDS AND IN PRINT—IDENTIFYING 193 EXAMPLES OF WAGNER'S "MOTIFS."

4. A 3-VOLUME LIBRARY OF FASCINATING BACKGROUND

- RICHARD WAGNER, The Man, His Mind, and His Music, by Robert W. Gutman.
- RING RESOUNDING, by John Culshaw. The producer's own inside story of this 7-year recording achievement.
- THE PERFECT WAGNERITE, by George Bernard Shaw. Witty and penetrating essays on the meaning of "The Ring."
most outstanding music-drama
a towering performance

The Ring of the Nibelung

A cycle of four operas by RICHARD WAGNER...performed by the Vienna Philharmonic and an all-star cast led by Sir Georg Solti

AWARDED THE HIGHEST INTERNATIONAL HONORS GIVEN TO ANY RECORDINGS, including a special "Grammy" award from the American National Academy of Recording Arts and Sciences and the premier European honor, the Grand Prix du Disque Mondiale.
defined limits). The equalization was affected only slightly by phono-cartridge inductance, with a maximum loss (with a high-inductance cartridge) of 2 dB at 15,000 Hz and 3 dB at 20,000 Hz. This is considerably better than we have measured on most receivers and amplifiers.

The FM-tuner section had an IF sensitivity of 2.6 microvolts (µV). The 50-dB quieting sensitivity was 3.6 µV (mono) at 1.35 per cent THD. The ultimate distortion at higher signal levels was 0.16 per cent (mono) and 0.35 per cent (stereo), and the ultimate S/N was 73.5 dB (mono) and 63 dB (stereo) at a 1,000-µV input. The transition from stereo to mono FM took place smoothly and gradually as the input-signal level was reduced from 40 to 25 µV. The interstation-noise muting threshold was 12 µV. The FM capture ratio was 1.75 dB (rated 2 dB). AM rejection was 49 dB, which is adequate. The image rejection of 77 dB (good) was slightly better than the rated 75 dB. The QRX-3500's alternate-channel selectivity rating is 50 dB, which is a moderately low value, though adequate in most listening situations. However, its measured selectivity was somewhat better: 51.5 dB above the signal frequency and 65 dB below. The 19-kHz pilot-carrier leakage was a low -69.5 dB. The frequency response with a stereo FM signal was very good, within ±1 dB from 30 to 15,000 Hz. Channel separation was excellent, exceeding 21 dB from 30 to 15,000 Hz, and better than 40 dB through the important mid-range. The AM frequency response rolled off at low and high frequencies—to −6 dB at 50 and 3,300 Hz.

Although our evaluation of the Vario-Matrix performance was largely subjective, we were able to make measurements of channel separation between various channels with the help of a Sansui QS-encoded test record. The side-to-side separation was about 12 dB in front and 14 dB in the rear. Along the left and right sides, the separation was 7 to 10 dB front-to-back, and it was 15 to 20 dB across the diagonals. Other separations, from the centers of each side of the “square” to the others, and to the corners, were typically 10 to 20 dB.

**Comment.** If one were to consider only its audio-power and tuner-performance parameters, the Sansui QRX-3500 would appear to be simply another good stereo receiver. But it is more than that. In the important areas of audio and FM distortion, signal-to-noise ratio, and channel separation, it is well above the average for contemporary receivers, and in many ways it is comparable to the best separate components.

As so often happens, the real merits of this receiver are not apparent from its measured performance alone. It is perhaps best characterized as smooth in every sonic respect. There are no turn-thumps or clicks, no audible switching transients, and it has one of the best FM interstation-noise muting systems we have come across. Signals are either heard, with full quieting and low distortion, or are totally absent, with no noise, thumps, or modulation bursts as the unit is tuned across the FM band. The FM dial calibration is very accurate, although we would have preferred 200-kHz calibration intervals to correspond to U.S. channel spacings, rather than the 250-kHz intervals provided. The tape-monitoring flexibility of this receiver is outstanding: not only can three tape decks be handled, but it is possible to dub from a two-channel deck (such as a cassette recorder) to either of a pair of two- or four-channel recorders, or from one of the latter to the other. The lack of switched speaker outputs for more than one set of four speakers should not cause inconvenience to most users.

Having heard a public demonstration of the Vario-Matrix a year ago, we were anxious to put one through its paces in our own listening environment. We were not disappointed in its performance. The very limited separation characteristics of the basic QS (or RM) matrix have been enhanced by an ingenious “logic” system. Unlike others, this does not vary the channel gains to accentuate separation. Instead, it monitors the phase angle between the incoming left and right

(Continued on page 40)

---

**Note:** curves were made with the receiver in the four-channel mode, with two channels driven (one measured) to equal power outputs.
way out!

Tape cassettes and cassette recorders were once regarded pretty much as novelties. Sure, they were great for voice recordings, but they weren't taken seriously by hi-fi buffs. Then along came TDK's Super Dynamic, the tape that started a revolution in the industry. It gave the cassette true high-fidelity capability for the first time, thereby stimulating the development of improved cassette recorders.

As a result, manufacturers of both tape cassettes and cassette recorders started turning out better and better products. So today the question is "how well do they match each other in performance capability?" And with the development of TDK's great new Dynamic-series of cassettes, the whole world of sound reproduction has changed.

When it comes to matching or exceeding the performance capabilities of present-day cassette recorders, TDK's new Dynamic series is way out front. Extra Dynamic (ED) cassettes offer an entirely new dimension in recording fidelity that is vastly superior to any other cassette now on the market. Super Dynamic (SD), the tape that started it all, still has better-balanced total performance characteristics than any other brand made and is available in cassette or open-reel format. And Dynamic (D) is an entirely new hi-fi cassette offering excellent quality at moderate prices, with characteristics superior to most "premium" cassette tapes.

So, if you want to be sure of using cassettes that provide the best total performance on any recorder... for performance capabilities that are and always will be ahead of the industry... discover the dynamic world of TDK!
channels and uses this to continuously modify the matrix coefficients to achieve the desired signal directionality.

The Vario-Matrix works exactly as claimed. We could never hear any "pumping" or other gain-riding side effects, yet the subjective effect was almost totally unambiguous in its directionality—in other words, it is very close to "discrete."

In the PHASE MATRIX position of the function switch, the matrix is modified for SQ decoding, and the Vario-Matrix provides a considerable improvement over the simple SQ matrix found in other four-channel receivers (or, for that matter, over the partial or "front-rear" logic four-channel receivers (or, for that matter, over the partial or "front-rear" logic units we have tested). We would judge that the subjective separation heard with SQ recordings is not equal to that obtained with the latest "full-logic" SQ systems, but it is the next best thing.

A significant and valuable feature of the Sansui, in our opinion, is its SQ synthesizer function. All matrix decoders can provide a rear-channel ambience signal from stereo program material, and despite the vagueness and lack of side-to-side directionality, such "ambiance extraction" provides a worthwhile improvement over two-channel listening.

Sansui has taken a giant step in the direction of synthesizing four channels from two by cross-blending (with controlled phase shift) some portion of each stereo channel with the other. When the processed signal is passed through the Vario-Matrix decoder, the outputs consist of four distinctly different channels. In effect, the stereo stage is wrapped around the listening room so that full left or right signals appear at the corresponding rear speakers, with the overall spread of the program smoothly distributed along the sides to the front of the room, and then toward the front center (where mono sounds still originate).

It may seem hard to believe, but our ears tell us that this system gives a better "four-channel" effect with most stereo program material than the majority of the four-channel matrixed records we have played through the various less-than-full-logic matrix decoders. Recognizing that most four-channel reproduction is not aimed at recreating an "original concert-hall reality" for the listener, and bearing in mind the ambiguous directionality of the typical matrix reproduction, we see this feature as a significant advantage of Sansui's synthesis approach. Few listeners, we believe, would be able to detect that they were hearing a four-channel performance synthesized from a stereo program source rather than an SQ or QS disc.

From our experience with four-channel receivers (we currently have a number on hand for testing), it is clear that the totally self-contained receiver, able to provide optimum performance with any four-channel format is yet to appear on the market. Those having built-in CD-4 demodulators have simple matrix decoders, with their acknowledged limitations in channel separation. Those with advanced SQ logic systems do not provide comparable performance for SQ or CD-4 records. As of the moment, the Sansui QRX-3500 is the most effective and universal matrix receiver we have seen, but still without CD-4 capability (though of course it could be easily added externally via one of the tape-monitoring circuits). In our judgment, however, the unit's four-channel synthesizing capability with stereo program material goes a long way toward compensating for this lack—especially when one compares the available number of four-channel discs in any format with the existing stocks of two-channel stereo records.

Circle 105 on reader service card

Hartley Speaker Sentry and Robins R47001 Speaker Protector

- When amplifier power ratings rarely exceeded 20 or 30 watts, speaker damage from excessive drive levels was unusual. Today, with 60- to 100-watt amplifiers almost commonplace, and growing numbers of home-music systems equipped with a continuous-power capability of several hundred watts, the danger to many loudspeakers is a very real consideration. Amplifier protection circuits are usually designed to protect the amplifier only, although some of them will disconnect the drive to the speakers in the event of excessive signal amplitude. Otherwise, the audiophile concerned about the well-being of his speakers has had to depend on speaker fuses—when the fuses, or information as to suitable ratings, have been available from the speaker manufacturer.

Two interesting low-price accessories have come to our attention—similar in their operating principles—that are designed to prevent speaker damage without any interruption of the program and without requiring the replacement of a blown fuse. The Robins "Electronic Fuse" speaker protector (Model R47001) and the Hartley "Speaker Sentry" are passive devices (essentially voltage-controlled attenuators) that are inserted either in the tape-monitoring path of an integrated amplifier or receiver, or between the preamplifier output and main amplifier input if this is more convenient. The control voltage is obtained from the amplifier's speaker outputs by an additional pair of leads. Both units have two independent stereo channels. Since neither unit has a tape-monitor switch to replace the one that would be taken up by use of the tape-monitoring path, the second connection path would usually be preferable.

When connected into a stereo system, these devices form a closed-loop limiter, or compressor, whose operating threshold can be set by controls on the device to limit the maximum signal to the speakers to the equivalent of any power from 1 watt to 100 watts. Up to the output level for which the control is set, the protector acts as a simple fixed resistive attenuator with a nominal insertion loss. If the output tries to exceed the threshold, however, the attenuator swiftly reduces the drive to the power amplifier, and the desired level of power is not exceeded.

No specifications or other details are provided with the two units. Since the Robins Electronic Fuse is sealed, we could not examine its circuits, but the Hartley unit apparently has photoresistor/bulb elements to provide the variable attenuation. We assume that the Robins unit employs the same technique.

Although they differ considerably in size, both units are packaged in small plastic boxes. The Robins Electronic Fuse is about 4 x 2 1/4 x 2 1/4 inches, and the Hartley Speaker Sentry is about 6 1/4 x 3 1/4 x 2 1/4 inches. In addition to the signal and speaker connections and the (Continued on page 42)
With Sansui you are right on. Sansui engineering provides a series of four-channel receivers that are enough ahead of their time to put the future in your hands, now. The unique Sansui QS vario matrix gives you richer, fuller four-channel sound from QS (Regular Matrix) as well as SQ (Phase Matrix) sources, plus demodulated CD-4 and discrete tape. With its superior QS synthesizing section, it creates realistic four-channel sound from conventional stereo. Control your future with the QRX-6500, 5500, 3500, or 3000. Hear them at your franchised Sansui dealer.
and 1 second.

Laboratory Measurements. For test purposes, we passed a constant-amplitude audio signal through the attenuators and used a short, high-amplitude tone-burst to simulate an excessive signal peak. The tone-burst input pulse and its effect on the output signal were observed on a dual-channel oscilloscope. The Robins unit attenuator circuit turned on in about 0.5 millisecond compared with a 5-millisecond attack for the Hartley device. Both units had a much longer decay (or release) time, with the Hartley restoring normal level about 0.5 second after the end of the control pulse, and the Robins returning to normal between 0.5 and 1 second.

We operated both units in the tape-monitoring path of a stereo receiver capable of delivering about 40 watts per channel. The insertion loss of the Robins unit was very noticeable, measuring 5.5 dB, even when its power control was set to 100 watts. The Hartley had an insertion loss of only about 2 dB. As might be expected, it became impossible, with either device installed, to overdrive the amplifier as long as the power controls were set to less than 40 watts. The power calibrations of both units were far from precise, but there is actually no need for the user to be concerned with actual power levels. Probably the best way to adjust one of these devices is to play loud music just a little louder than you normally wish to hear it, and then turn down the power controls (from the fully clockwise position) until you can hear the loudest peaks being affected. With this control position, the loudest sounds you hear immediately after adjustment are then the loudest sounds your system will be capable of producing afterward.

At a 1-watt setting, the Robins unit permitted a measured 2.1-watt output and the Hartley an output of 8 watts. Setting the controls to 5 watts increased these figures to 3.5 watts and 9 watts, respectively. With a 10-watt control setting, the outputs were 5 watts and 11.5 watts. The speaker-impedance switch of the Hartley unit had only a 1-dB effect on the output with any control setting. Neither unit presented any significant load to the speaker terminals of the amplifier; the Robins had an impedance of about 5,000 ohms, while the Hartley looked like an open circuit, reading more than 100 megohms. Neither unit had any effect on frequency range or distortion.

Comment. When these limiters are set to a low power, such as 1 watt, the receiver volume control has little or no effect beyond a setting corresponding to a modest listening level; further increases did nothing at all to the sound level. There was no audible distortion, but the characteristic "breathing" of an automatic gain-control system could be heard at times with that low a setting. Although we did not attempt any destructive speaker tests, it was apparent that with either one of these units in use, it would be difficult indeed to damage a speaker. Even a super-power amplifier can be tamed to deliver no more than a whisper with these units, and the very rapid response of the Robins unit in particular would probably protect the most delicate tweeter. However, it should be pointed out that neither of these units can do anything to protect the speakers in certain types of amplifier failure.

Both devices work essentially as claimed, and without objectionable side effects. Still, one must not lose sight of the fact that with one of these gadgets connected, an amplifier's output capability is then determined by the knob on the protector rather than by its own inherent capabilities. To invest a sizable sum in an amplifier capable of delivering perhaps 100 watts or more per channel, and then convert it to a 10- or 20-watt amplifier with the addition of one of these protective devices may not seem entirely logical at first glance. However, there are circumstances—as, for example, when the amplifier is used to drive a pair of remote speakers with less power-handling capability than the main pair—in which these accessories could be quite useful. In such a case, the device would be connected to the remote speaker lines only (assuming the main pair is not being used simultaneously). It would then effectively protect the speakers from overdrive at a time when the listener is likely to be far away from the system's volume control.

If the attack times of the Robins and Hartley protectors were to be reduced to provide protection against long-term signal overdrive but permit brief transients to pass through unhindered, one would still have some protection, plus a reasonably unrestricted dynamic range. On the other hand, the tweeters—usually the most vulnerable part of a speaker system—would be unprotected. Unfortunately, you can't have it both ways.

Circle 106 on reader service card (Hartley)
Circle 107 on reader service card (Robins)

Marantz Model 4140 Four-Channel Amplifier

The Marantz Model 4140 is that company's most powerful and flexible four-channel integrated amplifier. As its full name (Model 4140 Stereo 2-Quad-radial 4 Console Amplifier) indicates, it can be switched from a four-channel to a two-channel mode, combining the front and rear amplifiers on each side to drive only the front pair of speakers with more than a doubling of power-output capability per channel. The Marantz 4140 is rated at 25 watts per channel continuous, all four channels driven, and at 70 watts per channel in the two-channel mode.

The front panel of the 4140, with a brushed gold and black finish matching the style of other Marantz components, is dominated by a rectangular area containing four illuminated meters that indicate the signal levels at the speaker outputs. To the left of the meters, illu-

(Continued on page 44)
When two loudspeakers sound different, at least one of them is wrong. Maybe both.

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 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 electrostats 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 electrostats create tremendous problems with amplifiers, have difficulty playing really loud without distortion and are also somewhat deficient in bass. But—thay'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.

And which is the one to buy.
in the rear of the amplifier are insulated spring-clip speaker connectors and standard phono jacks for all inputs and outputs. The two sets of tape-recorder connections, as well as the aux inputs, are in quadruplicate for four-channel discrete sources: the tuner and phono inputs are for two-channel sources. The preamplifier outputs and main amplifier inputs are brought out to separate jacks joined by external jumpers.

A connector is provided for an optional remote balance/volume control accessory, with a switch to transfer control from the amplifier to the remote unit. One of the two a.c. outlets is switched. A small rear-panel knob changes the power mode from four channels of 25 watts each to two of 70 watts.

The Marantz 4140 is 15% inches wide, 14% inches deep, and 5% inches high; it weighs 33 pounds. Optional accessories include a walnut wooden cabinet ($29.95) and the RC-4 remote balance/volume control accessory ($49.95). A plug-in SQ decoder (Model SQA-1) with front-back logic is $49.95.

**Laboratory Measurements.** With all four channels driven by a 1,000-Hz signal into 8-ohm loads, the output waveforms clipped at 36 watts per channel continuous. Driving only the front channels (in the four-channel mode) increased the maximum power to 42 watts per channel, and all subsequent measurements were made in this mode of operation, as is our usual practice. With 4-ohm loads the maximum output was 54 watts per channel, and into 16 ohms it was 25 watts per channel. In the 2 x 70-watt stereo mode, all speaker terminals must be isolated from the chassis or any common ground. In normal use, this presents no problem, but because of the type of input circuit in our test equipment, we are unable to make power or distortion measurements under such circumstances. However, a check with a calibrated oscilloscope that did have isolated input terminals indicated that the 8-ohm clipping level was at about 97 watts per channel continuous with both channels driven.

In its distortion characteristics the Model 4140 proved itself worthy of the Marantz name. At 1,000 Hz, the harmonic distortion was unmeasurable below several watts output, being submerged in the circuit noise (which itself was very low and quite inaudible). From 8 to 38 watts output, the distortion was under 0.02 per cent (typically 0.015 per cent). The intermodulation (IM) distortion was under 0.1 per cent from 40 watts down to about 0.3 watt, and rose to a low maximum of 0.32 per cent at 1 milliwatt output. At a reference full-power output of 40 watts per channel, the distortion was essentially between 0.02 and 0.03 per cent from 25 to 20,000 Hz, rising to only 0.05 per cent at 20 Hz. The distortion did not change significantly at lower power outputs.

An input of 88 millivolts (aux) or 1.15 millivolts (phono) produced an output of 10 watts with respective signal-to-noise ratios of 76 and 73 dB. The phono-input overload occurred at 115 millivolts—impressively high (and therefore safe) in view of the amplifier’s high gain. The frequency response with all tone controls centered was as flat as that of our test instruments, measuring within 0.25 dB overall from 20 to 20,000 Hz. The bass tone controls had a variable turn-over frequency, shifting from about 100 to 300 Hz as the control was moved from its center position. The treble control affected frequencies above 2,000 Hz. The mid control, whose action was centered at 1,000 Hz, affected a broad range of frequencies spanning most of the audible band. It had a maximum

(Continued on page 46)
Can you spot the Camel Filters smoker?

Even at the Zoo everybody has a gimmick... almost everybody. Find the one who doesn't. 1. No. He's Miles Tugo, underwear salesman pretending he's a jogger. Gimmick: Cigarettes with filters so thick every time he inhales, his ears pop. 2. Meet Livingston I. Presume, gorilla. A latent Homo Sapien, who throws tires at anybody who doesn't believe in Evolution. 3. Nope. He's Jerry Bill, zoo painter. Holds gimmick: A long pole to paint ape's cage (says he's allergic to fur and having his leg pulled off). His Maxi-Long cigarettes easily break in half, too. 4 & 5. No and no. They're Sam and Janet Evening, movie team making a low budget jungle picture: "King Kong Gives Detroit A Hickey." 6. He's Skip Tickel. Was given this address to deliver 12 Chinese dinners. Gimmick: Smokes cigarettes with filters so hollow he talks with an echo. 7. Right. He prefers wildlife to wild gimmicks. Wants no nonsense in his cigarette, either. Camel Filters. Good taste. Honest tobacco. 8. No. It's either the symbol of a high-quality cigarette, or a high-rise sheep.

Camel Filters. They're not for everybody (but they could be for you).


19 mg. "tar," 1.3 mg. nicotine av. per cigarette, FTC Report SEPT.'73.
range of ±5 dB, compared to the ±10 dB or more of the other tone controls.

The loudness compensation boosted both low and high frequencies moderately. The Hi Filter had a 6-dB-per-octave slope, with the −3-dB frequency being 4,000 Hz. The RIAA phono equalization was flat within ±0.5 dB from 500 to 15,000 Hz, and rose slightly at lower frequencies. Overall, it was within ±2 dB from 30 to 15,000 Hz.

**Comment.** As a four-channel integrated amplifier, the Marantz 4140 offers an impressive combination of high power and ultra-low distortion in a very compact (though certainly not lightweight) package. Its array of inputs and outputs should be able to handle almost any conceivable grouping of quadraphonic accessory components, such as matrix or discrete disc demodulators, tape decks, or active equalizers. Of course, it can also be viewed as a very fine high-power stereo amplifier. However, we suspect that most people will rightly consider the 4140 as the control center for a high-quality four-channel system.

Our test unit did not come equipped with any of the plug-in decoder options. We tried the built-in Vari-Matrix circuit both as a decoder for some of our matrixed records and as a rear-channel synthesizer with stereo program sources. In the latter function it did a satisfying job of providing rear-channel sound with some control of the spatial effect through the Dimension control. But with the four-channel matrix records we used (E-V, QS, and SQ), the directionality was not critical. When the Velcro-fastened grille is removed, the most striking visible feature of the Interface:A is the large passive-radiator cone. This is essentially an 11-inch-diameter mass-loaded speaker cone in a conventional frame, but without a voice coil or magnet structure. The passive radiator is actually a precisely designed substitute for a conventional vent or port, which would have to be unreasonably large to achieve the desired 32-Hz response with an enclosure of the Interface:A’s size.

The frequency response of the E-V Interface:A even without its electronic equalizer is certainly respectable. At the bass end there is a gradual rolloff to −3 dB at 60 Hz and −10 dB at 32 Hz. The active equalizer improves this performance even further. Connected in the amplifier’s tape-monitoring path, this unity-gain equalizer has a flat response over most of the audio range. The bass boost begins at 100 Hz, reaching a maximum of +6 dB at 35 Hz, with a sharp cutoff below 30 Hz. A switch on the equalizer provides three high-frequency response curves. One is electrically flat, the second rolls off the response to −6 dB at 20,000 Hz, and the third produces a gentle boost of the highs, starting at 2,000 Hz, to a maximum of +4 dB at 20,000 Hz. The equalizer unit is a.c. operated, measures 8 x 7 x 2 3/4 inches, and has a tape-monitoring switch and connectors to replace those it supplants in the amplifier. Another novel feature of the system is the provision for adding an optional “tweeter saver,” the Model TS-1, which temporarily disconnects the tweeters when the amplifier drive level exceeds a safe value.

Among E-V’s design goals for the Interface:A were an effective 32-Hz lower response limit and uniform total-energy output over the audible range. In addition, the use of a vented enclosure conserves somewhat greater efficiency than is typical of acoustic-suspension systems. Overall, the Interface:A is a noteworthy example of intelligent engineering to

(Continued on page 50)

**Electro-Voice Interface:A Speaker System**

Oscilloscope photos show (from left to right) the fine response of the Interface:A’s tweeter to tone-burst and square wave inputs (both at 5,000 Hz), and the woofer’s response to similar inputs at 1,000 Hz. The input appears above the output in all four of the photographs.

Oscilloscope photos show (from left to right) the fine response of the Interface:A's tweeter to tone-burst and square wave inputs (both at 5,000 Hz), and the woofer's response to similar inputs at 1,000 Hz. The input appears above the output in all four of the photographs.
See son...
there really is a 4-channel 8-track record/playback deck!

Perhaps that surprises you, son. But it's true. You see, there's been a lot of excitement lately about 4-channel stereo. And, like most people, you probably thought that all 4-channel recorders are open-reel.

Well, AKAI will change your mind. You'll discover a whole new world of 4-channel recording when you see—and hear—AKAI's exciting new CR-80D-SS—a remarkably engineered 8-track 4-channel/2-channel compatible record/playback deck.

The CR-80D-SS is compact...easy to operate. And conveniently placed front-panel controls make professional 4-channel discrete recording a breeze.

Which means that you'll be able to make your own 4-channel tapes. And also enjoy the increasing availability of pre-recorded 8-track 4-channel music.

What's more, the CR-80D-SS is equipped with professional features such as Automatic Stop/Continuous Play...Fast Forward...Automatic 4/2-channel Stereo Selector...Illuminated Program Selector...4 VU Meters...front panel 4-channel headphone outputs...and much more.

So don't assume that all 4-channel recorders are alike. They're not, my son.

See your AKAI dealer. He'll give you a new outlook.

From
AKAI
The Innovators
AKAI America, Ltd. / Dept. M
2139 E. Del Amo Blvd., Compton, California 90220 / (213) 537-3680
HERE'S WHAT THEY'RE SAYING ABOUT "THE BEST TURNTABLE IN THE WORLD":

From the critics...

"A silent giant that's built to last — probably forever"
Stereo & Hi Fi Times

"No acoustic feedback even directly in front of loudspeakers"
Hirsch-Houck Laboratories

"Built to last... gives great results"
FM Guide

"The feel of precision machinery... rumble was inaudible"
Hi Fi Stereo Buyers Guide

"Absolutely no speed error at either 33 1/3 or 45 rpm"
High Fidelity Magazine

"The turntable suspension is almost impervious to jarring or bumping"
Audio Magazine

From the public...


Listening is believing—ask your hi fi dealer for a demonstration. Write for your free Empire Guide to Sound Design.
Electro-Voice Interface:A Speaker System...

(Continued from page 46)

achieve stated goals with a minimum of sacrifice in the inevitable "trade-off" of design parameters. The Interface:A is sold as a complete "system" that includes two speaker enclosures and the equalizer. Price: $400.

- Laboratory Measurements. According to the manufacturer, setting the equalizer's high-frequency level switch to maximum provides the most uniform energy output from the system, and we used that setting during our tests. We measured the integrated frequency response from 500 to 20,000 Hz in a normally "live" room. Below 500 Hz, separate measurements were made using a closely spaced microphone for both the driven and passive cones; the two resulting curves were then combined with appropriate allowance for their respective contributions to the total output. When we joined this combined curve (corrected for the equalizer response) to the high-frequency curve, we obtained an excellent overall frequency response of about ±4 dB from 32 to 20,000 Hz. The impressive bass response conformed closely to E-V's published curves, with no evidence of a resonant peak and an overall variation of only ±2 dB from 35 to 450 Hz. The output at the extreme highs (which are most subject to measurement error) rose to about +5 at 15,000 Hz, relative to the 1,000-Hz level. The mid-range response, which was generally smooth, showed two moderate peaks with amplitudes of 4 dB at 600 Hz and 3 dB at 3,000 Hz.

The separate measurements of the driven and passive cones showed (as theory predicts) that the output below 40 Hz is almost entirely from the passive cone. At a 1-watt input, the distortion from the driven cone rose rapidly below 50 Hz. This is of little consequence, since its output (again, as theory predicts) at these frequencies, and hence its contribution to the overall sound, is very much reduced. On the other hand, distortion from the passive cone was unusually low, reaching a maximum of only 6 per cent at 34 Hz and actually decreasing to 4.5 per cent at our lower measurement limit of 30 Hz.

The impedance of the Interface:A reached low points of just over 5 ohms at 30 and 200 Hz, and the highest values were 25 ohms at 75 and 1,500 Hz. The response of the equalizer matched E-V's curves very closely. Aside from a phasing anomaly (the significance of which is not entirely clear), the tone bursts show good transient response, with little ringing or start-up delay. We repeated this test with a two-cycle-long square-wave burst and found that, although the square-wave output was modified considerably, its basic shape was clearly recognizable. Unlike most equalized systems, the E-V Interface:A has relatively high efficiency. Our estimate is that it is 0 dB more efficient than a typical acoustic-suspension system in its price range—a substantial increase. This lessens the power demands made on the power amplifier by about 75 per cent over most of the audible band. At the very low end, the demand on the amplifier was about equal to that of an acoustic-suspension system.

- Comment. In our simulated live-vs.-recorded listening test, the E-V Interface:A had excellent highs with good dispersion—though not quite the equal of the better "omni" and "semi-omni" speakers we have tested. The mid-range had a slightly "forward" sound quality, one that in most cases would probably not be noticed except in a direct A-B live-vs.-recorded comparison. With popular and rock music particularly, the slight mid-range projection would be considered by many to be a positive quality, giving the sound a pleasing "punch." This, of course, is enhanced by the speaker's high efficiency and its power-output capability, which together can produce impressive sound levels without a super-power amplifier.

Watching the cones with the grilles removed and while playing some moderately warped records, we became aware of a major advantage of the equalizer system. Without the equalizer, both bass cones produced large, irregular "overshoots" at these listening levels, probably caused by "normal" record-surface irregularities. Switching in the equalizer completely removed these subsonic signals, even though the lower audio frequencies were considerably enhanced. The E-V approach is obviously far more effective in this respect than a typical rumble filter. In addition, and in contrast to some other equalizer systems that have much higher bass boosts, the modest bass boost required from the E-V equalizer is not likely to place excessive demands on the amplifier.

All in all, the sound of the E-V Interface:A was well balanced and clean, with no hint of its exceptional bass capabilities—unless, of course, the program called for it. This should be an ideal speaker for those striving for convincing home reproduction of the kind of low frequencies heard from a large pipe organ. Rock listeners as well can approach the sort of bass reproduction heard in live concerts, since the E-V Interface:A can deliver a level of undistorted bass far superior to that of any other speaker of its size that we have heard.

Circle 109 on reader service card
The classics from KLH. Four bookshelf loudspeakers 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\textsuperscript{t}). Next, one of the best selling loudspeakers in the country, the Seventeen ($79.95\textsuperscript{t}). Up front, everybody's favorite, the Six ($139.95\textsuperscript{t}). And finally, our most spectacular bookshelf model, the Five ($199.95\textsuperscript{t}). 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\textsuperscript{t}); the Model Fifty-Two ($319.95\textsuperscript{t}); and our newest receiver, the stereophonic/quadraphonic Model Fifty-Four ($525.00\textsuperscript{t}). 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

\textsuperscript{t}Suggested retail prices—slightly higher in the South and West.

CIRCLE NO. 20 ON READER SERVICE CARD
PACHELBEL'S COMET

Underground excitement about a record or a song develops when several radio stations coincidentally program that selection and several hundred (perhaps several thousand) independent minds hear it and, without benefit of any "promotion," get excited about it. Some such thing has been happening recently to a piece that is coming to be known as "Pachelbel's Cannon" or some variant thereof, since that is the name cited to record stores and the Musical Heritage Society by those people who want to buy the recording. In a culture that takes such names as Led Zeppelin, Christopher Milk, and Spooky Tooth as a matter of course, "Pachelbel's Cannon" can hardly be considered out of line. Nevertheless, there is a story here. There are a few LP recordings of the piece, there may even be a single or two, and who knows what other developments are in store for this fragment of ancient music.

The piece is actually the Canon (one "n"), or Kanon, in D Major for three violins and continuo (that is, harpsichord, cello, and bass) by Johann Pachelbel, who was born in Nuremberg in August, 1653, and died in the same city on the sixth or seventh of March, 1706. The musical importance of Pachelbel, according to Grove's Dictionary, "is due to the fact that he was one of the spiritual ancestors of Bach." There is a one-column article on Pachelbel in Grove's, but the Canon in D Major is nowhere mentioned in it.

A canon is a piece for two or more voices (vocal or instrumental) in which the melody played by the first voice is imitated exactly by every other voice, each voice, however, beginning the melody at some specified time after the preceding one. Thus, the round Three Blind Mice is a canon, the second voice beginning the opening line only when the first voice reaches "see how they run," and the third and fourth voices waiting an equal length of time before beginning.

Such canons are frequently constructed to be infinite—that is, each voice, when it has reached the end, starts over again, and you can keep on singing it until you arbitrarily decide to stop.

Pachelbel's canon has the added complexity of a separate bass line, over which the other voices perform the canon proper, and that bass line is continually repeated, thus making the work not only a canon but a passacaglia too. (A passacaglia is a set of variations on a brief theme over a continuously repeated bass.) The melodic line of Pachelbel's canon is really a continuing set of variations on the opening tune. That opening tune (and the bass line that accompanies it) is only eight notes long in an unvaried rhythm, and thus the harmonic progression formed by the upper voices and the bass—for those who know about such things the progression is I-VI-III-IV-I-IV-V—is continually repeated. Such close, regularly repeated progressions can lend a certain hypnotic quality to music and, when the variations over them increase in melodic complexity and tend to rise in pitch, a certain ecstatic quality as well. Pachelbel's canon does just this, and does it splendidly.

What is fascinating to me here is the at least hypothetical coming together of lines of musical tradition and interest that produced the work in the seventeenth century and produced a new appreciation of it in the twentieth. To begin with, it may be a representative work of its time, but it is hardly a typical one. Pachelbel was particularly noted for compositions based on Lutheran chorales, and nothing could be further from that peculiarly lucid and rational form of composition than this very sensual and really rather indeterminate piece.

If those seem like strange adjectives to use about a work that is, in fact, cast in two of the nominally strictest musical forms (textures, more properly), a relatively small amount of aural familiarity with the work will reveal that the melodic line, once past the opening statement, is free to go in almost any direction, bound only by the dictates of the harmonic progression. In my experience of playing the work for others, I have found that it produces an almost irresistible impulse to sing along with it. Yet, the would-be singer has never heard the piece before and therefore cannot know which way the melody is going to go. What is happening, in effect, is that the singer is inspired to improvise over a stated and understood harmonic progression—and, of course, whatever he matches to that progression fits.

It took the increased interest in things harmonic of the Baroque era to produce a situation in which a work of this sort could have been composed; it could never have happened in the Renaissance. And yet there are antecedents: Summ is icumen in, for example, a work of thirteenth-century England, is a four-part canon over a repeated lower part constructed of two intertwining voices. Its resulting harmonic progression is shorter and less interesting than Pachelbel's, but it too produces the feeling of harmonic security that allows for melodicoimprovisation.

The particular ecstatic quality of the Pachelbel also has its precursors—for example, passages in Monteverdi's La grime d'Amante—as well as its subsequent—Vaughan Williams' Fantasia on a Theme by Thomas Tallis and a good deal of the music of Alan Hovhaness, among others.

But why this sudden appreciation today? Well, for one thing, there is a very definite preoccupation now with the idea of ecstaticism in music (together with its quasi-religious connotations). The quality of certain rock music shows that, together with the new interest in such musical figures as Scriabin and the continuing fascination with Indian music (where the ecstaticism received by Western audiences is perhaps not that intended by the Eastern music).

In the second place, the security offered by a short, repeated harmonic progression is a virtual cliché in rock. Whether one puts this down to the psychological needs of the artist or the audience, there is no question that rock music shows that, rock music shows that, rock music shows that, rock music shows that. It took the increased in, erest in things harmonic of the Baroque era to produce a situation in which a work of this sort could have been composed; it could never have happened in the Renaissance. And yet there are antecedents: Summ is icumen in, for example, a work of thirteenth-century England, is a four-part canon over a repeated lower part constructed of two intertwining voices. Its resulting harmonic progression is shorter and less interesting than Pachelbel's, but it too produces the feeling of harmonic security that allows for melodic improvisation.

The particular ecstatic quality of the Pachelbel also has its precursors—for example, passages in Monteverdi's La grime d'Amante—as well as its subsequent—Vaughan Williams' Fantasia on a Theme by Thomas Tallis and a good deal of the music of Alan Hovhaness, among others.

But why this sudden appreciation today? Well, for one thing, there is a very definite preoccupation now with the idea of ecstaticism in music (together with its quasi-religious connotations). The quality of certain rock music shows that, together with the new interest in such musical figures as Scriabin and the continuing fascination with Indian music (where the ecstaticism received by Western audiences is perhaps not that intended by the Eastern music).

In the second place, the security offered by a short, repeated harmonic progression is a virtual cliché in rock. Whether one puts this down to the psychological needs of the artist or the audience, there is no question that rock music shows that, rock music shows that, rock music shows that. It took the increased in, erest in things harmonic of the Baroque era to produce a situation in which a work of this sort could have been composed; it could never have happened in the Renaissance. And yet there are antecedents: Summ is icumen in, for example, a work of thirteenth-century England, is a four-part canon over a repeated lower part constructed of two intertwining voices. Its resulting harmonic progression is shorter and less interesting than Pachelbel's, but it too produces the feeling of harmonic security that allows for melodic improvisation.

The particular ecstatic quality of the Pachelbel also has its precursors—for example, passages in Monteverdi's La grime d'Amante—as well as its subsequent—Vaughan Williams' Fantasia on a Theme by Thomas Tallis and a good deal of the music of Alan Hovhaness, among others.
That difference is in Transient Response... and more! Onkyo engineers, through exhaustive research, determined that a receiver's Pre & Main Amplifier sections are of major importance to overall sound quality. They found that most fine receivers will "pass" a sine wave efficiently. But, it is in Transient Response — the ability to handle complex waveforms (musical sound signals) where others fall short of Onkyo's high standards. Onkyo achieves this ideal Transient Response through the use of its superbly engineered pre-amplifier circuits and direct coupled/differential amplifier circuitry. This combination further assures minimal Total Harmonic Distortion for dramatically realistic sound reproduction.

But, what about performance in the "phono" mode? And in FM reception? How does the TX-666 measure up? Here again the Onkyo difference is apparent. An unusually large 200mV (at 1kHz) Phono Overload capacity is built into the Pre-amplifier circuit. This provides the TX-666 with an extraordinary capacity to handle the extremely pulsive, highly dynamic input signals from today's fine quality phono cartridges & discs... for clean, clear, lifelike response.

As for FM reception, we've incorporated a highly sensitive Front End and an advanced, Phase Linear IF Stage design to achieve enviable FM sound quality over an extremely broad bandwidth... in extra-strong or in weak signal zones. Dial calibration is accurate, precise... and there is no drift. Capture Ratio and Selectivity are decidedly superior. FM Muting is "pop-less".

For power, Onkyo employs the more definitive RMS ratings — with the TX-666 delivering 53W (per chan.) RMS at 1kHz, both chan's. driven. This power capability is guarded by a superbly responsive, detection type (ASO) electronic circuit for output power transistors; a sophisticated Transient Killer Circuit; fused speaker protection and automatic, shut-off thermal protection.

The experts more than praise the TX-666. Hirsch-Houck (Stereo Review, March '73) calls it "A high performance receiver". High Fidelity (May '73) says it "Behaves well above average". Radio Electronics (Feb. '73) is "Highly impressed". And FM Guide (Jan. '73) calls it a "Winner"!

Prove it to yourself. Listen to the TX-666 and all the other outstanding Onkyo audio products — tuners, amplifiers, receivers, speaker systems and speaker components in every price range. You'll discover why Onkyo is audio with an important difference.

---

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

CIRCLE NO. 35 ON READER SERVICE CARD
THE SIMELS REPORT
By STEVE SIMELS

GETTING THERE WAS ALL THE FUN

SOMEONE, I’m not sure who (and if any of our literate readers would care to enlighten me, I’d be most grateful), once said that it’s the easiest thing in the world to start a new religion—all you have to do is be crucified and rise on the third day. “Easy” or no, there have been throughout history a number of aspiring divinities who have not taken this simple advice to heart, and it appears to have been similarly wasted on Teenage America’s latest Heavyweight Spiritual Contender, the sixteen-year-old self-billed Perfect Master, Guru Maharaj Ji. In the long run, I think his credibility is going to suffer for it. As a matter of fact, I caught his act recently and frankly I can’t see him as serious competition for either Billy Graham or David Bowie, the two performers he most closely resembles. However, the circumstances attendant on this confrontation between the reputed Wisdom of the East and the sensorium of this reporter deserve some explanation, at least insofar as this is a music magazine.

For several weeks during last fall, New York City (and, I assume, other parts of the country) was plastered with posters featuring the guru’s smiling puss and an invitation to attend “Millennium ’73,” a three-day extravaganza at the Houston Astrodome at which he promised to announce solutions for all the world’s problems. (Rennie Davis, the former radical who had gotten religion and become the Festival’s organizer, had earlier declared it would be “the most significant event in the history of mankind.”) Call me a sucker if you will, but with a hype like that I just knew I had to attend. My own particular problem (namely, how to justify a Popular Music Editor’s interest in such spiritual matters to my more pragmatic associates at STEREO REVIEW) was soon solved, and I took it as a Good Omen. It seemed that Eric Mercury, Stax Records’ latest entry in the “Let’s Fill the Void Left by the Passing of Otis Redding” sweepstakes, had been invited to perform during the Millennium’s first day. The guru’s people were predicting a massive turnout of disciples (devotees?) from all over the world, and, although Eric himself was not a follower (apparently the only reason he was approached in the first place was his recording of a highly secular soul number entitled Love Is Taking Over), the Stax organization was obviously receptive to the idea of presenting him to the hordes expected to pack the Astrodome to overflowing. So, being generally curious about outbreaks of mass psychosis, I allowed myself to be the guest of Stax, and, along with some other journalistic types, made the trek down to Houston.

My immediate impression upon arriving was that the seemingly unlikely alliance between Stax’s Memphis Funk and the guru’s Himalayan Homilies was not as farfetched as I had anticipated; it turned out that both the Stax executives and the Holy Stripling were inordinately fond of expensive limousines (the guru’s was a spiffy green Mercedes, which I encountered in the hotel parking lot). But a vague air of uneasiness surrounded the whole undertaking: the record company people were promoting an artist, trying to sell records, while the guru-noids were jabbering about saving the world and offering “a thousand years of peace for those who want it.” Strange bedfellows, to say the least.

Nonetheless, after a breakfast press conference at which both Rennie and Eric (a very likable and engaging young fellow, it turned out) hyped their respective things, we were off to the Astrodome to see at first hand What It Was All About. Oddly, it was a total bust; the biggest excitement (for me, anyway) was provided by occasional harassment by the assorted competing sects (Krishnists, fundamentalists, etc.) who were picketing at the gate. After all the publicity, the multitudes inconsiderately neglected to appear (official crowd estimates ranged from ten to twenty thousand, which struck me as excessive), and in any event those that did couldn’t have cared less about the entertainment provided for them; the kids I talked to were full of excited rumors about scheduled UFO landings and the like, and, understandably, traditional show biz must have struck them as pretty irrelevant to the grander scheme of things. So poor Eric, backed by the full-scale Stax production—big band and gospel singers—was left on stage to parade his wares before a crowd at best only vaguely aware of his presence. It was a shame, actually—Eric isn’t Otis, but he’s quite good; he has an excellent voice and lots of energy. But he is not Divine, and was therefore beneath the audience’s notice (perhaps they should have booked Bette Midler). At any rate, I’d probably enjoy hearing him again under more reasonable conditions.

For those of you who may be wondering, I did indeed stay for the guru’s opening appearance, and, although the faithful responded to him with worshipful enthusiasm, I didn’t find him all that hot. For starters, he couldn’t dance. Even worse, his material was lousy; he retold the same parable at least four times with different characters (owl and goose, fox and crow, etc.), and he was given to saying things like “I don’t have to tell you...you know.” Somehow, one expects more from a Living God.

Now that I’ve gotten all that out of my system, and just by way of a snappy closing, I would like to mention here the runners-up that I had to cut (due to space limitations) from my last month’s 1973 Ten Best list. Normally, I wouldn’t indulge in this sort of nit-picking, but I can’t help feeling that the list as published may in some ways have misrepresented my thinking. So, briefly, a tip of the Hatlo Hat and a Better Luck Next Year to: the Hollies’ “Romany,” the debut of the New York Dolls, “Roger McGuinn,” Procol Harum’s “Grand Hotel,” Lou Reed’s “Berlin,” The Band’s “Moondog Matinee,” Mike Oldfield’s “Tubular Bells,” Matthew Fisher’s “Journey’s End,” “Ringo,” and the soundtrack of The Harder They Come.

As for singles, well, I had lots of favorites, among them the Raspberries’ Tonight, Wings’ The Mess (the live B-side of My Love, which proved conclusively that Paul McCartney still knows how to rock) and I Lie Around, Wizzard’s Carsberg Special, the Kinks’ One of the Survivors, and, best of all, Stealers Wheel’s Everyone’s Agreed That Everything Will Turn Out Fine. Finally, Turkey of the Year was a toss between David Bowie’s version of Let’s Spend the Night Together (the real rock-and-roll suicide) and the entire “Living in the Material World” album by the late George Harrison. Thank you and good night.
For the world of STEREO—
XV-15/1200E

Designed for use with all stereo and four-channel derived compatible systems.

"PRECISION" is the one word that best characterizes the extraordinary quality of the new Pickering XV-15/1200E cartridge. We sincerely feel that the 1200E is the furthest advance achievable today—and perhaps in the foreseeable future—in stereo cartridge design and performance. Its exceptional ability to pick up all the material recorded at the lightest possible tracking forces make it totally unique and superior.

And all of Pickering's exhaustive testing shows that the 1200E is superior in the flatness of its frequency response and channel separation in comparison to competitive cartridges.

**SPECIFICATIONS:**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency Response</td>
<td>10 Hz to 30 kHz</td>
</tr>
<tr>
<td>Channel Separation, Nominal</td>
<td>&gt; 35 dB</td>
</tr>
<tr>
<td>Tracking Force</td>
<td>+1/8 gram, -1/8 gram</td>
</tr>
<tr>
<td>Nominal Output</td>
<td>4.4 mV</td>
</tr>
<tr>
<td>Stylus Tip</td>
<td>0.0002&quot; x 0.0007&quot;</td>
</tr>
</tbody>
</table>

For the world of DISCRETE 4-CHANNEL—
UV-15/2400-Q

Designed and engineered specifically for playback of discrete recordings.

The discrete 4-channel system requires a completely new cartridge that could not only faithfully reproduce the 20 Hz to 20 kHz AM signals, but also the 30 kHz FM modulated signals. The result is the Pickering UV-15/2400-Q. It consists of a completely redesigned cartridge and a new high performance stylus assembly, the Quadrahedral, specially developed for this application. The UV-15/2400-Q performs in a superior manner by every test, and is capable of satisfying all technical and aesthetic requirements for playback of both discrete and stereo disks. Moreover, its stylus is designed to reduce record wear.

**SPECIFICATIONS:**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency Response</td>
<td>10-50,000 Hz</td>
</tr>
<tr>
<td>Channel Separation</td>
<td>&gt; 35 dB</td>
</tr>
<tr>
<td>Tracking Force</td>
<td>1.3 grams</td>
</tr>
<tr>
<td>Output</td>
<td>3.6 mV ± 2 dB</td>
</tr>
<tr>
<td>Stylus</td>
<td>Quadrahedral</td>
</tr>
</tbody>
</table>

Notes: 1. Recommended by manufacturer for optimum performance. 2. When the cartridge is terminated in the recommended load of 100K ohms and 100 PF. 3. Output with reference to 3.5 cm/sec record velocity.

The right Pickering cartridge for your equipment is the best cartridge money can buy.

For further information write Pickering & Co., Inc., Dept. V, 101 Sunnyside Boulevard, Plainview, New York 11803

CIRCLE NO. 41 ON READER SERVICE CARD
In London: 

SERGIO MENDES 
AND BRASIL '77

By Henry Pleasants

Bandleader-composer Sergio Mendes became a big name in the music world in 1966 with a group called Brasil '66. The group with which he toured England a short while back is called Brasil '77. An obvious first question: "Why '77?"

"Because," he replies, "it seems to give us time to move forward, to experiment, to improve, to try out new sounds, new techniques, new combinations, new colors, new rhythms. I don't want what we are doing to be tied to a date in the present, let alone a date in the past. Brasil '77 follows nicely on Brasil '66, but more importantly, it gives us musical elbow room."

Mendes, at the moment of speaking, had little elbow room of any other kind. He had just been moved from one room to another at Claridge's. Indeed, he was still being moved, and the setting, with two foot lockers waiting to be opened, ten assorted pieces of hand luggage piled on the floor, and bellboys arriving at roughly five-minute intervals with racks of suits, shirts, costumes, and other items of stage attire, suggested an episode in a George Kaufman comedy. But Mendes, when he talks about his music, is oblivious to all else.

"Just as I don't want to be pegged to any certain date," he told me, "so also I don't want to be pegged to any one geographical area or any one musical idiom or style. I'm a Brazilian. I love Brazilian music, and I'll always play it. I'll keep Brazil in the name of my group. But I love classical music, too, especially Debussy and Ravel, and even Webern and some of the modern electronic composers. And I love jazz."

"When I was a boy studying classical piano at the conservatory in Rio de Janeiro, I was fascinated by what the young American jazz pianists were playing at that time. My early idols and models were Bud Powell, Horace Silver, and Dave Brubeck. I have kept up my association with jazz and jazz musicians, and I play with them whenever and wherever I can."

"From that jazz experience I have learned to appreciate and treasure what North and South American styles have in common, although what distinguishes them from one another is treasurable, too. The important thing to recognize is that all this music is Afro-American, or Afro-European.

"The blacks came to the Americas from many different parts of Africa, and there were—and still are—as many different kinds of African music as there are different kinds of North and South American music—probably more, since the differences in Africa are tribal as well as regional.

"And, having arrived in the Americas, they were exposed to a variety of European cultures and to different kinds of European music—British, northern European, and Protestant in North America; Spanish, Portuguese, and Catholic in South America. The resulting musical blends varied accordingly."

"And, having arrived in the Americas, they were exposed to a variety of European cultures and to different kinds of European music—British, northern European, and Protestant in North America; Spanish, Portuguese, and Catholic in South America. The resulting musical blends varied accordingly."

The composition and repertoire of Brasil '77 reflects the wide range of Sergio Mendes' experience and enthusiasm. An essentially Latin rhythm is provided by two sets of congas and bongos and a vast assortment of rattles, triangles, bells, gongs, etc. But there is also, appropriately between the other two, another drum set of distinctly North American appearance and function.

There are bass guitar and lead guitar, but no horns, their place in sustaining a melody line being taken by two girl singers, with nicely matched voices, who sing both Brazilian and North American popular songs and give a simple, easily followed continuity to the complex polyrhythms being churned up behind them.

And there is Sergio Mendes himself, of course, right in the middle, accompanying, commenting, and controlling on both acoustic and electric piano, taking solo choruses now and then, usually on the electric piano, that reflect his early infatuation with jazzmen Powell, Silver, and Brubeck.

It is not, except for a fifteen-minute carnival suite, "Brazilian" music, and it is not jazz in any conventional sense, but rather a blend compounded from elements of both as they have met in the intensely musical sensibilities of Sergio Mendes. Call it Mendes music.

At his Royal Festival Hall concert he asked if there were any Brazilians in the audience, and was delighted to be assured that there were many. But then he asked the audience more precisely about the key elements of both as they have met in the intensely musical sensibilities of Sergio Mendes. Call it Mendes music.

At his Royal Festival Hall concert he asked if there were any Brazilians in the house, and was delighted to be assured that there were many. But then he asked the audience more precisely about the key elements of both as they have met in the intensely musical sensibilities of Sergio Mendes. Call it Mendes music.
The enjoyment of 4-channel sound is now within almost everyone's 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 IHF, 15 watts continuous, per channel into 8 ohms. The AR-200 is designed for maximum versatility with individual level controls for precise adjustment of each channel, a master gain control, and built-in SO circuitry so you can reproduce matrixed 4-channel material as well as discrete 4-channel, stereo or even mono through four separate amps. A versatile rear panel phone socket arrangement provides inputs for Phono, Tape, Auxiliary - plus outputs for "Tape Out". Front-panel push-button switches give you fingertip control of on-off, speakers, and all modes of operation. Two front panel headphone jacks are provided for 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 on the tuner produces a TUNER SECTION - FM (mono) - Frequency response: ±1 dB, 20 to 15,000 Hz. Sensitivity: 2 µV. Selectivity: 60 db. Image rejection: -50 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: ≥ 60 Hz. Frequency 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. Frequency response: ≥ 20 Hz to 15,000 Hz. Harmonic distortion: ≤ 0.75% @ 1000 Hz with 100% modulation. Intermodulation distortion: ≤ 0.25% with 15 W output. Damping factor: Greater than 30. Input sensitivity: Phono: 2.2 mV. Taper, Aux, Tape: 0.25 mV. Input overload: Phono: 35 mV to greater than 5 V. Tuner, Aux, Tape: Greater than 3.0 V. Hum and noise: Phono: -60 dB. Tuner, Aux, Tape: -70 dB. Tape output: 0.4 V out with 0.2 V in. The Heathkit AR-2000 - one of the most outstanding quality/price values on the 4-channel market.

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


At Pilot, our best four-channel receiver is our best stereo receiver.

It takes a lot more than adding two plus two to produce an outstanding four-channel receiver. Technological change must be anticipated, as well as the needs — present and future — of those who will use the equipment. Unfortunately, not all companies recognize this.

Fortunately, Pilot does.

We knew from the beginning that many of you would not be able to make the switch to four-channel all at once. That's why the Pilot 366 four-channel receiver (30/30/30/30 Watts RMS into 8 ohms) incorporates an ingenious "double power" circuit that permits you right off to enjoy the full power of this receiver in stereo (60/60 Watts RMS into 8 ohms).

Not only does the 366 provide advanced SQ circuitry, but it can also reproduce any other matrix system currently in use. Plus it will extract hidden ambience information from conventional stereo material.

Naturally, the 366 is fully adaptable to any discrete system.

We didn't stop there, however, in considering the manifold uses of this receiver. An ultra-sensitive FM tuner section (1.8µV, IHF) has a special detector output to accommodate proposed FM four-channel transmissions.

Finally, we saw to it that setting up in four-channel would be a simple operation. The 366 provides a special balancing signal, we call it Pilotone®, which makes channel balancing a virtually foolproof procedure.

No matter how you use it, the very things that make the Pilot 366 our best four-channel receiver also make it our best stereo receiver. And yours too.

For complete information and the name of your nearest Pilot dealer write: Pilot, 66 Field Point Road, Greenwich, Conn. 06830.

The Pilot 366 Four-Channel Receiver
Mozart's Clarinet Concerto (K.622)

The clarinet as we know the instrument today seems to have evolved during the early years of the eighteenth century as a single-reed woodwind. The instruments referred to in scores of that time as “chalumeaux” may have been early versions of the clarinet, and the term “chalumeau” is still used today to describe the lowest register of the clarinet. The first certain use of the clarinet in a serious way appears to have been in a Mass composed in 1720 by the Belgian composer Jean Adam Joseph Faber. There were further tentative uses of the instrument by largely obscure composers during the next several decades. Something of a stir was created in London in the winter of 1763 when clarinetists were summoned to take part in the premiere of the opera Orione by Johann Christian Bach (the “London Bach”). But Charles Sanford Terry, in his biography of J. C. Bach, says that the use of the instrument in Orione was really neither adventurous nor remarkable.

It remained for Mozart to seize upon the expressive possibilities offered by the clarinet, transcending, in his sympathetic usage of the instrument, everything done by his contemporaries and immediate predecessors. First in Mannheim, and then subsequently in Paris, Munich, and Vienna, Mozart became well acquainted with the instrument—though he had first employed it as early as 1771 (when he was fifteen!) in his Divertimento in E-flat, K. 113. The final flowering of Mozart’s writing for the clarinet was prompted by the presence, in Vienna, of two extraordinary virtuosos of the instrument, brothers named Stadler, who were members of the Emperor’s Harmonie of eight wind players. The older of the two, Anton, became a close friend of Mozart’s; they were fellow Masons, and Anton was a frequent guest at the Mozarts’ table. It was for Anton Stadler that Mozart composed his greatest music for the clarinet, including the Quintet of 1789 (K. 581), the obligato parts in the opera La Clemenza di Tito of 1791 (K. 621), and the Clarinet Concerto of the same year (K. 622).

The Clarinet Concerto was Mozart’s last concerted work for any instrument; he completed it on September 28, 1791, about two months before his death. The original manuscript of the work is lost, but there is strong evidence to indicate that Mozart wrote it with the bassoon horn—a lower-voiced clarinet—as the solo instrument. In the ten years intervening between the composition and publication (1801), certain passages seem to have been raised an octave for practical purposes related to the still evolving instrument.

Albert Einstein, in his biography of Mozart, wrote of the Clarinet Concerto:

“The greatness and the transcendent beauty of this work are such as its high Köchel number would lead us to expect.... The first movement is from beginning to end in Mozart’s last style, informed throughout by the closest relation between the soloist and the orchestra, and by the utmost possible vitality in the orchestral portion itself.... Significantly, in this work the basses are sometimes separated from the cellos; in the Adagio, a counterpart to the Larghetto of the Clarinet Quintet, there are passages of transparent sonority in which the contrabass is silent. And how all the registers of the solo instrument are exploited, yet without any exhibition of virtuosity! There is no opportunity for free cadenzas. One need only compare this work with similar compositions by another great lover of the clarinet and master in writing for it, Carl Maria von Weber.... to see the difference between the supreme effectiveness of simplicity and more virtuoso exhibition.”

The first great recording of the Clarinet Concerto was made in London in the late 1930’s by Reginald Kell, the distinguished British clarinetist. About a decade later Kell re-recorded his fluent and polished performance of the score, this time in Symphony Hall, Boston, with the conductorless Zimbler Sinfonietta for the newly emerging long-playing record format. This Kell re-recording set the modern standard of performance where this score is concerned, and all subsequent recordings owe it a debt.

There are currently nearly a dozen different performances of the Clarinet Concerto listed in the Schawm Record and Tape Guide. Several of them have special qualities of excellence: Gervase De Peyer’s (London CS 6178; tape L 80053) is a good-humored, beautifully articulated virtuoso approach with rich sonics; Karl Leister’s first recording of the score (with Rafael Kubelik conducting, Deutsche Grammophon 136550) is a perky, exuberant performance (unlike his later, soporific on Angel S-3783); and Robert Marcellus’ version, with George Szell and the Cleveland Orchestra providing a matchlessly alert instrumental framework (Columbia MS 6968), has a special dignity and eloquence that many listeners find unequaled.

My own favorite of all the available recordings, however, is the one by Jack Brymer, with Neville Marriner conducting the Academy of St. Martin-in-the-Fields (Philips SAL 6500378). For more than a quarter of a century Brymer has been one of the succession of London’s great orchestras, beginning with Sir Thomas Beecham’s Royal Philharmonic in the later 1940’s, then the BBC Symphony Orchestra, and currently (since 1972) the London Symphony Orchestra. Indeed, his collaboration with Marriner marks the third time he has recorded Mozart’s Clarinet Concerto: his first version, with Beecham conducting, is still available as a low-price Seraphim reissue (S 60193); his second recording, with Colin Davis conducting the London Symphony, was apparently never released in this country. Both performances have a liquid grace and charm, but the new one adds the qualities of greater bite and intensity. This is particularly so of the slow movement, where Brymer and Marriner make rather more of the troubled waters that seethe beneath the surface of the music. Throughout, Brymer produces a tone of uncommon clarity and purity, and he and the ensemble are given beautifully balanced sound by the Philips recording engineers. I must also mention the easygoing manner and relaxed tempo applied by Brymer and Marriner to the last movement, characteristics which give it an additional feeling of spontaneity.

The disc also includes an equally fine performance of Mozart’s Bassoon Concerto (with Michael Chapman as soloist), and a very good one of Mozart’s Andante for Flute (with Claude Monteux as soloist).


MARCH 1974

59
At the time these notes appear in print, quite a number of American concertgoers in different cities are about to undergo—or will already have undergone—their most concentrated encounter thus far with the music of a man I believe to be the most important English composer writing today. I know that such a claim made on behalf of Michael Tippett runs the risk of appearing dangerously hyperbolic to American readers more familiar with such bigger “names” as Benjamin Britten and William Walton. But in making it I am worried less by the risk of exaggeration than by the likelihood of understatement, for Michael Tippett is for me one of the supreme composers of any time or place, and I fancy that a good many of those who come upon his Third Symphony and his Piano Concerto at the Chicago Symphony, or his Concerto for Double String Orchestra at the New York Philharmonic this month, or those who saw his third opera, The Knot Garden, produced at Northwestern University February 22 will not only agree with me but may find themselves wondering where he has been all their lives.

These are not the first opportunities Tippett has had to place his imprint on American musical life. Apart from the slowly growing availability of his music on disc and the occasional live performance of such works as the Concerto for Double String Orchestra, the Second String Quartet, and the oratorio A Child of Our Time, and the oratorio A Child of Our Time, he enjoyed something of a personal triumph as composer-conductor as long ago as April 1968, when he filled in on short notice for Igor Stravinsky, conducting the St. Louis Symphony in his own 1963 Concerto for Orchestra as well as works by Purcell, Holst, and Ives and a magnificent performance of Elgar’s “Enigma” Variations as well.

At that time Tippett was sixty-three. Neither in the United States, where the ripples from that evening in St. Louis had little effect, nor in England, where Britten is still widely accepted as the top composer ("If Britten sneezes, they record it," one compatriot has ruefully remarked), was his reputation particularly high outside a small but dedicated circle of admirers. It is only in the last five or six years that the balance of reputation has tipped radically, and the number of British listeners to whose minds the name Tippett comes first when they think of their country’s musical resources has multiplied.

The advocacy of conductor Colin Davis has had something to do with the change. Davis had already recorded the Second Symphony and the Concerto for Orchestra when, in 1968, he led a revival of Tippett’s first opera, The Midsummer Marriage, at Covent Garden. Then, shortly after taking over as music director at the Royal Opera House, he mounted Midsummer Marriage again (and recorded it), and in December 1970 he conducted the premiere of The Knot Garden, a new recording of which I review on page 79.

The Knot Garden was really the fulcrum of Tippett’s elevation to a new plane of recognition, though it was an elevation that had, regrettably, just a touch of succès de scandale about it. I did not see the production, but it was evident from the reviews that at least part of the opera’s appeal derived from its quite obvious elements of titillating novelty: the unaccustomed presence of a black and white homosexual pair on the operatic stage and of an electric guitar and jazz combo in the orchestra pit. But though these elements may have helped Tippett’s new opera to make an impact, they are so carefully integrated into the fabric of the work that any accusation of cheap opportunism would be inappropriate. What can justly be said—and perhaps it is just a positive way of rephrasing that negative word “opportunism”—is that Knot Garden is a part of Tippett’s deliberate aim to widen his range and, by simplifying his musical style, to reach a larger audience, in any case, the move had its roots much earlier in the composer’s output.

The bare lines and stark scoring of the opera King Priam (1961), for example, had come with the disconcerting effect of a sudden cold shower after
the apogee of polyphonic complexity and sensual richness of sound attained in *Midsummer Marriage* (completed 1952) and its cognate work, the Piano Concerto of 1953-1955. Similarly, the Second Symphony of 1956-1957, though still complex enough, represented a noticeable pruning of musical thought in comparison with the First Symphony of a dozen years earlier. It is in such subsequent works as the Concerto for Orchestra and *The Knot Garden*, however, that the drive toward simplicity has been fused most fruitfully with the complex subtleties of Tippett’s earlier style, producing a line of development full of exciting possibilities as the composer approaches his seventieth birthday.

Complexity nevertheless remains central both to Tippett’s mind and to his music. Even after the change of direction initiated by *King Priam*, the premiere of the ambitious choral and orchestral *Vision of Saint Augustine* in 1966 showed that Tippett was still liable to be driven by the workings of an extraordinarily intricate musical imagination to expression of a formidable density—in this case, for all its evident power, one that I have not yet been able to penetrate.

As early as the Concerto for Double String Orchestra, completed in 1939 and probably Tippett’s most popular work still, the vivid modern recreation of the flexible rhythmic methods of the Elizabethan and Jacobean madrigalists (a resource fundamental to Tippett’s style) had demonstrated this tendency toward the complex in one technical sphere. The extravagantly proliferating arabesques in the piano part of the song cycle *The Heart’s Assurance* (1950-1951), which shade the meaning of the words with polychromatic washes of thirty-second notes, show it in another form.

Beyond musical technique, or rather beneath it, this propensity for the many-sided is characteristic of Tippett’s world-view. And just here is to be found the nub of the difference between Tippett and Britten, a difference far more wide-ranging than that of their disparate attitudes to (and uses of) tonality, though these attitudes and uses may indeed be said to exemplify the basic difference on one relatively obvious level. Britten’s treatment of tonality is often fresh and striking, but rarely subtle or profound: the same is true, I think, of his perception. Tippett, however, tackles far more taxing issues on both levels. Unusual among contemporary composers in adhering to tonality even to the point of continuing to employ key signatures, he is still more unusual in being able to invest traditional chord formations with all the mystery of previously unimagined contextual twists. And in his relation to the world, to humanity, and to whatever may be his gods, Tippett seems to take a broader and deeper range of experience into account than Britten does.

Compare, for example, Britten’s facile evocation of the subject of war in the so-easily-slipped-in bit of muted military fanfare that shades “Out on the lawn I lie in bed” in his *Spring Symphony*, or the more portentous military figurations that pervade the *War Requiem*, with Tippett’s handling of similar issues in *A Child of Our Time*, and you will see the difference between a gift for apt illustration and a much more interior one for telling illumination. A similar distinction may be drawn between the black-and-white moral world of Britten’s *Billy Budd* (again, “illustrated” with fatal ease by a major-minor juxtaposition far too insubstantial to bear the weight of Melville’s ethical implications) and the much more multifarious and genuinely, messily human interrelationships of the people in Tippett’s operas. It is hard to imagine Britten’s characters ever acting out of character; Tippett’s (like E. M. Forster’s) often do, and the result is not loss of focus and force but rather a richer and more profound characterization.

The operas, and particularly *The Midsummer Marriage* and *The Knot Garden*, offer the clearest demonstrations in Tippett’s output of the way his multifaceted mind works. His subject, in these two works especially, is man’s quest for wholeness, and perhaps the most striking aspect of his treatment of this theme is its wholeness: confronting the Cartesian dichotomy of flesh/spirit, Tippett is, I think, one of the few contemporary artists subtle, far-sighted, and intelligent enough to perceive that the dichotomy is an illusion. Here, as in the more readily schematized good/evil opposition of *A Child of
Our Time, he faces the contradictions and shows us that they are not contradictions but elements of an interdependent whole. For once, we are presented not with an “either/or” situation, but with an insight that truly strives to reconcile.

It is this wholeness of view, together with the capacity for profound joy through which it is expressed, that evokes an exhilaration of response rare in an age of neurotic art. André Gide, when asked once to name France’s greatest poet, replied, “Victor Hugo, hélas.” If, like me, you have ever had a similar feeling about Wozzeck among twentieth-century operas, a feeling that it is certainly one of the masterpieces, coupled with a regret that so neurasthenic, tortured, and ultimately life-denying a work should have to be so regarded, then you may well, like me, find the life-affirmation of The Midsummer Marriage an extraordinarily reassuring and even bracing experience.

The work depicts the progress of two young couples toward self-knowledge. Tippett’s libretto invests characters and action with a wealth of mythological and anthropological background, and of allusion to other works of art as well. Mozart’s Die Zauberflöte is clearly to be felt as the central “parent” work. Tippett’s first and more arduously self-questioning couple, Mark and Jenifer, correspond to Tamino and Pamina. The relatively easy-going Jack and Bella, like Papageno and Papagena, act as mundane foils to the other pair’s spiritual heroism. In place of Sarastro, we have Sosostris, “famous clairvoyante,” purloined by Tippett from Eliot’s The Waste Land. Myth—Greek, Hindu, and Celtic—and Jungian psychology are both liberally applied in the shaping of the piece.

This web of varied references, along with what was alleged to be the “obscurity” of the libretto, provoked many critical strictures when the opera had its first performance in 1955. Certainly, if it is bad for a creative artist to be conscious of his universalist aims and to plan his mythological references deliberately, some of the criticism was justified. But, for myself, I never saw the difficulty. I was bowled over by music that exhaled a lyrical exuberance, an intensity of celebration unsurpassed in our century. As for the action, it seemed to me not only perfectly lucid in itself, but perfectly realized through the music. The success the work has had in revival (and in the excellent Philips recording) suggests that more and more people are beginning to feel that way, and it can surely not be much longer before some of the major American opera companies essay productions of their own.

The Knot Garden is a less fully realized work of musical theater than Marriage. Concerned with themes of at least equal complexity, it endeavors to resolve them a little too hastily for complete conviction, and its musical invention, though still prodigious by the standards of any other living composer, doesn’t quite match—doesn’t, indeed, aim to match—that of Midsummer Marriage. But it is still an enormously valuable piece. Starting with people and situations that border much more closely and explicitly on the abnormal and the neurotic than those of the Marriage, it still reaches a conclusion of robust mental and emotional health. Though the process of growth toward self-awareness is here carried through less coherently, it may be that the attainment of equilibrium is even more remarkable than in the earlier work, given the still wider range of human material subsumed in the first place.

King Priam is a work that points in quite other directions, not only in the move toward an austerity of texture exceptional for Tippett, but also in its relatively faithful interpretation of one pre-existing story. It is a hard work to come to grips with, but upon closer acquaintance its very bareness comes to be understood as an ideal medium for the stripped-down projection of ritual emotion. Expressively, if not in musical terms, Tippett here comes closest to Stravinsky, who achieved a comparable effect through different means in the hard-edged ostinatos of his Oedipus Rex. This hieratic view of ritual may appear ascetic, but in the hands of a master it can be the reverse: by removing the flesh through which we usually perceive emotion, it lays open to us the bones of feeling that lie below. King Priam may eschew sensual allure, but there is no lack of human expression in it.

It is to be hoped that Philips, which has already
recorded the other two operas and is shortly to release the Third Symphony, will soon give us Priam as well. Productions of these works do not exactly lie thick upon the ground, and, with Tippett more than any other composer I know, appreciation of the music depends on actually hearing it. Even a work as lucidly laid out as A Child of Our Time yields comparatively little to inspection of the printed page. It is Tippett's unerring aural imagination, reaching our understanding through the corporeal ear, that turns what looks banal on paper into a kind of magic.

It is for much the same reason that formal analysis of Tippett's musical technique tends to be fairly unproductive. But there are a few telltale fingerprints, impressed on all his work, that may be usefully pointed out. Central, and strongly in contrast to the metaphysical cast of the composer's work, is an empiricism that, along with the rhythmic debt to the madrigalists already mentioned, is his most fundamentally English characteristic. Thus, a delight in rhythmic play and experiment is a constant element. Yet, whereas another great rhythmic experimenter, Messiaen, resorts to systems and even builds up new super-systems of his own based sometimes on Indian metric theory, sometimes on strict serialism, Tippett, even at his most elaborate, never subordinates the free flow of his invention to any preconceived schema. The superimposed rhythmic modes of Messiaen's Turangalila Symphony, for example, and the bewitchingly interfaceted rhythms of the Scherzo of Tippett's Second Symphony exemplify opposite poles of artistic method.

SIR MICHAEL TIPPETT (he was knighted in 1966) was born January 2, 1905, in London, of parents of Cornish descent. He studied at the Royal College of Music—composition with Charles Wood and R. O. Morris (significantly for Tippett, Morris was the author of a noted book on sixteenth-century contrapuntal technique) and conducting with Sir Malcolm Sargent and Sir Adrian Boult. His compositions prior to 1935 (they have all been suppressed by the composer) reportedly showed the influence of Sibelius. But beginning with the Fantasy Sonata of 1938, Tippett established a highly personal and individual compositional style. Its rhythmic basis was founded upon the madrigal technique of the sixteenth century, in which the bar line has no more than a visual significance and the rhythmic independence of every voice is emphasized, each providing continually fresh impetus to the others.

Tippett is unusual among contemporary composers in that his music cannot really be divorced from the rest of the man. His concerns with life are his musical concerns and vice versa. His operas and his oratorios adopt philosophical, religious, and psychological positions which are as intrinsic to them as the music. As a conductor, he is an extraordinary interpreter of the works of such composers as Purcell and Tallis (he conducted the first recorded performance of Tallis' now familiar Forty-Voice Motet for 78-rpm discs), and though he is deeply concerned with matters of authenticity in those performances, somehow the works themselves expand to take on something of the personality of Michael Tippett as his own personality seems to subsume a perception and assimilation of the music he conducts. He has critical and literary talents as well, and is highly regarded as a radio commentator on music. He has written much about music, including a volume of essays under the title Moving into Aquarius, a name chosen, by the way, long before the current public fascination with that zodiacal sign. Not least, Tippett has for many years been an esteemed teacher, formerly at Morley College, where he succeeded the composer Gustav Holst.

Bernard Jacobson's new estimate of Sir Michael Tippett as composer and as man comes none too soon for so brilliant, if so previously underestimated, a talent. But the composer, now in his seventieth year, can take some satisfaction in the knowledge that his message is at last getting through, and that this tribute, though not the first, is not likely to be the last either.
In the matter of assigning differentiated thematic material to specific instrumental groups within the orchestra, Tippett’s practice has been similarly undidctrinaire. In his case, the notion grew naturally out of the more or less traditional association of musical ideas with particular characters in King Priam. Even here, the technique is employed with all the freedom of an allusive rather than a systematic mind, and with none of the stiffness of the Wagnerian leitmotiv. And when he carried it over to a purely instrumental work, the Concerto for Orchestra, he used it with a flexible sensitivity much closer to Ives’ method in the Second String Quartet than to the relatively theoretical orderings of, say, Elliott Carter’s Double Concerto, in which the distribution of differentiated intervallic material among instrumental groups, though fully intelligible on paper, scarcely works at all in actual sound.

Again, in the sphere of formal organization, the varying exigencies of block juxtaposition on the one hand and of development on the other draw from Tippett a response that is always related to the compositional urge at a particular moment, and to the listener’s needs in connection with a particular work. Even though, in a work like the Second Piano Sonata (based on material from King Priam), he may set himself the task of building a structure from sharply differentiated blocks, proceeding essentially through statement rather than through development, yet development is not thrust aside at the very few moments when the course of the piece demands it.

In an opposite context, the Second Symphony, which functions basically through development of an authentically “symphonic” kind, is also able to use elements of stark juxtaposition in its slow movement, and to turn in its finale to a musical method that is an extraordinarily original fusion of developmental with juxtapositional method. This remarkable and utterly convincing movement consists of a chain of broadly conceived sections (the most rational analysis would probably find there are four) each of which seems to grow inevitably out of its predecessor, but which are almost devoid of any conventional kind of repetition or recapitulation. Most astonishing of all is the penultimate section, a long-breathed melody of great lyrical beauty which sweeps along in the violins in a series of (mostly) arcs. It requires thirty-six measures for its initial statement, and is then repeated in the lower strings, to diverge midway into a tonal variant as refreshing as it is subtle.

The use of delicate tonal shifts, often up or down by a single tone or half-tone, to produce visionary expansions of the musical landscape is, of all Tippett’s resources, probably the most powerful and characteristic. The sheer breadth of the resultant idea is elsewhere unexampled in the music of our time, and seems to me to represent a reshaping of musical time as radical as Beethoven’s was to the ears of his contemporaries. In Tippett’s own youthful musical initiation, Beethoven was the central figure, and Tippett has become, in his turn, one of the few composers who do not disappear when set against that supremely demanding precursor. For Tippett, like Beethoven, has revolutionized the musical world around him, though the manner of the Tippett revolution will not be fully apparent for a long time: such judgments need perspective.

From the standpoint of the present, the process is all the harder to define in that it follows lines obviously different—different, at least, from those pursued by the contemporary musical schools most commonly regarded as revolutionary. Perhaps the best illumination is provided by an analogy with the book Without Marx or Jesus, in which Jean-François Revel argues that it is in the United States that the true political-social revolution of our time is taking place. It is a thesis presented with dazzling ingenuity, and in the course of it Revel transforms the very concepts we use in thinking about “revolution,” not merely propounding new answers to all the old questions, but showing that a whole new set of questions, fashioned from new terms, has to be asked. In the music of the twentieth century, Michael Tippett has wrought a parallel marvel. He has not only written a different music, he has transformed the terms.

Bernard Jacobson, formerly a Contributing Editor of Stereo Review, is now Director of Great Britain’s Southern Arts Council and, we hope, a frequent contributor to these pages.
“What I’d really like to be called is just a singer”

By Bonnie Marranca
thought in my mind when I sing it. In *Tea for Two*, I think: I'm someone who has just been married for a short time and is very, very fed up with the city life, and I'm telling my thoughts and my dreams.*

The repertoire Miss Laine performs embraces an unusual assortment of musical styles, each of them treated with a jazz stylist's feeling for improvisation. On records she sings with equal assurance by composers as dissimilar as George Gershwin, Johnny Mercer, Richard Rodgers, Charles Aznavour, Carole King, and Joni Mitchell. And at Carnegie Hall last April, she sang Noel Coward's *Mad About the Boy* and Bessie Smith's *Gimme a Pigfoot back to back—and somehow made the combination work.

Commenting on her varied repertoire, she said, "It's been my problem, in fact, that I do so many different things on record. People don't know quite what to expect. People like to put you in a box. They generally like a whole album of 'slovus' written by so-and-so. But I wouldn't be satisfied if I was just a commercial artist. And I wouldn't be completely satisfied if I did all jazz. So I'm gonna please myself—that's what a 'fancy,'" she concluded in a mock Cockney accent, tossing the dozens of bronze corks from the tip to her expressive face.

Cleo Laine—born Clementine Dinah Campbell, of West Indian-English parentage, forty-five years ago—had her first taste of applause when, at three years of age, she sang *Let's All Sing the Barmaid's Song* for a community variety show. In later years she auditioned for singing jobs, entered contests—her *Embraceable You* always a Pigfoot back to back—and somehow made the combination work.

As a performer Miss Laine is willing to give an audience all the benefits she's got, but she expects an audience's attention too. "Audiences to me are friends. that's why I hate cabaret—it's battling, mainly. You can't make friends with clinking cups and saucers. At a concert the people are friendly or they wouldn't have come. So when I go there, I want to please them." And please them she does; her Carnegie Hall concert last fall lasted over three hours, and the audience still begged for more encores.

Commenting on her varied repertoire, she said, "It's cause it's something that will benefit you in your working stance—will come along and give lessons, or Andre Prey—will give a lecture on jazz and classical music. They're all people who think the way we do—that things shouldn't be put in boxes," the singer says emphatically. She teaches there herself when she can. "If you're a musician you should know everything that's going on because it's something that will benefit you in your working life."
So you're about to buy
YOUR FIRST
TAPE RECORDER!
Careful...that initial step is a great big one

By Ralph Hodges

Anyone who is about to buy his first tape recorder faces the quandary illustrated by this month's front cover: there are three tape formats to choose from, open-reel, cassette, and eight-track cartridge. The question is, why should there be three, and, further, what advantages (if any) does any one of them have over the others?

The three formats were developed at different times and were intended for different, rather specific purposes (and I should explain that "format" refers both to the forms in which the tapes come to you and to the non-interchangeable machines on which they are played). Open-reel, which is the format that usually comes to mind when someone says "tape recorder," was the first of the existing configurations. The open-reel tape is wound in a pancake shape on a plastic reel much like home movie-film reels (Figure 1). And, like film, the tape in an open-reel machine has to be physically, and carefully, handled. You must unwind a length from the "supply" reel, thread it through the tape machine's guides and across its tape heads, and finally attach it firmly (usually by winding one or two layers over the loose end) to the hub of the "take-up" reel.

Open-reel machines for consumer use are almost always four-track, which is to say that they are designed to record and play back two-channel stereo in both directions of the tape. Some open-reel tape machines require that you switch the reels around in order to play or record in the reverse direction. Others—the automatic-reversing types—are designed to reverse direction when all the tape has been transferred from the supply reel to the take-up reel (completion of the forward side), winding the tape back onto the original supply reel as side two is played. It's a confusing business to describe, but it's not especially difficult to deal with when the machine is in front of you. The reason for it is that there is room on the tape for four parallel recorded tracks—one stereo pair running in one direction and a second pair running in the other, as shown in the diagram on page 71. Utilizing the available space in this way saves tape, and the other two formats follow the example set by open-reel, though in different ways. (Discrete four-channel, or quadruphonic, open-reel tapes are not recorded in both directions: all four tracks are played simultaneously in one pass by the special machines equipped to handle them.)

The eight-track and cassette formats came later. They are both "cartridge" systems, with the tape being enclosed in a plastic shell—ideally, you should never have to touch it. Eight-track cartridges were initially designed for use in automobiles, where disc recordings and open-reel tape would be
impractical. These cartridges are somewhat larger than cassettes and contain only one reel on which a long continuous loop of tape is, remarkably, wound and unwound simultaneously, as shown in Figure 2. You simply plug an eight-track cartridge into the player or recorder, and it does the rest. As its name implies, the cartridge has eight parallel tracks—it accommodates four stereo programs or, more recently, two four-channel programs. But the tape never reverses direction; instead, the tape head in the machine is periodically and automatically shifted to intercept the various sets of tracks.

Cassettes and the machines on which they are played were first envisioned as low-fidelity devices for recording speaking voices only, but somewhere along the line the cassette became a serious music medium. Cassette tapes themselves are small—a bit larger than a pocket address book. In their layout they resemble a miniaturized open-reel system, except that the two reels (simple hubs, actually) are within the plastic shell, and the tape is accessible only through openings along an edge of the housing (Figure 3). Cassettes are also recorded and played in two directions and must usually be flipped over for side two, although some automatic-reversing machines for home and automobile use are available.

Now that you know what the three formats are, let's look at their respective merits for your modest—or elaborate—tape-recording purposes. The considerations will be: fidelity, suitability, flexibility, reliability, and portability. Maybe one of these points will be a deciding factor in your case; maybe others will intrigue you and encourage you to dig deeper.

**Fidelity.** If you plan to do most of your listening to commercially prerecorded tapes, their fidelity will determine the limits of the fidelity you get in playback. It is rare that audiophiles are really knocked out by the sound of a prerecorded tape produced by one of the big duplicating companies. In general, prerecorded tapes, at their infrequent best, sound as good as discs. Of the three formats, open-reel prerecorded tapes are probably still the best in overall frequency response, noise level, dynamic range, and so forth. Cassettes rank second, and eight-track cartridges are a somewhat distant third. This is no necessary reflection on the potentials of the formats—or how they might sound if you make your own tapes. It's simply the way things are with the prerecorded products.

A prerecorded tape that doesn't have hiss is rare in any format. Dolby B processing, the hiss-reduc-
Your first tape recorder...

ing treatment for tape introduced to consumers some years ago, is available on a number of cassette releases and (so far) on a few open-reel prerecorded tapes. According to Ampex, it will soon be offered on eight-track cartridges. This process is the most effective way of dealing with hiss on your tapes, but you will have to pay more for a tape machine with Dolby circuits or buy a separate, add-on Dolby unit. Equipment with built-in Dolby circuits is much more expensive in the open-reel format than with cassettes, probably because the open-reel machines generally use four Dolby modules (to encode for recording and simultaneously to decode the monitor-head output). Cassette machines, on the other hand, almost all use two Dolby modules that are switched to encode during recording and to decode during play. The exceptions are the very expensive cassette decks (about $700 and up) with full-response monitor heads.

There are no Dolbyized eight-track cartridges available at this moment (their introduction has just been announced by Ampex, however), but there is a Dolby-equipped eight-track record/play deck (from Wollensak) that will enable you to make your own Dolbyized cartridges. I would expect the results to far outshine any commercially recorded cartridge. And the same would be true for tapes you make on your own Dolbyized equipment in the two other formats as well. Open-reel and even cassette recordings that are home-made on the best equipment are often audibly perfect. There are, however, certain unavoidable inconveniences in recording on eight-track cartridges, and these will be discussed later on.

● Suitability. None of the three formats is compatible with any other, which means that you cannot play a cartridge on an open-reel or cassette machine. (However, there are a few tape decks available that have special separate facilities for two of the three formats. There are also adaptors that will permit cassettes to be plugged into eight-track players, but they seem somewhat unreliable at best.) Therefore, you must think about the suitability of a particular tape format to your present and future needs and way of life. For example, if you bought your present automobile with a tape player already installed, chances are it’s an eight-track unit, and this is a persuasive argument for owning a home eight-track recorder/player to generate new material for car play and to be able to play at home the tapes you have acquired to listen to while driving.

But if you’re starting from scratch, an automatic-reversing cassette player is fully as convenient (and safe) to use in a car—and four cassettes will fill a space occupied by one eight-track cartridge. Also, with a cassette deck connected to your high-fidelity system, you’ll be able to make tapes to play either at home or in your car.

One question you’ll have to deal with sooner or later is whether to buy a tape recorder or a tape deck. A recorder, in current parlance, is a machine that comes complete with its own amplifiers and speakers—in other words, a self-contained music system. A deck is designed to be connected to an existing music system (appropriate plug-in jacks must be provided on the amplifier or receiver), and it will never make a sound until it is. Recorders and decks are available in all three formats. (It might also be mentioned that many recorders can function as decks as well if they are connected to an external music system through special output jacks; in this mode of operation the recorder’s own built-in speakers and amplifiers are simply by-passed.)

Four-channel prospects enter into the question of suitability to your needs. Should you want four-channel sound, which of the formats is best for you? In the eight-track and open-reel formats, four-channel recording is now a reality. You can buy discrete quadraphonic eight-track tapes and a few open-reel quadraphonic releases, as well as special machines to play them and even to record your own. But be warned that the equipment to play the Dolbyized discrete quadraphonic open-reel tapes that are emerging is going to be expensive.
Philips, the firm that licenses the cassette format, endorses discrete four-channel cassettes only in a form that is technically difficult to cope with. It involves four parallel tracks running in one direction, and four tracks running in the other—an eight-track cassette, in other words. The technical problem arises because the track width of an eight-track cassette is half that of the eight-track cartridge. This means increased difficulties with noise and overload, to say nothing of the problems of producing the special tape heads required. So far, only JVC has grappled with the many problems, and availability of its machine is limited. Since other manufacturers don’t seem to be racing to catch up, it may be that the first prerecorded four-channel cassettes will carry two-track programs that have received so-called “matrix encoding” for four-channel reproduction through a suitable decoder.

- **Flexibility.** The idea behind the first high-fidelity cassette deck was to approach the same performance and flexibility afforded by open-reel equipment, but in a form that was more compact and easier to use. By and large, this goal has been reached. Cassettes are generally available in playing times from 15 to 90 minutes in each direction of tape travel, which nicely corresponds to what can be recorded on the various lengths of open-reel tapes (on 7-inch reels at 7/2 inches per second). Cassettes are much easier to handle (threading some open-reel machines requires a knack that some master more quickly than others), and dozens of them will fit in an ordinary shoe box. Editing a cassette tape is considerably more difficult than editing an open-reel recording, but some people seem willing to attempt it. Since the prices of the best cassette decks generally end where those for good open-reel decks begin (somewhere around $300), the two formats do not really compete on the basis of cost.

Look at the eight-track cartridge and you’ll immediately see that it’s a system basically intended for playback. Cartridge recording is a clumsy business, and for this reason there have been few cartridge recorders on the market until recently. The longest-playing cartridges I know of run 94 minutes in four segments of 23/2 minutes each. Every 23/2 minutes the endless loop of tape in the cartridge completes one full circuit, and the tape head shifts automatically, with a “chunk,” to engage another set of the parallel tracks on the tape. It does this three times (once for the Q-8 four-channel cartridges), and then you’re back where you started. The cycling process is the same for recording as for playback, and since there is a break in the program every time the tape head has to reorient itself, the recordist has to keep careful track of the passing minutes if he doesn’t want his music interrupted. He can’t just look (as he can with cassettes and open-reel) to see whether he is running out of tape—even if he could see it, which he can’t, he couldn’t tell. A timer is therefore required. Some Wollensak and JVC eight-track recorders, incidentally, have such timers built in.

Although most eight-track decks provide a fast-forward speed, you can’t reverse an eight-track cartridge. Thus, backtracking for editing or any other purpose is simply out of the question. To return to a specific point on the tape you must fast-forward along through the entire loop until the spot comes up again.

All this has effects on the prerecorded product as well. A disc’s worth of music offered in eight-track form has three interruptions instead of the disc’s one. This is okay for popular songs, but disturbing for long classical works such as Beethoven symphonies or Strauss tone poems. On one such cartridge I heard recently each track-switching break was preceded by an aesthetically disturbing fade-out—then a fade-in after the track switch! In a car one could perhaps live with such anti-musical distractions, but not in the home.

- **Reliability.** According to reports, cassette and eight-track troubles are most frequently caused by the tape and its container, and open-reel difficulties...
Your first tape recorder...

generally result from failures of the transport mechanism. Whatever the causes, the malfunctions manifest themselves in two ways: mechanically (the moving parts become erratic or inoperative) and electrically (one or more channels become weak, distorted, or noisy, or go dead altogether). Electrical problems can occur with any format, at any time; it's up to the designer of the equipment to foresee and prevent them. But tape-motion troubles, if they are caused (as happens with cassettes and cartridges) by the tape pack itself, reflect on the whole format. Open-reel has tape-pack problems of its own—warped reels and, sometimes, rippled tape edges. But transferring open-reel tape to a new reel is easier than prying open a cassette or cartridge to rescue the jammed tape inside.

Tape jamming within the plastic container has plagued cassettes since their beginning, and only in the past year or so has it seemed that jamming will diminish to a "normal" defect rate. Eight-track cartridges have a special problem. Since layers of tape wound on the reel must be free to slide past each other, the tape has to be treated with some kind of dry lubricant, and it appears that in time the lubricant can wear out (or off). If there is a way to avoid this, it is simply to buy only cartridges of the very highest quality—good advice, incidentally, for any of the tape formats.

The tape industry does offer warranties on its products. Many manufacturers of premium cassettes advertise unconditional replacement if their product ever causes trouble. The written guarantees for high-quality blank eight-track cartridges are less specific, but spokesmen for several of the major companies assure me that cartridges are also routinely replaced when a defective one is returned.

- **Portability.** This is a consideration that will interest only certain readers of this magazine. Some are looking for carry-along entertainment, and for them cassettes and cartridges should be equally suitable. The size of a portable tape player is mostly determined by the size of its speaker, but you can fit more cassettes than cartridges into your coat pocket. However, if you already have a large collection of cartridges, this might influence your choice and make you decide on one of the portable eight-track players.

Other readers may want to make high-quality recordings on location. The best—and in some cases the smallest—machines for this purpose are the special-application, battery-powered open-reel units (Nagra, Stellavox, Uher, and so forth) designed for recording film soundtracks and other professional uses. Ironically, the smaller they are, the more horrendously expensive they are. There are a few pocket-size battery-operated cassette portables that do a surprisingly good job of recording music with their built-in microphones. And Sony makes a stereo portable cassette recorder (Model TC-152SD) with built-in Dolby circuits and provisions for chromium-dioxide tape.

A few home cassette decks are available with high-quality microphone inputs, and, since they're small to begin with, they can be carried any place there's an a.c. socket to plug into. And, of course, there are portable versions of many popular full-size (and heavy) a.c.-operated open-reel decks. They are termed "portable" because they are supplied with carrying case and handle, but you have to supply (a lot of) muscle and a.c. power. Such a tape machine is not the kind you'd choose for recording bird calls.

I do not know of any portable eight-track units designed for recording.

- **Summary.** The foregoing discussion of the present state of tape recording and its formats should provide you with the basic information you need in choosing the format for a first tape recorder. There are other factors that could have an effect—for example, the availability of the kind of music you like in one format or another. Ampex Stereo Tapes reports that sales of prerecorded cassettes last year amounted to a considerably smaller share of the prerecorded tape market than the year before. Also, prerecorded open-reel tapes have been growing in popularity since Dolbyized offerings were introduced. Personally, I don't think these data show anything but the inclination of cassette-deck owners to record their own material (sales of blank cassettes are way up) and the interest of open-reel enthusiasts in new prerecorded offerings of high quality. I don't think these reports indicate the future dominance of open-reel in the prerecorded market or the disappearance of cassettes from it. If you are concerned about the availability of the kind of music you like prerecorded for a tape format you are considering, a quick check of the Schwann catalog will reassure (or discourage) you.

In any case, trends of the moment are risky as long-term indicators. It seems clear that all three formats are going to be with us for quite a while, and your choice of format and particular model should be made on the basis of your current recording requirements rather than on an attempt to guess what the distant future holds.
Rodrigues On Tape
By Charles Rodrigues
A few guidelines to help you plan your own

HOME RECORDING STUDIO

By Craig Stark

When most of us think of a recording studio, we conjure up the image of a huge control board with more knobs than we could learn to use in a year; of massive sixteen-track recorders that use 2-inch-wide tape; and of forests of microphones in an adjoining, acoustically treated, glassed-off room large enough to house a symphony orchestra. But, for most professional recording, all that complex and costly flexibility simply isn't needed. In fact, it is quite possible to
construct a suitably scaled-down version of a commercial facility in your own home. Moreover, even if you are not interested in becoming a professional, being known in your area as "the guy to get in touch with about a recording" will open up a world of acquaintances you'll find immensely rewarding.

The point to begin, perhaps, is at the recognition of some of the differences in perspective between the amateur and the professional recordist. (Even if you don't intend to charge for your services, for the moment, at least, "think pro.") When an audiophile dubs a disc or a radio broadcast, records his child's first words or his grandmother's last, the tape he makes is essentially a finished product. Much of what goes on in a commercial studio, however, concerns the processing of an original "raw master." Except in rare instances, the original tape made is not the same as the tape delivered. Let me illustrate this with a personal example.

I recently recorded the retirement ceremonies for a local bishop, beginning with a massive church service and ending with a large testimonial banquet at a nearby hotel. The result was two 101/2-inch reels of tape, one for the service and one for the dinner speakers—and I find that at least a couple of dozen people want copies (some cassettes, some open-reel). My real job is just beginning, for I must: (1) edit the tapes, taking out some—but not all, or it wouldn't sound natural—of the verbal fluffs of the performers, but providing proper and reliable recording gear is up to you. Suppose, for the moment, that you have a high-quality, quarter-track audiophile recorder and some good discs that you can dub (and play back at equal volume) to compare directly with the originals. At the 71/2-inch-per-second speed the differences between original and tape copy should be barely audible, but you should learn to listen for them. If you have trouble spotting them at 71/2 ips, try the following comparisons at the 33/4-ips speed, where they'll be more apparent. Committed to tape, however, the same mistakes will be heard again and again, and what the listener (to say nothing of the artist!) will come to anticipate is not the musical line, but the errors. And that kind of expectation, whether of wrong notes or hiss during a quiet passage, can destroy all feeling for the music.

Perhaps the best time to start developing your ear is when you are checking out the equipment you are considering for your studio—the music is up to the performers, but providing proper and reliable recording gear is up to you. Suppose, for the moment, that you have a high-quality, quarter-track audiophile recorder and some good discs that you can dub (and play back at equal volume) to compare directly with the originals. At the 71/2-inch-per-second speed the differences between original and tape copy should be barely audible, but you should learn to listen for them. If you have trouble spotting them at 71/2 ips, try the following comparisons at the 33/4-ips speed, where they'll be more apparent. First, listen for hiss during some very quiet sections; you'll hear more on the copy than on the original. (Studios traditionally monitor at an almost ear-shattering volume level, partly to make any hiss audible). Then listen to moderately loud selections of a solo violin. Your copy will probably have a slightly "fuzzy" or "edgy" quality, as if the hiss and/or distortion were riding on top of the original sound. Also, you'll likely hear (especially at 33/4 ips) a slight dulling of the "highs" on a cymbal and
a slight vibrato-like effect (called wow) on sustained single piano notes.

At this "first-generation" level the differences will probably be so slight (particularly at 7½ ips) that you can safely surmise that a customer could, like you, hear them only in a direct A-B comparison with the original. Good! That's what you want. But if you have to make a copy of your tape copy, and still another copy of that copy, small differences are likely to become glaring. You must therefore minimize these defects at the very outset so that the final product will be acceptable.

Choosing the Master Recorder(s)

For mastering work, too, 15 ips is the speed of choice, and you should never use less than 7½ ips. I asked a friend what he'd do if he had to tape a live concert and found that, at 15 ips, he couldn't get all the music on and wouldn't have time to change reels. Without hesitation he said he'd bring two 15-ips machines, and as the first reel came near the end, he'd start the second one, then splice the tapes together later, rather than use 7½ ips. Indeed, he went on, there's a tendency in modern studios to return to using 30 ips.

This may seem surprising today, when many good home tape machines can honestly claim a frequency response that is flat to 18 kHz or higher. Part of the reason for using faster speeds lies, again, in preventing noise. You'll find several decibels of difference in signal-to-noise ratio (S/N) between 3¼ and 7½ ips on almost all machine specifications. And the faster the speed, the less wow and flutter there's likely to be. The most pressing reason, however, is disclosed by the curves shown in the graph on the facing page. In order to achieve flat response at the very high frequencies, recorders must boost the highs before they reach the tape—a process called "recording equalization" or "pre-emphasis," and the slower the tape speed, the greater is the need for such treble pre-emphasis.

For most notes in most music this presents no problem, for they contain very small amounts of really high-frequency energy (say, 10,000 Hz). But some sounds, such as a cymbal crash, do contain a tremendous amount of high-frequency energy. To add 1 dB of treble pre-emphasis at 10,000 Hz—all that's required at the 15-ips speed—would be no big deal. But to add 10 dB boost to a "hot high-end" signal as the recorder would do at 3¼ ips is a sure invitation to tape saturation (overload) and audible distortion.

Your studio must also be equipped to handle the big 10½-inch reels, and unless you want to buy a separate machine for on-location mastering, portability is a factor. Most machines you will consider will have three heads: one for erase, one for record, and a third for playback. A few, however, have space in the head-mounting area for a fourth, additional playback head, and this can be a tremendous
plus. For years I got along with only two recorders, one with three half-track heads and a fourth quarter-track playback-only head. The other machine had three quarter-track heads plus a fourth, half-track, playback-only head. In this way, if someone brought me a regular quarter-track tape and needed a quarter-track copy, I could play it on the first machine and run off the duplicate on the second. Half-track to half-track (for discs, broadcasts, or making submasters) was just vice versa. My own masters are, of course, all half-track, but I could make quarter-track copies of them for home use.

Today, of course, you'll have to add the ability to make high-quality cassette copies (with or without Dolby-B). And, as I suggested in my "Tape Horizons" column last month, for making quarter-track copies, for four-channel recording, or, in a pinch, playback of half-track tapes (using channels 1 and 4 only), you might well consider one of the new quadraphonic recorders. (To make four-channel recordings using the track width provided by the half-track format requires 1/2-inch-wide tape, machines for which usually start at about $3,000—a little steep for a beginning home studio.)

Microphones

If you're going to be doing any live recording, either in your home studio or on location, you'll obviously have to have microphones. This is perhaps the most controversial aspect of picking your equipment. Ask six different recording engineers how they would mike some musical instrument—and with what—and you're likely to get eleven different answers. If you're contemplating starting your own studio, let me recommend a just-published work by Lou Burroughs titled Microphones: Design and Application ($20 from Sagamore Publishing Co., Inc., 980 Old Country Road, Plainview, N.Y. 11803), and then confine myself here to the basic choices.

(1) Microphones are categorized according to three basic directivity patterns. (a) Omnidirectional mikes pick up sound equally well from all directions, generally tend to have the smoothest frequency response, and are to be preferred when you have to cover a large area—an orchestra, pipe organ, chorus or choir, etc. (b) Unidirectional (also called "cardioid") mikes reject sound from the rear, and, to some degree, from the sides, and so are useful in keeping out audience noise in a live performance, miking a single instrument or section, or a soloist. (c) Bidirectional (or "figure-eight") microphones reject sound from the sides only and are useful in some situations, but not very many. My recommendation for a minimal beginning studio, then, is one quality pair each of omnis and cardioids.

(2) Microphones are also classified according to their impedance. High-impedance (generally 50,000 ohms down to about 10,000 ohms) and middle-impedance (a couple of thousand ohms up to about 8,000) microphones are generally wired "single-ended" or "unbalanced"—that is, with single-conductor shielded cable, similar to—but thicker than—the cable used in home hi-fi hook-ups. For studio work, avoid both and get low-impedance (50 to 250 ohms) microphones that take "two-conductor plus shield" cable. This is necessary to preserve high-frequency response and eliminate hum when you have to—and you will—use long cables.

(3) Microphones also vary according to type: ribbon, dynamic, or capacitor (also called "condenser"). Ribbon mikes, rare today, tend in most cases to be fragile but are capable of excellent performance. Dynamic microphones are the most popular type, and they list from about $50 to $200 for professional models. Generally very smooth in frequency response, they tend to droop at the extreme ends of the audible range, though some are exceptions to this rule. For extended high-frequency response, however, condenser mikes are the almost universal choice of professional studios, though they usually require a special power supply and cable and generally cost from about $125 to $500 each. Recently several companies have introduced a new type of capacitor microphone, called the "electret" type, that requires only internal batteries. Some of these rival good dynamic microphones in sound quality. They are worth considering—if you can remember to change batteries and turn them off when not in use.

This is only the most rudimentary introduction to

Typical recording pre-emphasis characteristics of a 1/4-inch tape at three speeds. As the tape speed becomes slower, a considerable amount of high-frequency boost must be applied to the signal to be recorded to offset the unavoidable high-frequency losses.
microphones, of course, but it should convince you to look into the matter with great care before you commit too much of the (probably) slender resources of your burgeoning home studio.

In planning your mike setup, count on one floor stand plus an accessory baby boom for each. (A boom not only helps you position the microphone in front of an instrument more exactly, but can extend the maximum height of your stand, a feature often needed in concert-hall recording). Count too on one 30-foot and one 25-foot cable, with appropriate Cannon-type connectors, for each mike.

Controlling the Signals

If your experience with a home studio is like mine, you won’t start out with—or ever progress to—a $50,000 recording console. However, it’s important to understand something about the various functions of such equipment and how it differs from hi-fi gear in order for you to pick out the proper units for your home studio. A typical stereo preamplifier doesn’t allow you to “mix”—combineseveral different inputs (microphones) on each channel, each with its own separate volume control. There’s just no need for that feature in hi-fi equipment. However, for studio work, you do need this capacity. (This month’s and next month’s “Tape Horizons” discuss “mixers,” so I won’t go into the subject further here).

As your home studio becomes more sophisticated, you’ll probably feel the need for tone controls (“equalizers”), not simply on each channel, but on each of the separate inputs you’re feeding into each channel, and “pan-pots” that can electronically place a soloist anywhere on the stereo stage. Similarly, you’ll probably want the ability to use artificial reverberation and limiters—but that goes beyond the requirements of a basic home studio.

The Studio Itself

We come, finally, to your live recording and monitoring environment. Mine is in my basement: one friend’s is carefully built-in—and so hidden—in an average-looking living room of a suburban three-bedroom home: still another’s is so elaborate that he literally built his home around his recording studio. You can get unsatisfactory sonic results from any of them, but the converse is also true. You can’t record Callas in a closet or put the Mormon Tabernacle Choir into your bedroom, and obviously the more cubic space at your disposal, the more flexible you can be regarding what you can record in your home and what must be recorded in an auditorium elsewhere. My rule of thumb is simple: if the sound of the actual speaker, singer, or instrument(s) is good in your recording room, you ought, through proper placement of mikes and performers, to be able to get a really good recording without resorting to artificial reverberation unless you’re looking for special electronic effects. The test, obviously, is playback in your own living room, through a good reproduction system, for that’s where the final product will be judged.

Even the best of home listening environments may require a little help to be suitable for live recording, however. All of us learn to automatically disregard certain persistent noises that others, unaccustomed to our specific acoustic environment, will notice. By this I mean the sound of a furnace, a clothes drier, or even the tape deck; the sound of water through pipes; the rumble of distant trains or trucks: children playing outside (keeping your storm windows on is a good precaution against this); and even the sound of a ticking clock or high-flying airplane overhead. Before you try to use your home studio for live recording, check these things by setting up your mikes and recording four or five minutes of “silence,” then playing it back at an above-normal volume. You’ll be surprised how much extraneous noise (besides tape hiss) you will hear, and this is what you must minimize.

Occasionally, too, echoes, a lack of “presence,” or some other acoustic defect will be found in your recordings. These can sometimes be cured by “haffles”—either absorptive or reflective. An ordinary sheet of plywood, coated on one side with acoustic tile and on the other with heavy-duty aluminum foil, gives you a multipurpose tool that can increase or decrease the reflected sound reaching a microphone and thus modify the sound quality. And, as you learn to listen to not what you’re used to, but to what others will hear, you’ll find, for example, that there’s a quite different sonic environment even when heavy curtains across a bay window at one end of the room are open or closed.

No article, or even a series of them, can give you all the answers about planning a studio for your home. In the final analysis, the most important device you are going to bring to your recording tasks is your ear. It’s worth training, for ultimately that’s what any high-fidelity recording is designed to delight.
THE KNOT GARDEN: A NEW OPERA BY MICHAEL TIPPETT

The composer continues his exploration of the myths that might make us whole

The U.S. release of The Knot Garden, the second opera by the British composer Michael Tippett to be recorded, has been neatly timed by Philips Records to coincide with the first American production on the campus of Northwestern University in Evanston, Illinois, on February 22. The recorded performance, led by devoted Tippett champion Colin Davis, is a notable though not flawless achievement, and it offers American audiences beyond Evanston an opportunity to acquaint themselves with one of the most recent—and most thought-provoking—works of a composer still too little known on their side of the Atlantic.

It might seem curious that the first evaluative phrase inspired by this three-act opera should be an intellectual one such as "thought-provoking." Ratiocination is not an activity commonly associated with opera, but it may as well be said at once that The Knot Garden is not primarily a piece for connoisseurs of the human voice, though Tippett's lyrical gift is such that, even when he is thinking of other things, his singers generally end up with a more grateful vehicle for vocal allure than most contemporary composers provide for them.

Tippett's first line of interest, at any rate, is far removed from conventional notions of coloratura warbling—and from the more "serious-minded" naturalistic-dramatic concerns of most Italian opera in the nineteenth and twentieth centuries as well. In his first opera, The Midsummer Marriage, completed in 1952, he was already seeking a new concept of opera as a trenchantly philosophical, essentially mythic art form, close to the cosmological explorations of Der Ring des Nibelungen but worlds apart from Wagner's musical style in its joyful, affirmative character, its freedom from morbidity, and its magical, light-winged celebration of life: dance rather than dirge.

In the appreciation of Tippett that appears elsewhere in this issue, I have tried to give some general account of the way the composer has prosecuted his quest, first in The Midsummer Marriage and later in King Priam (completed in 1961). In this review, it may be useful to offer a word on how The Knot Garden, finished in 1970, stands in dramatic and musical relation to its two predecessors. For one thing, it is more obviously oriented toward present time and present concerns than either of them. Marriage was set in a "present" of sorts, but a timeless present whose mythic terms of reference were emphasized by its overt components of ancient Greek, Hindu, and Golden Bough-anthropological cult and culture. Priam explored humanity and its relation to an immanent world through the framework of one specific ancient myth. The Knot Garden, in contrast, is explicitly modern, as a glance at the list of characters immediately shows: Faber is "a civil
ENGLISH BARITONE THOMAS HEMSLEY
Superb in the role of Mangus

engineer," his wife Thea "a gardener," and Flora, their ward, "an adolescent girl." Denise, Thea's sister, is "a dedicated freedom-fighter"; Mel "a Negro writer in his late twenties": his white friend Dov is "a musician"; and, most symptomatic of all for our time, Mangus is "an analyst" who has been called in by Faber and Thea to advise on Flora's problems.

But, for all this, the "eternal" aspects of plot and character are just as central as in The Midsummer Marriage. In an elaborate network of links with The Tempest, Tippett (as usual, his own librettist) makes it clear that Mangus is as much Prospero magician-figure as analyst. And the action, as before, is only the surface layer of a searching inquiry into the human personality and its complementary body-soul elements.

Superficial consideration might suggest that the "up-to-date" touches — analysis, freedom-fighting, and a nod at racism — are themselves superficial attempts to exploit "with-it" attitudes and interests. On the musical side, a similar criticism could be leveled at the score's various bows in the direction of blues and jazz idioms. But my developing acquaintance with the work leads me to believe that such comment would be wide of the mark. The politico-social "props" are merely useful contemporary symbols for concerns that have been central throughout Tippett's development. Further, black idioms have been equally genuine elements in his musical language, not only in obvious cases like the spirituals in the early oratorio A Child of Our Time and the blues settings in the recent Third Symphony, but on a much more pervasive level of harmonic and rhythmic coloration.

The Knot Garden has, I think, its faults. They are not, however, the result of a basic dishonesty of outlook, but of shortcomings in execution. One of these is purely verbal: Tippett has not succeeded in reconciling the banalities quite reasonably permitted entry through the "modernistic" aspects of the libretto with a tendency toward more formalistic utterance of an "old-fashioned" kind. Phrases like "You'd like to take the mickey out of me" and "Take that, you cur, you coward" hardly sit well together in the same work. More seriously, the allusive brilliance of Tippett's mind has misled him into a degree of ellipticality too concentrated to work in stage, or generally dramatic, terms. The opera is simply too short for the length of its story. Neither in words nor in musical development is the final reconciliation of Faber and Thea convincingly prepared, so that their closing line, "The curtain rises," which would be a telling use of paradox if the plot had fully made its point, instead remains merely on the level of a cute trick.

FLAWS and all, this is a stimulating work whose rewards multiply on closer familiarity, and the inexhaustible freshness of Tippett's vocal and orchestral writing is masterfully deployed in a style that reconciles the hard-edged clarity of King Priam with the prodigal textural luxuriance of The Midsummer Marriage. Colin Davis' understanding of the piece is as sympathetic as his previous Tippett advocacies, though, surprisingly, he lets some of the singers (Robert Tear in Dov's ecstatic Californian song and Josephine Barstow at a crucial point in the last act) get away with damagingly lax rhythms. But these are small blemishes. The superb Mangus of Thomas Hemsley, a great baritone who ought long before now to have been heard in the U.S., is more characteristic of the whole, and Philips' recording is impeccable. Even the complex septet at the end of Act 1 emerges with perfect lucidity, and the test pressings I heard were absolutely silent.

BERNARD JACOBSON

TIPPETT: The Knot Garden. Yvonne Minton (mezzo-soprano), Thea; Josephine Barstow (soprano), Denise; Jill Gomez (soprano), Flora; Thomas Hemsley (baritone), Mangus; Thomas Carey (bass-baritone), Mel; Robert Tear (tenor), Dov; Raimund Herincx (baritone), Faber. Orchestra of the Royal Opera House, Covent Garden, Colin Davis cond. PHILIPS 6700 063 two discs $13.96.
ENGLISH COMPOSER JOHN BULL (c. 1562-1628)

An extraordinary

In Nomine

The Bull by force

In field doth Reigne

But Bull by Skill

Good will doth Gavne.

THE HARPSICHORD IN TUDOR ENGLAND

Colin Tilney presents a carefully chosen and splendidly stylish program on Argo

THOUGH the catalog is not lacking in recordings of English harpsichord music of the time of Henry VIII's later years and, especially, those of Elizabeth I, Argo's new collection titled "English Virginal Music" played by Colin Tilney is not only most satisfying but musically important as well. There is, first of all, a splendid selection of pieces, ranging in time from Hugh Aston's sprightly hornpipe (one of the first pieces that can be described as idiomatically written for harpsichord rather than any general keyboard instrument) of about 1540 to some early-seventeenth-century miniatures by John Bull. Second, although Tilney includes in this collection a few of the more popular examples of virginal music ("the virginals" was the generic term for harpsichord in England during this period), he alternates them with several elaborate masterpieces, grand creations such as Bull's extraordinary ninth In Nomine or Byrd's superb Fantasia in A, both of which stand at this repertoire's pinnacle.

The careful and intelligent program planning is aided not a little by Tilney's choice of the two instruments he plays, both of them reproductions of historical models: one side is played on an Italian harpsichord made by Jean-Pierre Batt after the well-known 1677 Faby of Bologna instrument, and the other is played on a Flemish virginal copied by Derek Adlam from a 1611 instrument made by Andreas Ruckers. Both of these sound exceptionally good on this disc, mellow, glowing, and utterly natural in recording perspective—which is to say not unnaturally close or strident.

Finally, there remains to be mentioned only Tilney's superbly stylish, deeply felt, immaculately executed, and musically penetrating performances. There are so many delights in this disc that it can be recommended with enthusiasm to any collector of early keyboard music. Let us hope that Colin Tilney, one of England's most admirable keyboard performers, will not be long in giving us a second volume of the same.

Igor Kipnis


THE STURDY ELOQUENCE OF THE KINKS

"Preservation Act 1" is another move in their campaign to keep rock honest

THE Kinks' album "Village Green Preservation Society" (my copy of which is lost, lost, lost. . . .) is said to have resulted from a remark someone made to Ray Davies to the effect that the Kinks "preserve things," meaning, one supposes, the music-hall flavor and all that. Now we have "Preservation Act 1" (notice that there's no comma between Preservation and Act) from RCA as a sequel to that album—another bash at it, as they say over there. Johnny Thunder is back, "a little overweight/And his sideburns are turning grey," riding his motorbike with Fifties rock-and-roll thumping in his head, One of the Survivors. Just before he reappears, the Tramp poses the musical question Where Are They Now? (meaning the Teddy Boys, Christine Keeler, the Beatniks, and others of recent memory) in a song that ends with the line (punctuated by some of
The Kinks: Preservation Act I. The Kinks (vocals and instrumental); Krysia Kocjan, Sue Brown, Pamela Travis, Lewis Rich, Lee Pavey (backing vocals). Morning Song; Daylight; Sweet Lady Genevieve; There’s a Change in the Weather; Where Are They Now?; One of the Survivors; Cricket; Money & Corruption/I Ain’t Your Man; Here Comes Flash; Sitting in the Midday Sun; Demolition. RCA LPL 1-5002 $5.98, LPS1-5002 $6.98, LPK 1-5002 $6.98.

The Newport Festival Blues

Buddah brings in a bumper harvest of great originals from last summer’s jazz gathering.

For the past fifty years or so, America’s popular music, whether it came from the Tennessee hills or Tin Pan Alley, has not been able to escape the influence of the blues. No one can pinpoint its origin, but year after year, from cat house to concert hall, the blues in its most basic form has been able to evoke an emotional response rivaling the kind a gifted Baptist preacher can conjure up.

When Bessie Smith and her colleagues bared their souls in the Twenties and Thirties, audiences were whipped into near frenzy. Helen Humes, Wynonie Harris, and Eddie Vinson carried on the tradition in the Forties. Big Mama Thornton, Arthur Crudup, and Muddy Waters saw many white performers turn their blues into gold during the last two decades, and they have survived to carry their emotional impact themselves into the Seventies, the age of electronic rock.

The Kinks: John Dalton, Dave Davies, Ray Davies, Mick Avory, and John Gosling

those marvelous Dave Davies guitar chords), “Yeah, rock-and-roll still lives on.”

Now, then: I don’t know just how ambiguous Ray thought this thing ought to be, but the record does seem to view itself in part as a holding action for rock-and-roll, no less. And why not? The Kinks may be the very people best qualified for that kind of “preservation act.” Ray Davies continues to see the music as belonging still to underpowered people (which is how it started out), and here he proves again, as has he so many times before, that its simple beat and chord layout can be used to produce songs that should have been in our heads all along—we should have been born that way. Ray does more with melody than any post-Beatles rock composer, and of course nobody can touch him at making simple, blunt, working-class language and speech rhythms come out eloquent. These songs are singularly—well, sturdy. Daylight alternates between pastoral chorus and nitty-gritty, Oh-God-it’s-morning verse. Sweet Lady Genevieve is a beautiful ballad with a great opening line (“Once under a scarlet sky I told you never-ending lies”). Cricket has the Vicar idling away his time making cute analogies of the “life-is-a-game-so-play-fair-and-square” sort.

The Kinks’ performances are steadier also, although the scrappy, disorganized sound remains. The horns (now permanent) are better integrated, and Laurie Brown (now listed as a member of the group) does some vocal backing of the “aah” and “oooh” kind that seems well-nigh vital now that I hear it in there. Just about everything else fits too. Will it all preserve Rock and Other Good Things from the ruling classes and their Alice Cooper billboards and their Maidenform commercials? It just may, I should think, help.

Noel Coppage
New York has had its share of fine blues concerts, but the one Buddah recorded at Lincoln Center's Avery Fisher Hall as part of last year's Newport in New York festival has to be one of the finest the city has heard in recent years. Big Mama Thornton, whose *Hound Dog* helped launch the career of Elvis Presley, opens the program with two of her own songs which became hits in versions by the late Sam Cooke and Janis Joplin, and she is simply magnificent. Arnett Cobb's *Smooth Sailing* is superbly played by violinist Claude Williams, a sixty-six-year-old veteran of Andy Kirk's band whom the producers fail to credit on the album. There is a remarkably faithful rendition of Meade Lux Lewis' *Honky Tonk Train Blues* played by pianist Lloyd Glenn. Muddy Waters, in top shape, comes off better than he has on his recent Chess albums. Jay McShann, the Kansas City band leader whose orchestra launched the talents of young Charlie Parker, sings *Confessin' the Blues* (a popular number which Walter Brown, his late vocalist, used to feature) and plays superb piano accompaniment on many other tracks. Eddie “Cleanhead” Vinson is heard to great advantage in a set of four of his old favorites. Arthur “Big Boy” Crudup, who, from some place in obscurity, saw Elvis Presley make a hit out of his *That's Alright Now Mama*, is not as strong as he once was, but he has enough left in him to demonstrate why he has had such great influence. Clarence “Gatemouth” Brown, who has quietly maintained his musical activity in Houston for the past twenty years, is represented by two selections that prove he is far too good for mere local renown. B. B. King, the evening's master of ceremonies, is, of course, the most famous member of this impressive assembly, but, ironically, his single track, *Outside Help*, turns out to be the least interesting of the lot.

I find no fault with the album's music, but I do think the producers could have listed the people responsible for some of the excellent accompaniment heard throughout. But that's minor. If you want to get the blues, I recommend you get them in the form of this exquisite set.

Chris Albertson

They put a rotary engine in a car. We put a cam shaft in a turntable. For the same reason.

The reason? To make it quieter, smoother, more reliable.

The basic record changer mechanism—like the automobile's piston engine—has been a fairly reliable device that has served with some success for many years. But the very action of the engine—or the changer—produces constant vibration and strong, sudden movements that can ultimately wear it out. Now we have alternatives. For cars, the Wankel rotary engine. And for record players, the sequential cam shaft drive mechanism used in BSR's finest automatic turntables.

Its even rotating motion programs the complex automatic functions of the BSR 710 and 810 smoothly and without noisy and potentially harmful quick starts and stops, without slamming metal against metal. And because the cam gears are mounted on a carefully machined central shaft, they are all but impossible to put out of alignment by rough handling or constant use.

The result: consistent care-free performance, and good music. With the BSR 710/X and 810/X Transcription Series Total Turntables. BSR (USA) LTD., BLAUVELT, NEW YORK 10913
MARCH 1974

85

ness there is a strange kind of comfort. The
tunes here are taken at slow tempos, yet
there's nothing studied here, just soul.

All My Friends; Please Call Home; Multi-
visions on tunes the way Allman does. Most
be proud to invent embellishments and impro-

ist, trumpeter, pianist, or saxophonist would
be willing to give

public statement that the earth is flat, I would
ful for it. In fact, if Gregg Allman ever made a

each time I hear this album I am more grate-

ful for it. In fact, if Gregg Allman ever made a
public statement that the earth is flat, I would
be willing to give it serious consideration. Here
is one of those rare singers whose voice
can aptly be called an instrument: any guitar-
(saxophone); Paul Hornsby (clavinet, organ).

Talton (guitars); Scott Boyer (guitars, piano);
Chuck Leavell (piano, vibraphone): Tommy
Vivino (vocals, guitar, organ): Bill Stewart (drums):
GREGG ALLMAN: Laid Back. Gregg Allman
keeping reminding us that in loneli-

out of ten, it seemed. Bing Crosby’s voice
would emerge from it. Here was cool before
the word was invented, a bland, good-hu-

erance that ever went looking for a
twilight wail in his voice seems to summon up
every lonely Scots-Irish ghost from his South-

...
by Joel Dorn is impeccable. (Dorn, by the
way, is an art lover, and says that his method
times, blue-blooded. She knows what she
thetic style that is quietly red-blooded—even, at
istic structure, it drove several of my friends
, River; and four others. ATLANTIC SD
sary to make superior recordings. Thus this
iary to spend whatever time they feel is neces-
but in their recorded sound, which is clean
5.98. © 4XW-11207 $6.98. ©
MCA MCAT2-10003 two discs $11.98, ©
MCA2-10003 $12.95, ©
12.95. ©
MCA2-10003 $12.95. ©
Grace and garbage
Recording: Variable
Elton John's part in this is just dandy, up to a
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and
point. The music he wrote for Bernie Taupin's
song is much better than they deserve, and

When we introduced the Ohm F a few months ago, we called it the last loudspeaker.

We explained that this new invention (U. S. Patent 3,424,873) is the last loudspeaker in the same sense as the wheel was the last device for transmitting rotary or rolling motion.

Like the wheel, we said, our speaker is a mathematically perfect engineering concept, utterly simple and unimprovable. Only its physical construction can evolve further, not the design itself. When a single cone reproduces 30 to 20,000 Hz without crossovers and has a cylindrical output in perfect phase with the input signal at all frequencies (“coherent sound”), the design can be considered final.

Since then, our claims for the Ohm F have found support in the authoritative editorial pages of Stereo Review. In the November 1973 issue, the Equipment Test Reports by Hirsch-Houck Laboratories asserted:

“The Ohm F can do some things that no other speaker in our experience is capable of.”

After acknowledging that “the cone has not been designed to function as a ‘piston’ (as virtually all other cones are), but should be viewed as a terminated acoustic transmission line,” the review states that “the Ohm F produced one of the flattest extended curves we have ever seen ...it has a uniform energy output across the full audio-frequency range...”

Square-wave tests of the Ohm F against “several other fine speakers we had on hand,” in the words of the review, showed that “only the Ohm F was able to produce a reasonable facsimile of a square wave.” This plus the toneburst response of the speaker “tended to confirm ... that it has transient-response capabilities surpassing those of the best conventional (piston) speakers.”

Further excerpts from the Ohm F test report:

“In our simulated live-vs.-recorded test it rated A to A+ ... with one of the larger power amplifiers, able to deliver 100 watts or more, the sound began to warrant the use of such words as ‘awesome’ ... achieves state-of-the-art performance.”

The conclusion of the review requires some reading between the lines:

“As to whether or not the Ohm F is therefore the ‘best’ speaker available—we will leave that to the ears of audiophiles; we are prepared to say, however, without reservations, that it is easily one of the best.”

Think about that. Wouldn’t any responsible journal hesitate to declare categorically that a totally new and unfamiliar product is the best, period? Even if they thought so?

The Ohm F comes in a striking, tapered column cabinet, about 3½ feet high, and is priced at $400. If your local dealer doesn’t carry it yet, write us and we’ll help you.

We want your next loudspeaker to be the last loudspeaker.

Ohm Acoustics Corp.,
241 Taaffe Place,
Brooklyn, N.Y. 11205.
THE EX-BEATLES
Surmounting the aftermath

Reviewed by NOEL COPPAGE

We are still affected by the energy of stars that flared and died long ago. The speed at which light—information—travel is simply not great enough, given the distances involved, to keep us up to date: we're always perceiving what was. Another sort of lag—the one not in front of our perceptions but behind them—has us similarly affected, after the fact, by the Beatles. We are still reacting to Beatle Energy, and there . . . are . . . no . . . Beattles. Radio stations still have their "All-Beatle" weekends. Shops specializing in Beatle memorabilia are still opening up, after—how many years? The value placed on those Yellow Submarine drawings defies objective analysis beyond the conclusion that something happened that made waves that are still being felt. Headline writers consider it standard procedure, still, to put "Former Beatles" in front of any of those four names, and the rumors continue to go beyond the headlines, year after year, picked up and passed along with that hopeful-cynical, one-eye-brow-out-of-control look that's so useful these days. This last time the pushiest rumor of all—"Fab Four to Reunite!"—seems to have culminated in something less than the reopening of Camelot but in something, at least, something tangible: a Ringo Starr album called "Ringo" in which all four former Beatles perform, though not all at once, never four abreast. That isn't really the Beatles in that album, but Beatle Energy attends it, making it a carefully received, painstakingly examined, soberly evaluated social (and, of course, economic) event. The same goes, as it always does to some degree, for the new solo albums "Mind Games" by John, "Band on the Run" by Paul McCartney and, of course, even Yoko Ono's latest, "Feeling the Space," to be assessed just outside the distracting vortex of Beatle Energy.

Consider how they must feel: one does not ignore "that whole Beatle thing." One cannot say, "That's all in the past," because not all of it will get in the past and stay there. John may have tried to yank the Band-Aid of John and Yoko, and presumably is being read when more is known about that one way or the other—but this seems to be the place for information lugs of various sorts. John's new album is largely about Yoko, in any case. Her face is the mountain behind his image in the chintzy jacket photograph, and while there may have been some kidding in that, the songs are laced with phrases about how she "blew away life's misery" and how Liverpool and Tokyo got together and made east west and vice versa and how they share in each other's minds and how she's the honey and he's the bee and all he has to do is call her name and things clear right up, and on and on. There's nothing wrong with committing such sentiments to song, but the album is so redundant, so . . . hard-self. And predictable: the range of ideas in John's music seems to grow ever narrower. There's Yoko loved a thousand ways, and a play or two on words in this one, and, of course, politics. The album is beautifully produced, but the Plastic Ono Band, behind John, has evolved an increasingly stylized sound, and one not very far from the silvery-gritty aspect of the Beatles, at that. Nor did this project catch John in a mood to struggle anyone with melodies; I Know (I Know) has a fine one, and a few others are better than average, but the surge into composing that the first album ("Plastic Ono Band") seemed to promise has not come. "Mind Games" is pleasant, but the harder one listens, the less he hears.

The Plastic Ono Band behind Yoko is something else—versatile, expressive, reeling with ideas. Yoko herself is not versatile or expressive, but she does have ideas. One of her ideas in making "Feeling the Space," which is "dedicated to the sisters who died in pain and sorrow and those who are now in prisons and in mental hospitals for being unable to survive in a male society," was to show men, the rats, how it feels to be a sex object. One way of doing that was to close out the album with Men, Men, Men, which tells its object, "Your muscles are not for fighting in war/Your lips are not for voicing opinions/Your eyes were made for us to look into."

Another way was to include in the credits what Playboy would call "vital statistics," only they're for the males in the band. And did you know that drummer Jim Keltner has a 42-inch chest? That's not the half of it; he's a dazzling 42-

33-37. I hate him. This sort of thing could drive a fellow to one of those mental hospitals for being unable to survive in a male society. But let it be said that Yoko's album reads much worse than it sounds. She hasn't done anything special with melody, and what she's done with words is no more special than what they do with them on the walls of truck-stop restrooms, but some synergy does occur when she puts the two together. Her melodies are provocative enough to interest the band, and, male chauvinists that they are, the musicians apparently pursue that interest in their own way rather than looking to Yoko for definitive hand-and-arm signals. Don Brooks (who is Waylon Jennings'—got that?—Waylon Jennings' harp player) and David Spinozza interweave marvelous, ably smashing lines in If Only, a rather engaging and perplexing song in which Yoko's singing is a thousand million times worse than horrible plug-ugly. So it goes.

But Ringo, now, Ringo—ah, shucks, what can I tell you about Ringo? According to the write-ups, he is the most amiable human being in the history of the world. Paul, it was written, once told Ringo he would "get him—but there Paul is, and Linda too, helping Ringo sing Paul's Six O'Clock. True, Paul doesn't sing a high harmony part that would show off that fancy vocal range of his, and of course Paul isn't let in with the other former Beatles. Ringo, John, and George play together (although whether they recorded at the same time is another matter) in I'm the Greatest, written by John and written for, it seems, both Ringo and John. Elsewhere Ringo shares the honors with no more than one other ex-Beatle at a time. Harry Nilsson, Marc Bolan, most of The Band, and those fine examples of the Beatles' bench strength—Billy Preston, Klaus Voorman (who also contributes some fine lithographs for the lyric booklet), and Nicky Hopkins—were all brought in to help, for if there's one thing Richard Perry doesn't spare when he's producing an album it's expense. The album is cute, mainly. Some kind of chemistry that's all out of scale with the quality of the song itself does happen in I'm the Greatest, and George's guitar's seen catalytic there. Photograph, which the booklet says was written by George and Ringo, could have been in George's "All Things Must Pass" album and gone unnoticed by everyone—but here it stands out.

88 STEREO REVIEW
offering lyrical relief in an album that is just a bit smug about its rock-and-roll savvy. It is the kind of song that keeps AM radio from going down the tube altogether. Nilsson was somehow persuaded to exert himself on such an old featherweight as You’re Sixteen, and his assorted back-up voices do keep the thing from dying right on your living room rug. Step Lightly, a Ringo original, has some nice rhythmic things in it, but thirty seconds of it is about enough. The only other outstanding cuts are Six O’Clock and the closing You and Me (Babe), written by Harrison and Mal Evans, an old Beatle insider.

and given a voice-over treatment by Ringo in which he thanks all the musicians and says one of those prolonged, grand-ballroom goodnights. Six O’Clock is a quiet, vaguely blues-based tune about standards not met, and I suppose it is drawing the usual more-fluff-from-Paul comments in the usual places, but it’s a song one can stand to listen to repeatedly, and more than likely with increasing respect. In general, “Ringo” is better off being cute than what else might have happened to it—it has some intellectual tooth-marks, expertly contrived “nostalgia licks” and such—and it probably comes out as well as it does because Ringo’s likable nature can match Perry’s production shuffle for swagger.

Ringo seems destined to land on his feet—if the Great Purge comes and they’re getting rid of “poor” singers, they’ll vote a special exception so Ringo can stay—but of course Ringo in a mano a mano showdown with Paul Simon or someone for the troubadour championship of the universe would be overmatched. So would John and so would George, the way things are going.

Paul McCartney, though, is showing signs of snapping out of it. Right now he seems the ex-Beatle most likely to become an ex-ex-Beatle, to surmount the aftermath. Paul not only has much greater vocal range (and to my ears a more pleasant sound) than the others but is turning out to have rangier (and to my ears a more pleasant sound) than Paul not only has much greater vocal range signs of snapping out of it. Right now he is repeating, and more than likely with increasing respect, what former Beatle has this loss-of-mother pain to the degree that he underwent “primal scream” therapy and then wrote a raw, agonized song called Mother—and wrote another song that was kind of nasty and addressed to Paul?

And yet, if Paul is answering, he is not being openly malicious. Jet makes no sense, at any kind of literal reading, but it has wonderful tunes and is grandly arranged. Mrs. Vandebilt is another fascinating song, which might be a superb album if Let Me Roll It didn’t sound so tired, Bluebird weren’t so off so effete and aimless, and Helen Wheels did not exist. Songs aren’t necessarily related to one another, or don’t seem to be, but the album does have some funky application of the sonata form (or at least the Side-Two-of-“Abbey Road” form) punched into it, and there are all these sneaky little references scattered throughout, so that one (not the only one, of course, but one) way it can be interpreted is as an attempt to put the Beatles behind him, get the Beatles off his back, bury the Beatles.

It is subtler and less direct than John’s attempt has been, to be sure, so subtle that Paul may not be doing it consciously at all. Possibly he isn’t doing it at all. But there are little things—what does “stuck in the title song really mean? And what about Jet? Very puzzling, this Jet; there’s something about a sergeant major, a lady suffragette, and a line that goes, “Ah, Mater, want Jet to always love me,” which of course sounds as if he’s saying “Want ya to always love me.” Question: what former Beatle has this loss-of-mother pain to the degree that he underwent “primal scream” therapy and then wrote a raw, agonized song called Mother—and wrote another song that was kind of nasty and addressed to Paul?

And yet, if Paul is answering, he is not being openly malicious. Jet makes no sense at all in any kind of literal reading, but it has wonderful tunes and is grandly arranged. Mrs. Vandebilt is another fascinating song, at least in its tricky changes and its double-think resolution: “What’s the use of worrying? What’s the use of hurrying? What’s the use of anything?” There are nice rhythms, Latin and otherwise, scattered about in the album (which was recorded in Nigeria), a curious tribute to Picasso with a snippet from Jet spliced into it and more reprises in the last few seconds of the last selection. That doesn’t seem to bother anyone—no identity crises—and it doesn’t bother me either. John’s new album is infinitely more conservative than Paul’s is, and, naturally, Paul’s is somewhat more uneven than John’s is. Smarter people may find God knows what in Paul’s cogey revelations, but ambiguity, for all its usefulness, is also a hedge. Paul is moving toward individuality, but whether he’s jetting or mostly drifting is not all that clear to me. It is a difficult direction to take, Paul, considering the negative pull (on former Beatles, that is) of that black hole where the supernova of the Sixties was.

And now isn’t. There are no Beatles. Long live the Beatles.

JOHN LENNON: Mind Games. John Lennon (vocals); Ken Ascher (keyboards); David Spinozza (guitar); Gordon Edwards (bass); Jim Keltner (drums); other musicians. Mind Games; Tichi A; Atumaenae; One Day (At a Time); Bring On the Lucie (Freda Peple); Intuition; Out the Blue; Only People; I Know (I Know); You Are Here. Meat City. apple sw-3413 $5.98, o 8xw-3414 $6.98.

YOKO ONO: Feeling the Space. Yoko Ono (vocals); David Spinozza (guitar); Jim Keltner (drums); Ken Ascher (keyboards); Gordon Edwards (bass); other musicians. Growing Pain: Yellow Girl (Stand By for Life); Coffin Car; Women of Salem; Run; Rock Run; If Only; A Thousand Times Yes; Straight Talk; Angry Young Woman; She Hits Back; Women Power; Men, Men, Men. Apple sw-3412 $5.98, o 8xw-3412 $6.98.

RINGO STARR: Ringo. Ringo Starr (vocals, drums); John Lennon (vocals, piano); George Harrison (vocals, guitar); Paul McCartney (vocals, mouth sax); Klaus Voormann (bass); Jim Keltner (drums); Robbie Robertson (guitar); other musicians. I’m the Greatest; Hold On: Photograph; Sunshine Life for Me (Sail Away Richard); You’re Sixteen; Oh My My; Step Lightly; Six O’Clock; Devil Woman; You and Me (Babe). Apple swal-3413 $5.98, o 8xw-3413 6.98, o 8xw-3413 6.98.

PAUL McCARTNEY: Band on the Run. Paul McCartney (vocals, bass, guitar, keyboard); Denny Laine, Linda McCartney, and Wings (vocals and instruments). Band on the Run; Jet; Bluebird; Mrs. Vandebilt; Let Me Roll It; Mamuma; No Words; Helen Wheels; Picasso’s Last Words (Drink to Me); Nineteen Hundred and Eighty-Five. Apple soy-3415 $5.98, o 8xw-3415 $6.98, o 4xw-3415 $6.98.
Enclosure: Oiled walnut airtight cabinet having a volume of approximately 2.5 cu. ft.

Contour control with four distinct settings permits precise acoustic matching of the WDDS-12 to the acoustic requirements of almost any listening room.

Angled dome tweeters generate a uniform sound field over 120° dispersion. Location of all drivers in the same curved plane, creates a Wide Dispersion Discrete Source (WDDS), vital for realistic stereo location and making the most of the speaker's outstanding transient response. WDDS avoids spurious sound scatter and infuses the sound field into the listening room in a pattern virtually analogous to that of a stage or auditorium performance. As a result, the listener remains unaware of the speaker — the music seems "simply there."

Heavy 12-inch acoustic-suspension woofer with massive magnet and low-resonance cone produces powerful true bass to the very lowest regions of musical sound.

1½-inch Mylar dome tweeter projects uppermost highs with exceptional clarity over broad arc, resulting in "open" sound with near true stereo space image.

1½-inch Mylar dome tweeter smooth frequency transition into midrange while providing wide dispersion and crisp transients in the crucial "presence range.

SPECIFICATIONS

WDDS-12

NOMINAL IMPEDANCE: 6 ohms

LOW FREQUENCY DRIVER: 12" high compliance, heavy duty.

HIGH FREQUENCY DRIVERS: Two 1½" dome radiators and two 3/4" dome radiators.

CROSSOVER FREQUENCY: Crossover takes place gradually between 600Hz and 5KHz.

DISPERSION: Frequency Response varies by no more than 3db from the "on axis" response over a 120° lateral field.

GUARANTEE: 5 years, as detailed in our guarantee form.

All service to be carried out by authorized dealer or agent, eliminating need to return speaker to factory.

PRICE: $350.00

Woofer response, on and off axis, shows effective output below 30Hz, reaching the lowest range of musical sound.

Tweeter response curves on and off axis almost coincide, proving uniformity of sound spread in listening space.

Supertweeter response curves off axis also closely parallel on axis response, showing superior sound dispersion.

Woofer tone burst at 45Hz and supertweeter tone burst at 16 and 4 kHz attest remarkable clarity of transients throughout audible spectrum.
Introducing the WDDS-12 Pritchard Loudspeaker System

More confusion?

There are literally hundreds of speakers on the market. There are 2-way systems, 3-way systems, omnidirectional, rearward sound projection, et al. All, according to their makers, are outstanding. And, frankly, several are.

Small wonder the public is confused. And good reason why serious listeners rely on expert opinions, as well as recommendations from knowledgeable equipment owners.

Our new Pritchard system will surely add to the confusion. And our claims will fall, unfortunately, on many deaf ears.

But among those people who, over the years, have learned to separate fact from fiction...who trust their own ears...and who respect "inside" opinions, this new speaker will be a revelation.

If you're a serious listener, unfamiliar with ADC speakers, we urge you to talk to people familiar with our products. They know that, among the relatively few outstanding speaker systems on the market, ADC's line ranks among the best.

And, now, with the introduction of the Pritchard System, ADC's probably number one!

For most, the confusion about speakers will continue. For some, the WDDS-12 Pritchard System will shout "hello."

ADC speakers -the insider's choice.

AUDIO DYNAMICS CORPORATION, Pickett District Road, New Milford, Conn. 06776
crowd the way Harry romanticizes the more spectacularly grotesque idiots among us. Bernie takes us into the mind of a tired sort of person—tragi-comic. And Harry Chapin, with Lou Reed taking a tennis match between Bernie Taupin and Hugh Lockie, with I Lou were taking—

...and we're playing—

PROBABLY aummy Monroe as a "real" but tragically misunderstood person, as trite and banal as the world for a woman like you. And so on. We'll probably settle once and for all who is the most "unorthodox" bubblegum lyricist by having a tennis match between Bernie Taupin and Hugh Lockie, with I Lou were taking—

...and the music, Nigel Olsson contrives to bang as hard as he can, at times, because he made sure his piano and vocals were clearly heard, and both are striking in their subtlety, their stylish economy. One such number is 'I've Seen That Movie, Too.'

...and there is an overlay of sheer noise seems to have been added to the basic arrangement just for the hell of it. There are a few places, though, where Elton makes sure his piano and vocals are clearly heard, and both are striking in their subtlety, their stylish economy. One such place is 'I've Seen That Movie, Too.' The album has some good music on it, enough perhaps for a fairly decent one-disc album. It is, of course, a two-disc album. N.C.

MORGANA KING: New Beginnings. Morgana King (vocals); orchestra. Jennifer Had; All in All; A Song for You; We Could Be Friends; and five others. PARAMOUNT PAS-6067 $5.98, © 41091-6067 $6.98. Performance: Highly styled Recording: Frilly

What turns me off Morgana King is probably what turns me off Chris Connor: they both let their styles intrude on everything they perform— to the point—of preciousness. Both are real musicians, each has a devoted cult audience, and neither has had broad success on recordings. Now Miss King is back, probably propelled by her success in the role of Mama Cass Elliot in The Monkees (although all references to the last sentence of that are omitted in the liner notes), bringing us another collection of mannered—

...and note by note, you can just about perceive precisely how glad I am that I gave up cigarettes. The production, by Vince Mauro, is as dimly lighted as an aging beauty's bedroom and every bit as elaborate. P.R.

THE KINNS: Preservation Act I (see Best of the Month, page 81)

KRIS KRISTOFFERSON AND RITA COOLIDGE: Full Moon. Kris Kristofferson (vocals); Rita Coolidge (vocals); Donnie Fritts (organ); Terry Paul (bass); Lee Sklar (bass); David Bromberg (guitar); Vassar Clements (fiddle); Josh Graves (dobro); other musicians. Hard to Be Friends; It's All Over (All Over Again); I Never Had It So Good; From the Bottle to the Bottom; and eight others. A&M SP-4403 $5.98.

Performance: Real pretty Recording: Excellent

It isn't a case of Rita helping Kris, as some might expect in this case-hardened Man's World of ours, but a matter of Kris doing the helping. It's mostly Ritz's album, a result in part of a decision forced by simple mechanics: it seems their best records aren't quite an octave apart, so Kris' best key for a given song is not the same as Ritz's best key. In a situation like that, you shoot your best stick (or producer David Anderle does, anyway) and tune to the better singer of the two. Rita sounds almost as beautiful as she looks, too, in fact, that the album is mighty ingratiating for some of the uptight, soft country ballads from various sources—the kind whose unfolding, line by line and note by note, you can just about perceive precisely how glad I am that I gave up cigarettes. The production, by Vince Mauro, is as dimly lighted as an aging beauty's bedroom and every bit as elaborate. P.R.

LaBELLE: Pressure Cookin'. LaBelle (vocals); instrumental accompaniment. Pressure Cookin'; Can I Speak to You Before You Go to Hollywood?; Tell Me What You Want; Let Me See You in the Light; Last Dance; and three others. RCA APL-1-0205 $5.98, © APS-1-0205 $6.95, © APK-1-0205 $6.95. Performance: Very good Recording: Excellent

LaBelle is a female vocalist trio named after lead singer Patti LaBelle, who in the early sixties led a group called Patti LaBelle & The Bluebells. Their best-known single was Through the Years, in which LaBelle dispelled her remarkable vocal range and technical powers. The lady has lost none of that with time: if anything, she's improved. During one song on this album I thought she sounded like Aretha Franklin, but it's just possible, considering their careers chronologically, that Aretha Franklin sounds like LaBelle, especially when the modulated yips and whoops they tack onto the end of a lyric line.

As a group, LaBelle has been around for a few years and is gathering a faithful following in the New York area. It has a stage act that is probably equal to that of any major girl-group or any major rock group of the last decade. LaBelle hasn't had a hit record yet, but that doesn't mean it won't. I'm not terribly impressed by the material on this record, but the production and sound are first-rate and the group is in fine form. If you've not heard Patti LaBelle before or recently, I suggest you avail yourself of this album. So-so material or not, she has a marvelous voice and knows how to use it. J.V.

JAMES LAST: M.O.R. James Last. Chorus and orchestra. James Last arr. and cond. Interlude Feel Alright; If You Could Read My Mind; Jenny Jenny; Killing Me Softly with His Song; Delta Queen; I'm Just a Singer; Walk on Water; and five others. POLYDOR PD 5538 $5.98, © SF 5538 $6.98, © CF 5538 $6.98. Performance: Mediocrity rampant Recording: Fair

A printed blurb that fell out of this album, containing the declaration that "throughout Europe, 'Last Is First,' is the only one that "have to the background of the gentleman who perpetrated it. The "M.O.R." in the title, however, stands for "Middle of the Road," and what James Last does is to take rock and roll, add space and strings on top of it, making it suitable for piping through the sound system of an old-age home.

Not that Mr. Last is looking to compete with the sound of 101 Strings! On the contrary, his arrangements are imbued with a peculiar raggedness and given over to the vocal harmonizations of a chorus of adolescents who must twitter hard and long to achieve the semblance of demented banality that made his previous album, "Non-Stop Dancing," such a spectacular success (even though I can't seem to find anyone who ever heard of it). Whether Last's carefully coached chorus and orchestra (Continued on page 94)
The Realistic QTA-751 is the kind of 4-channel receiver that has a future! Available exclusively at Radio Shack.

4-Channel Everything
Here's what we mean by a receiver with a "future": Aux 4 inputs for discrete 4-channel tapes. SQ decoder for matrixed LP's, tape & FM. Built-in Quatavox™ synthesizer for 4-channel realism from any stereo source. And a detector output jack for a discrete 4-channel FM adapter when the FCC says "Go".

And Stereo "Two"
Using the four aux inputs, and remote speakers, you can play two different stereo sources in two different rooms at the same time. It's like having two stereo systems in one!

No-Skimp Circuitry
FET-FM tuner, with ceramic IF filter, gives 3.3 µV sensitivity and high selectivity. Wideband AM. OTL audio for 20-20,000 Hz ±1 dB power bandwidth.

Perfect Loudness™ for proper bass-to-treble balance at any listening level. Dual FM & AM tuning meters. Power: 100 watts ±1 dB, 80 IHF, 60 RMS.

Controls for Everything
17 in all, including Glide-Path™ sliding controls for volume settings you can see and feel. Front and rear balance. Pushbuttons for tape monitoring, loudness, front and rear speakers, mono. Clutched bass and treble for separate front and rear adjustment. 4-channel headphone jacks.

Value-Wrapped Beauty
Gold-color brushed aluminum front panel. Edge-lighted linear dial. Glowing yellow dial pointer. Plus an oiled walnut veneer enclosure at no extra cost! The QTA-751 is the 4-channel receiver you can afford to live with. Forever.

Come in for a demonstration.

Now Playing at Over 2000 Stores in ALL 50 States $299.95

FREE 1974 CATALOG
AT YOUR NEARBY STORE OR MAIL THIS COUPON
180 Pages . . . Full Color! Hi-Fi, CB, Kits, Recorders, Antennas, Parts, More!

Name ___________________________ Apt. # __________
Street ____________________________
City __________________ State ______ ZIP ______

Complete 4-Channel System Featuring QTA-751

Four Realistic Minimus-2 Speakers, Reg. $49.95 Each

LAB-12B Turntable with Base, $12.95 Mag. Cartridge, Reg. $49.95

Price may vary at individual stores

REALISTIC
by Radio Shack

and ALLIED RADIO STORES
616 TANDY CORPORATION COMPANY
P.O. Box 1052, Fort Worth, Texas 76107

CIRCLE NO. 39 ON READER SERVICE CARD
SUPPORT BLOSSOM DEARIE!

Rex Reed is delighted to review her flawless new album

Alot has been written by the cultured and the wise about the delicacy and freshness of Blossom Dearie's singing, about how her light, polite voice can caress the lyrics of the very best songs about her unflagging good taste, and about the legion of admirers she has developed through the years in the intimate jazz rooms and supper clubs her hip musicianship has graced, admirers who come from far and wide to hear real music instead of noise. But too little has been conveyed, I'm sorry to say, of just what a swingine' dame she is. Nestling beneath that daffodil hair bobbing just above eye level at the grand piano is a worldly-wise Lorelei ready to lure us all to destruction. When she sings, the songs are literate and sophisticated and always laced with joyous good humor. But there's another and more curious, an otherworldly rhythm. It's not the music of the man in the toga, but the music of the man in the toga minus the toga. It is bracing as well as stimulating. With Johnny Mercer, she tells in I'm Shadowing You of a love even J. Edgar Hoover couldn't break up. With Bill Anthony (Home) she lights a flame in the heart that will not go out. And in Baby You're My Kind she brings home the bacon with the best of the blues wailers. Blossom Dearie's music doesn't hate anyone. It is created specifically to charm and to chill, and all her songs are stories told with sympathy and understanding. Her writing cannot be crammed into conventional phrase lengths and patterns, yet her rhythms are so natural and flowing that you are never aware of the oddly measured periods, phrases, and cadences, only of how 'easy' it sounds. Blossom Dearie is one of the all-time great singers and composers of popular music, and this is one of her most agreeable albums. I'm not in a very elated state about today's music, but this record has filled me with delight, enthusiasm, and ecstasy. It is simply flawless.

BLOSSOM DEARIE: Blossom Dearie Sings. Blossom Dearie (vocals, keyboards); instrumental accompaniment. I'm Shadowing You; Sunday Afternoon; Home; Hey John; You Have Lived in Autumn; Baby You're My Kind; and four others. DAFFODIL RECORDS BMD 101 $5.98.

are turning Killing Me Softly with His Song into a vehicle suitable for the Mormon Tabernacle Choir or further prettifying the already unbearably pretty tints of Delta Queen, the natural flow of everytine from Neil Diamond's Walk on Water to Ave Maria has been removed and the musical equivalent of sodium glutamate substituted to preserve the mixture. Middle of the road or not, I suppose there must be an audience for all this, but I don't want to be in it.

RECORDING OF SPECIAL MERIT

DAVE MASON: It's Like You Never Left. Dave Mason (vocals, guitar); Jim Keltner (drums); Mark Jordan (keyboards); other musicians. Baby . . . Please: Every Woman: If You've Got Love, Maybe: Head Keeper: Misty Morning Stranger: and three others. COLUMBIA KC 31721 $5.98, CA 31721 $6.98, CT 31721 $6.98.

Performance: Great, perhaps
Recording: Excellent

Well . . . the jacket has this back-lighted photograph of Dave Mason playing a fancy guitar, the thing one really notices being his right forearm — which looks mightily like the right forearm. Even has that little extra curve on the top, which in my case resulted from endless summers of "turning the ball over," trying to throw a screwball. Now, I don't know why I never paid any particular attention to this swell musician and wonderful human being before, but it is obvious that Dave's technical skill blah blah blah, sensitivity blah blah, depth of insight blah . . . The point of this, for those who must have points in these things, is that objectivity, if it exists at all, can be shattered by the damnedest things.

I still think it is fair for me, even me, to say that this is Mason's best work since he left Traffic and probably his best work on record. One may not find any cosmic answers or even very substantive questions in the lyrics, but they won't embarrass anybody, and the melodies are better than average. Mason's vocals are not distinctive, but they're smooth and competent. If we stopped there the album would be listenable and mildly pleasurable, and only slightly more so when we allow for Graham Nash's harmony vocals on three songs—but stopping there would leave out the best part: Dave's guitar playing. It's clean, so clean and smooth that nobody will mind his borrowing a lick from Harrison or Clapton or somebody new and then. The acoustic picking, especially, in such cats as Maybe and Silent Partner, is just elegant, just elegant. It's that extra little curve, you see, on the top of the forearm that does the trick.

MARIA MULDAUR. Maria Muldaur (vocals); orchestra. An Old Time: Mad Mad Me. The Work Song: Three Dollar Bill: Long Hard Climb: and six others. REPRISE MS 2148 $5.98.

Performance: Good
Recording: Good

Maria Muldaur, late of Kasekin's Jug Band and late of two very good albums with her husband Geoff, makes her solo bow on an album that never seems to make up its mind. Her previous work has always been eclectic in style and performance, but here it becomes unconfused and jumbled. She is very talented, strikingly so in such comedy songs as Don't (Continued on page 96)
THE UNDRESSED KLIPSCHORN® Loudspeaker System
SAVES YOU $350

Stripped to essentials, the style "D"* KLIPSCHORN loudspeaker has sound reproducing components identical with those in the fully dressed style "B." Permits you to create your own cover-up or to leave it in the altogether. Lets you put your money into quality reproduction of sound; not cosmetics. You may order it in fir plywood, unfinished, or painted flat black.

These prices for contiguous U.S.A. only. Higher in Alaska, Hawaii, and foreign countries.

But, if cabinetry is not your forte, save $265 on unfinished style "C"** Supplied with top and grills, it is made of birch veneered plywood. You can stain it, apply an antique finish, or leave it natural.

Send this coupon for information on all Klipsch loudspeakers.

Klipsch and Associates, Inc.
P.O. Box 688
Hope, Arkansas 71801

Please send me your latest brochure and list of dealers.

Name__________________________Address__________________________
City__________________________State__________________________Zip________________

*C-D-FR or K-D-FB
**K-C-FR or K-C-FB

CIRCLE NO. 24 ON READER SERVICE CARD
HELEN REDDY: Long Hard Climb. Helen Reddy (vocals); orchestra. Lovin' You; Long Hard Climb; The Old Fashioned Way; Delta Dawn: The West Wind Circus; and five others. CAPITOL. SMAS-11213 $5.98, © 8XW-11213 $6.98, © 4XW-11213 $6.98.

Performance: Upbeat
Recording: Excellent

Helen Reddy's work here is relentlessly jaunty. Even Buffy Saint-Marie's poignant classic Until It's Time for You to Go (done here with a solo piano accompaniment that at first thought was a put-on or a Hildegarde imitation) and Long Hard Climb, all about the travails of "making it," are sung directly and strictly on beat with an undertone of boom-dee-dee. It all works just fine on Leave Me Alone or The Old Fashioned Way, and Reddy songs into the program, I might not be here now at all. There are a few other trifles that might bug me: Linda's interpretation of one of my favorites, Randy Newman's Sail Away, is clipped and lacking in irony, and I'm still not very impressed with Rick Roberts' Colorado, no matter how it's sung. The Newman song, though, is hurt by an approach that helps most material, and I'm fair to all the album. Linda's tendency to always being her with a country tune like the classic Silver Threads and Golden Needles—is to underplay the drama of a song. This not only gets around the pomposity of forced dramatics that�s built into many songs, it not only creates a subtler, more effective kind of drama, but it allows her to pay more attention to her phrasing, which is simply delicious. Silver Threads establishes that, if she declared herself a full-fledged country singer, Linda would be one of the best. The other really outstanding cuts are of Eric Kaz and Libby Titus' Love Has No Pride and, particularly, Neil Young's I Believe in You. There are no very weak cuts, except for the cold ones (mostly liverwurst) I toss to the cat to get him to keep cracking the phonograph so I can hear the record again.

N.C.

SPENCER DAVIS GROUP: Gluggo. Spencer Davis Group (vocals and instruments). Catch You on the Re-bop; Don't Let It Bring You Down; Awesome Tomorrow; Tobacco Road are examples. Another example is Spencer Davis, whose 1965 hit Gimme Some Lovin' was the heavy, hearty, big, and bouncy. Davis disappeared for a while and his group splintered (Stevie Winwood left to join Traffic). He turned to acoustic music for three years, but he has now re-formed most of his old group and the result is that he sounds as good as ever.

"Gluggo," the album, is happy, loose, thoroughly professional, and a lot of fun. There is a perfectly acceptable version of the old blues Trouble in Mind, a Nashville-style twanger, Legal Eagle Shuffle (about divorce, which, with tita, I'm not a fan at the rest of the pop-country song), and an instrumental, Today Gluggo. Tomorrow the World. But more typical of the Sixties Davis sound, with its dead-on drumming, sprawling organ playing, and other studio tricks, are Catch You on the Re-bop, Mr. Operator, and Trouble Dawn Tenement Row.

Gluggo, the thiege, is never defined, but it is apparently something between a detergent and an aphrodisiac. The album packaging is a mixture of subway-type advertisements with "unsolicited personal testimonials" and "Out of 10 Doctors . . ." come-ons. As album and thingie, "Gluggo" is great fun. It's good to have Spencer Davis back, undiluted and unbowed. J.V.
Scott challenges you to find another speaker system in this magazine which offers the value of the Scott S-71.

There are many three-way acoustic suspension speaker systems on the market which, like our S-71, have 12" woofers and advanced design tweeters and cover the full audio frequency range. Five of these produce clean, uncolored sound free from audible distortion even at high listening levels. They, like our S-71, come in tastefully designed walnut cabinets and fit on bookshelves. They are made by respected manufacturers and widely advertised.

Where our S-71 separates itself from these competitors is in the value you receive for the price you pay. The speakers which compete in quality with the S-71 are priced at $285, $199, $273, $199, and $299 respectively. We sell our S-71 for $189.95.

Ask your Scott dealer to play some music with which you are familiar through our S-71 speakers using the best electronics he has available. Then, after you’ve listened awhile, ask him to play the same material through any other speakers advertised in this magazine (or any others, for that matter). We believe you’ll find the Scott S-71 offers you the greatest value for the price of any of those advertised. To take up our challenge, circle reader service for full product information and the name of your local Scott dealer.
THE WAILERS
Making Jamaican reggae more accessible
Reviewed by Gary Kenton

Ever since those pictures of four long-haired musicians from Liverpool first appeared in the mass media, at least one part of the audience has reacted by, shall we say, freaking out. Of course, long hair has long since ceased to be offensive to the majority of record buyers, but our new, cleverer, rock idols have found newer, cleverer, ways to disgust, disgruntle, and dismay. And don't think that's easy: after Alice Cooper has axed babies in front of you, been guillotined above you, spit beer on you (Budweiser, no less), and sold millions of records behind your back, it should take something like a half-ion crate just to raise your eyebrows.

It kind of stands to reason that there'd be some sort of backlash. Unless we're going to start featuring real live kamikaze pilots in our rock shows for some thrills, or give up altogether and listen to the Carpenters, there's going to have to be a new musical development with some kind of value beyond that of pure shock. And there is. It's called reggae.

Which is not to say that reggae won't knock you out—it just won't do it in one K.O. punch. It gets to you in pokes and jabs, content to win you over by a decision. Many have to be exposed to reggae live, however, before it really gets under their skin, for it is a raw, multi-rhythmed music which cannot content to win you over by a decision. Many have to be exposed to reggae live, however, before it really gets under their skin, for it is a raw, multi-rhythmed music which cannot

Reggae music is not simple to classify exactly; it is an organic admixture of rock, soul, and African tribal music. If you know what calypso sounds like you have an inkling—reggae is to Jamaica as calypso is to Trinidad—but reggae's roots are as firmly fixed in the sounds of Fats Domino, Smiley Lewis, and Amos Milburn as they are in the native sounds of the West Indies. Paul McCartney, one of the many rock recording artists to be attracted to the studios in Kingston (others include Paul Simon, the Rolling Stones, Johnny Nash, and Cat Stevens) explains reggae as a mutation of the Fifties rock-and-roll that Jackies picked up on the radio. However it began, reggae has become the absolute pulse beat of Jamaica, and has begun to conquer other lands as well: reggae records sell quite respectably in England, and the U.S. finally seems to be on the verge of accepting it to some degree.

So far, reggae (or "skat" or "rock steady" or "bluebeat" as it is also called) has had too little exposure here, however, to catch on in a big way. Although a few years ago there was a U.S. reggae hit (Israelites) by Desmond Dekker and the Acces that was popular despite its irregular beat and the fact that no one knew what on earth the song was about. Dekker is still a large figure in the booming Jamaican music scene, along with a host of other artists including Toots and the Maytals, Jimmy Cliff (star of the first large-scale Jamaican movie production, The Harder They Come), the Melodians, Big Youth, Joe Higgs, and my personal favorite, the Wailers. Bob Marley, acknowledged leader of the Wailers, has written one of the few reggae songs you possibly have heard (Stir It Up, a single by Johnny Nash, which was a moderately successful follow-up to his reggae-influenced hit I Can See Clearly Now), and he could emerge as the poet laureate of Jamaica—he has already been tagged as "the first genius of reggae" by England's Melody Maker magazine.

But there is a definite cultural gap facing Marley & Co. in their quest for general acceptance in the States. The Wailers are Rastafarians (briefly, as I understand it, Rastafarianism is a brotherhood based on the tenets of Marcus Garvey, a Jamaican evangelist of the Thirties, who preached that all black men are lost tribesmen of Africa and the goal of all exiled black brothers should be to return to their Mount Zion and join their African ancestors), and they have their own way of doing things, right down to their own dialect. Would-be interviewers who have gone to see them in Boston, New York, and Los Angeles have found it difficult to understand any two consecutive words, and invariably walk away scratching their heads, wondering what they're going to make up for their interviews. Not so good for publicity.

Another example of the type of obstacle keeping American record buyers and the Wailers from getting together: just before their first U.S. tour, one member of the six-man group, Bunny L. Livingston, decided he didn't want any part of it. It seems that the group was warned about some of the, er... strange sights that might await them in America, especially since they were booked to play at Max's Kansas City, New York's den of homosexual depravity. The Wailers could not be surprised if they saw some fine examples of young American manhood parading around in women's clothes and makeup. "Oh no," Bunny said. "Bunny no go where man wear frock." He stayed home in Jamaica.

But all language and cultural barriers melt away when you hear the Wailers wail. Although their records are a pale approximation of their concert performances, their new album, "Burnin'," is a giant step forward in terms of accessibility. It won't be the last protest song went out and bought himself an electric guitar. The second gem, Small Axe, is a perfect example of Marley's mixing Biblical wisdom with stoned Rastafarian morality. Both songs have melodies that will stick like glue both to your tongue and to your psyche, as do most of the Wailers' compositions.

I t is doubtful, given the subtlety of their music and the intensity of their message, that the Wailers will become an overnight sensation here, at least not right away. After all, reggae sings out the heart and soul of an island and its people; it is not merely an innocent form of entertainment between cocktail parties for them, and it is impossible to expect most Americans, who ignore their own ghettoes so blatantly, to be attuned to the plight of artists living in ghettos elsewhere. But the Wailers—and reggae—will catch on eventually. Questions of sociology aside, reggae is just about the best musical medicine for rock culture shock on the market today.

THE WAILERS: Burnin'. The Wailers (vocals and instruments). Get Up, Stand Up; Small Axe; I Shot the Sheriff; Rasta Man; Pass It On; One More Night; Conqueror; Pass It On. Island SMAS 9338 $5.98, 88XW 9338 $6.98.
In Quest of Perfection...

"Jonathan Livingston Seagull" is a story about striving, struggling, soaring in quest of perfection.

In the film adaptation of the best selling book, "Jonathan Livingston Seagull," the spirit of the quest is captured in a moving original music score composed and performed by Neil Diamond.*

Transforming the celebrated book into an unique motion picture was a monumental task that demanded the finest cinematography and music reproduction modern technology could produce. So Neil Diamond selected BOSE 901® Speakers to reproduce his music for the press premières of "Seagull," commenting: "After auditioning what were reputed to be the best high fidelity speakers on the market today, I chose BOSE 901 Speakers because they offer the ultimate in theatre music reproduction." This is no surprise to thousands of 901 owners around the world who believe they enjoy the ultimate in music reproduction in their homes.

In our ever-continuing quest of audible perfection, we developed the new BOSE 901 SERIES II Speakers -- a product of over 15 years of research in musical acoustics. We invite you to compare the BOSE 901 SERIES II with any speaker on the market today. Judge for yourself if you agree with Neil Diamond's selection and with the critical acclaim the original 901 received from professional music and equipment critics.

For information on the BOSE 901 SERIES II, complimentary copies of the rave reviews on the original 901, and a report on the theatre sound system competition, circle your reader service card or write Dept. S 1.

*Original motion picture soundtrack recording available on Columbia records and tapes.

+CIRCLE NO. 10 ON READER SERVICE CARD
JAZZ

DUKE ELLINGTON: Yale Concert. Duke Ellington and His Orchestra. A Chromatic Love Affair; Draw: Up; Jump; Pastina; Salome; and four others. Fantasy 9433 $4.98.

Performance: Dukishly good
Recording: Excellent

Here's another superb Ellington concert recording, this time from a January 1968 appearance at Yale University's Woolsey Hall. What makes this a particularly interesting set is the inclusion of material that has not previously appeared on records. There's even a spurs-of-the-moment version of that old Yale favorite Boodle Boodle. There's not a bad track in the lot, and Duke's witty commentary helps keep things moving along; his introduction to the two-part The Little Purple Flower could stand by itself. There are fine solos by Paul Gonsalves, Cootie Williams, Johnny Hodges, Cat Anderson, and Russell Procope, who provides one of the highlights, playing clarinet in the New Orleans tradition on a Monche-ish Ellington opus entitled Swamp Goo. It is easy to see why the world loves Duke madly, but I would like to see some celebration of the men who form the backbone of his success. Will Dick Cavett ever play host to Harry Carney or the all-but-forgotten Sonny Greer?
C.A.

DILL JONES: Davenport Blues. Dill Jones (piano). In a Mist; Candlelights; Flashes; In the Dark; Davenport Blues; Big Boy; From Monday On; I'd Climb the Highest Mountain; and four others. Chiaoscuro CR 112 $5.98.

Performance: Disappointing
Recording: Very good

Here is a project that is long overdue: a recording of the four extant notated Bix Beiderbecke piano compositions. Bix was one of the two great horn men of classic jazz, the other being Armstrong. Toward the end of his life, he found jazz insufficient for the new direction of his compositional talents and he turned more to the piano. He spent a lot of time with Bill Challis, who had written special arrangements featuring Bix with the Paul Whiteman band, and Challis notated the pieces for him—since Bix always had trouble reading and writing music. In A Mist, Candlelights, Flashes, and In the Dark are all related. There are references from each to the others, and all are probably part of a larger, ambitious, but undefined piece that the ambiguous Bix was trying to write. Had he lived longer (he died in 1931, at twenty-eight) he might have gained more confidence and made more progress.

Bix recorded In a Mist in 1928, and it was his only unaccompanied piano recording. Like its fellows, In a Mist was harmonically advanced for its time; it was not jazz per se, but it contained jazz elements. It was romantic, with sentimental rather than melancholy passages, and—this is important, I think—Bix played it at the sprightly tempo that was his trademark.

DillJones' performances—the first time the four pieces have been recorded together—go in for interpretation rather than a literal rendering. His versions of the pieces are more introspective than they were written to be, though perhaps not more than they were intended to be. The result is that Jones slows the tempos to a crawl, or interrupts them (as in In a Mist) for "introspective" effect. It gets maddening after a while. Beiderbecke may have wanted to do various things with his piano music, and had he lived he might have done them, but I think it would have been better for this project to introduce the audience to what Beiderbecke did do and play the

MARIAN AND JIMMY McPARTLAND: Monticello. Jimmy McPartland (cornet); Marian McPartland (piano); others. I'm Gonna Sit Right Down and Write Myself a Letter; Avalon; Basin Street Blues; and four others. Halcyon 9049 $4.98 (available from Morgon Records, Box 4255, Grand Central Station, New York, N.Y. 10017).

Performance: Pros meet locals
Recording: Very good

When Marian and Jimmy McPartland were married in 1945, many regarded them as an odd couple: a Chicago veteran who used to hang around with the likes of Bix Beiderbecke, and an English post-War bopper with a pop music background. The McPartlands, however, turned out to be quite compatible musically, for Marian, though generally pursuing a more modern path, is completely capable of romping stylistically into the past. She does so in this set, recorded in November 1972 at a Rochester, New York, concert that united the McPartlands (they divorced in 1968) and teamed them up with local talent.

The repertoire ranges from such standards of Jimmy's era as Royal Garden Blues and Wolverine Blues, played Dixieland style, to Willow Weep for Me and Ellington's Things Ain't What They Used to Be, played in more up-to-date fashion by Marian and a trio. The affair, held in something called the Monticello Room, was a happy one. The band plays well, there are good solos by clarinetist Jack Maheu, and flugelhorn player Sal Sparazzo does a noteworthy job on Wolverine Blues. Ms. McPartland chomps through the Dixieland stuff with the ease of a veteran, and Jimmy is as good as ever. These local bashes often turn out to be you-had-to-be-there events, but this is one that holds up nicely on disc.
C.A.

RECORDING OF SPECIAL MERIT

McCoy Tyner: Song of the New World. McCoy Tyner (piano, arr.): various orchestrations. William Fischer cond. Afro Blue: Song of the New World; The Divine Love; and two others. Milestone MSP 9049 $5.98, @ 9049 $6.95, 8 9049M $6.95.

Performance: The real McCoy
Recording: Excellent

This is quite a change from McCoy Tyner's last album on Blue Note; in fact, it represents a whole new sound for the former John Coltrane pianist. The result of two sessions featuring large orchestras made up of flutes with brass and strings, respectively, the album places Tyner's impressionistic piano playing in an enhancing frame and gives us a good demonstration of his arranging talent.

The scores through and through are a descendent of some of Cal Tjader's work, particularly the "Several Shades of Jade" album, but the similarity ends when Tyner takes over. Forceful and intensely rhythmic piano ripples cascade potently against choirs of brass and flutes, and play a rhythmic game of tag with Alphonze Mouzon's drums and Sonny Morgan's conga on Mongo Santamaria's Afro Blue—but the excitement does not end there. The remaining four tracks show that Tyner is not to be overlooked as a composer. Virgil Jones has a good trumpet solo on Little Brother and Sonny Fortune's flute gets a spot on Some Day, but it is Tyner who truly shines throughout. There seems to be no end to his development.
C.A.

(Continued on page 102)
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 turntables 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, Ill. 60204
In Canada: A. C. Simmonds & Sons Ltd.
CIRCLE NO. 46 ON READER SERVICE CARD
MOTHER MAYBELLE CARTER. Maybelle Carter (autoharp, guitar); Chuck Cochran (piano); Jim Colvard (guitar), Bob Moore (bass); Bobby Thompson (banjo); Charlie McCoy (harmonica); other musicians. Good Old Mountain Blue; Still; Arkansas Traveler; Black Mountain Rag; Waterloo; Wabash Cannonball; Rocky Top; Release Me; and eleven others. COLUMBIA KG 32426 two discs $6.98. © COLUMBIA 32436 $7.98.

Performance: Uneven
Recording: Adequate

Country instruments can become wearable on the listener, despite a foundation in instrumental music. country has evolved—and its melodies show it—by storytelling music, with the voice its most important element. A two-record set of country instruments is a bit much, no matter who the players are, and that's strike one against this album.

The autoharp is a quirky and charming backup instrument, an okay solo instrument on certain songs like The Helix of St. Mary, but it is not versatile enough, in the hands of any player I know, to be a solid lead instrument for song after song. That's strike two.

And now comes the high, hard one: Producer Larry Butler has either despaired of ever getting some of these tracks down right, or has concluded that sloppiness is charming—or both. Wildwood Flower, one of the few tunes for which Maybelle picks up the guitar, on which she developed the thumb-picking style still heard wherever folk singers congregate, is a disaster of bad timing, missed notes, and general shakiness—steel guitarist Pete Drake sounds absolutely lost in his break, and even the reliable Charlie McCoy sounds pretty worried. Several of the autoharp-led numbers are plagued by similar, though less blatant, unsteadiness. The half-worried look on my face just never changed some of his most fundamental songs, mean an indispensable acquisition.

RECORDING OF SPECIAL MERIT

CARL REINER AND MEL BROOKS: 2000 and Thirteen. Carl Reiner and Mel Brooks (comедians). Will to Live: Slow Growth. Natural Foods; Phil Asparagus; Origin of Words; Great Inventions; Strohberries; Miracle Fruits; The Greatest Invention; Ancient Poets; The Fig Leaf; Paul Revere; and eleven others. WARNER BROS. BS 2741 $5.98.

Performance: A welcome comeback
Recording: Very good

The "medically certified" bimillenarian who makes his long-awaited return engagement in this funny album first found his way to the nation's turntables in 1961, when straight-talking Reiner and funny-man Brooks (still speaking with traces of the Yiddish accent he acquired at the dawn of time) cut "2000 Years With Reiner and Brooks" for Capitol. They were back a year later with a sequel which suffered the falling-off in comic quality typical of sequels. The old man made a brief reappearance in 1963 in "Reiner and Brooks at the Cannes Film Festival," after which I assumed he had padded off to permanent occupancy of some ultra-old-age home. But he has turned up now in Warn Bros. Reiner, with a taste of his appearance, for collectors of comedy records, mean an indispensable acquisition.

Thirteen years older and not a whit wiser, the old man reports to interviewer Reiner on the results of his bicentennial checkup in Los Angeles by a geriatric specialist. The doctor has forbidden him to eat practically anything, with the result that he is living these days on "cool mountain water ten degrees below room temperature and a stuffed cabbage," not because cabbages are less dangerous than cholesterol-rich eggs or iodine-deadly fish or gas-producing fruit and vegetables, but because "I gotta eat something."

Although he has been around for so long and is more of a vulgarian than ever (don't look for sequels with two-thousand-and-thirteen-year-old men), our hero has not stagnated mentally, and in the past decade he has even changed some of his most fundamental ideas. His admiration for Saran Wrap, for example, which he formerly considered the greatest achievement of human ingenuity, has given way to a worship of the qualities of liquid Prell. Deodorant sprays dry his scorn: "There's a spray for everything and everybody smells like a strawberry." Only one factor in his long existence seems to remain constant: of his 42,000 children—two thousand of them doctors—not one comes to visit him. They don't know what they're missing.
Other fine turntables protect records.
Only PE also protects the stylus.

Some of the more expensive precision turntables stress their ability to protect records. Which is important. But this still leaves the problem of damage to the stylus. And even the finest tonearm can damage records if it plays them with a damaged stylus.

Among all the quality changers, only PE protects the stylus. For only PE has the fail-safe stylus protection system which prevents the tonearm from descending to the platter unless there's a record on it. It's simple, yet foolproof.

But this is not the only reason to buy a PE. For example, even the lowest-priced PE, the 3012, has many quality features associated with far more expensive turntables. These include: a variable speed control that lets you match record pitch to live instruments and compensate for off-pitch records; a cue control viscous-damped in both directions so the tone arm rises and descends with gentle smoothness; and a single-play spindle that rotates with the platter instead of sitting loosely in the shaft where it can bind and cause eccentric wear of the center hole.

For those who want additional refinements, there are two other PE models to choose from. The 3015 which has a rack-and-pinion counterbalance; anti-skating synchronized with tracking pressure; and a dynamically balanced non-ferrous platter. Or the 3060 which features a gimbal-mounted tonearm; synchronous motor; two-scale anti-skating; and vertical tracking angle adjustment.

High Fidelity magazine reported the 3060's "performance and features...rival those found in other automatics costing the same or even higher." And Stereo Review placed the 3060 "in the top rank of automatic turntables."

The best way to decide which PE model you want is to visit your PE dealer. But if you'd like to read our new brochure first, just circle the number at the bottom of the page.

Impro Industries, Inc., 120 Hartford Ave., Mount Vernon, New York 10553
CIRCLE NO. 55 ON READER SERVICE CARD

MARCH 1974
CHOOSEING SIDES
By IRVING KOLODIN

SCHUMANN AND THE SCHUMANNAESQUE

To paraphrase an aphorism of the late W. C. Fields, “A man who plays Schumann well cannot be all bad.” As there is scarcely any limit to the amount of performable Schumann, the proposition is, happily, an (almost) all-embracing one. It can take in a pianist whose only redeeming social value is the ability to play well the forty-two measures of Warum? as well as one who has mastered the fifty-four pages of the two editions of the Davidsbundlertänze. There is a vast range there, so vast that rather than being divisible into the mere three parts that sufficed Caesar for carving up all Gaul, Schumann’s piano music must be divided into four territories or domains.

There is, in the first instance, the Schumann Everybody Knows, those works that provide a common meeting ground for the nations as well as the sexes. I would cite as examples Carnaval (Sergei Rachmaninoff and Guismon Navae) or the Eintes Symphoniques (Percy Grainger and Claudio Arrau), the Fantasia, Opus 17 (Walter Gieseking and Edwin Fischer), Papillons (Eileen Joyce and Wilhelm Kempff), and even the Toccatatina a challenge for the forty fleet fingers of Simon Barere, Vladimir Horowitz, Sviatoslav Richter, and Josef Lhevinne.

Then there is the Schumann Somebody Knows, a delectable range of works that have profited from the specialized attention of particular pianists over the years, people who have invested a lifetime’s effort to producing the one, the insuperable rendition. I think of Kreisleriana, which Arrau recorded on five Columbia 78-rpm discs in the Forties and has recently re-recorded for Philips (6500 394); the Kinderszenen, which Benno Moiseiwitsch played as boy, man, and petit maître; of the Waldszenen, a particular passion of Clara Haskil; and of the Arabeske, for which Artur Rubinstein was famous when he was famous for little else (this latest version is not only on LP but on eight-track cartridge and cassette as well).

Inevitably, there must be the Schumann Hardly Anybody Knows, those works of which even the merely adequate performances are so infrequent that their names are a command to the attention whenever they appear on the program of a reputable pianist. Heading the list would be the Bunte Blätter, whose sole listing in the current catalog is by Robert Silverman (on Orion 7146) and which was once issued (in part) with credit to a performer provocatively identified as Anon. (on the General label in 78-rpm days); followed by the Nachtstücke, whose charms Arrau and Gliedr presently propagate; and the Novellen, of which Beveridge (Unabridged) Web- ster is the contemporary sponsor of the only complete version in general circulation.

Sir Thomas Beecham would have called a “strong” pianist, one whose intentions are decisive and unambiguous. In the present instance, the magnetism and the strength are less suitable to the Fantasiestücke than they are to the Davidsbundlertänze with which they are coupled. In either case, let us hope that someone up there on Columbia’s executive floor really likes Perahia. In all seriousness, the property of Demus, the consequences of “dull” Schumann, if the contradic- tion can be tolerated, the “Abegg” Variations (Op. 1), and the B-Minor Allegro (Op. 8), as well as the more expectable Fantasiestücke and Etudes Symphoniques (the latter provided with the five posthuminously published varia- tions the composer deleted from the original sequence). Engel—whom I have no prior familiarity—has plenty of strength to dispose, but less magnetism than either Perahia or Pol- lin. In Schumanneesque terms, the answer to the question “What’s in a name?” could be “A Papillon by any other name would still be a Papillon.” For Engel, all too often, a Pop- illon or a Novelle is but a primrose by the river’s brim—the final touch of fantasy that causes the petal to flutter and the leaf to glow is all too seldom at his command. In all, this release does not argue overpoweringly for Engel as the man to fulfill the promise of a complete Schumann cycle, as the designation “Das Klavierwerke L” implies.

The informed reader might well ask, with proper skepticism, “Who is such a man?” My nomination for the man to do the job, and to take on our fourth, hitherto unspecified cate- gory—the Schumann Nobody Knows—is Jörg Demus. This is not a choice based on a hunch, a random impression, or even a personal predilection, but rather, in all rea- sons: a palpable demonstration (on nineteen discs, available through the Musical Heritage Society) of Demus’ fitness as interpreter for the whole canon of solo-piano Schumann.

In the first three categories, Demus’ Carnaval does not make us forget Rachmaninoff’s, nor does his Kreisleriana put Cortot’s to shame, or his Etudes Symphoniques surpass Askkenazy’s. I will, however, say that in each there are insights and outputs that identify Demus as a man with the Schumanneesque spirit—which is to say one with a mind for the picturesque and the pictoresque (as well as the Humoresque and the Arabeske) which make Schumann the most poetic of composers. In the big, broad body of work for which phonographic credit is not alien to the property of Demus, the consequences leave little desire for a contrary point of view.

Included are not only the Eight Polonaises for four hands (played with Norman Shelter) which though published as Op. 3, are actually the first known compositions of Schumann, but also some of the very last works of his of which we have knowledge—the Albenblätter (Op. 124) and the Morning Songs (Op. 133).
Here the Schumann "quality," to borrow a painting term, is deeper in tint, the brushwork less sparkling. But the turn of phrase and the originality of attitude still surge to the surface in these works, even after such values have receded beyond the reach of Schumann's faltering mind in most other contexts.

Demus also shows his affinity with the greatest Schumann, those works in which planning leaves off and sheer impulse takes over. I think, for example, of the second of the Nachtstücke (in F Major), where it is Schumann's pleasure to ponder the possibilities of one-two-measure, descending-ascending figure no fewer than forty times in a structure of approximately one hundred and twenty measures (there is an occasional contrasting idea). No two statements are quite the same, but Demus illuminates each deviation with a refinement of taste that supports my view that although Schumann may not have invented the inner voice, he did more to give it an individual identity than almost anyone else.

This affinity, demonstrated so briefly in the F Major Nachtstücke, works to swing wide the portals of perception on such superior, little-known works as those involving the pianization of Pagani (Op. 3 and Op. 10), compositions that sparked an impulse that subsequently communicated itself to Liszt, Brahms, Rachmaninoff, Casella, Dallapiccola and others: the Album für die Jugend (not to be confused with the Kinderszenen); sundry Fughettas (Op. 126); and the far-out, all but totally unexplored Sonatas for the Young (Op. 118), which Schumann wrote—one each—for his three children. Here is an incomparable malum in parvo in which Schumann at forty-three (1853) reduced to the essentials of technical simplicity the wisdom and sophistication of his musical mastery.

After experiencing what Demus makes of them, it is my opinion that every virtuoso should be required to demonstrate a like command of content before being allowed to confuse the issue of artistry with the mere capacity to execute complex passagework in works of greater note.

For those to whom he is an amorphous entity on the musical scene, Jörg Demus may be identified as one of a trinity of pianistic talents that emerged from post World War II Vienna. The others, faster off the mark but less endowed with staying power, were Friedrich Gulda and Paul Badura-Skoda. Schumann-Demus may be found in the earliest annals of Westminster (early Fifties). And the pianist has furthered his involvement with the Schumann style in the intervening years through various ensemble undertakings—among collaborations, as accompanist, with the peerless Dietrich Fischer-Dieskau.

It is a tempting invitation to participate in all four categories of Schumann that the Musical Heritage Society offers: each three-disc volume superbly reproduced, incidentally—is available at a mail-order price of $10.50 (plus $3 handling charge from MHS at 1991 Broadway, New York, N.Y. 10023). I recommend particularly Volume I, titled "Schumann and the World of Childhood," with the three Sonatas for the Young, and Volume V, "Fantasies and Fantasy Pieces," with the Nachtstücke, Op. 23, Romances, Op. 28, and the Fantasiestücke, Op. 111. Should you go for the lot, you may not have to buy another Schumann piano record as long as you live—an extraordinary statement, but an entirely defensible one.

Another amazing achievement of modern cassette technology.

Round screws in square holes.

Big deal, you say? Well, it really is. Square holes are better because plastic shavings from the threads drop into the corners of the holes and create a much tighter grip. Once the shavings are in the holes, they don't cause trouble bouncing around in the works. Square holes are just one of the many little improvements that give you a lot more pleasure out of Maxell Ultra Dynamic cassettes. There's a timing leader that gives you exactly five seconds up front, so you always know where the music starts. The timing leader is also a head-cleaner. And since it's non-abrasive, it doesn't rub as it cleans.

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

CIRCLE NO. 28 ON READER SERVICE CARD

If you have a head for numbers, look at these:

Lightweight, comfortable, headphones from Audio-Technica deliver superb sound at a modest price. Open-back bipolar design needs no heavy earcups or harsh springs, yet delivers full bass and impressive transient response. No unneeded, redundant controls or gimmicks. Just simple listening pleasure. Now at your Audio-Technica dealer. Get your head into better sound today.

Audio-Technica deliver impeccable sound at a modest price.

CIRCLE NO. 3 ON READER SERVICE CARD

105
For your listening enjoyment

THE OPERAS IN MARCH

IL BARBIERE DI SIVIGLIA
The most popular of all operatic comedies and with good reason. Rossini was so lazy he wrote in bed. When a sheet of music would fall to the floor he didn't bother to pick it up. He merely dashed off another and that is the way the music sounds—completely effortless, high-spirited, gay, and without a rival.

LES TROYENS
The work of a great and original genius and another first at the Metropolitan. It is actually two operas united by the epic theme of the founding of Rome and covers no less than the fall of Troy and Aeneas' affair with Dido at Carthage. As a boy Berlioz devoured Virgil and he meets the poet on his own heroic plane.

I VESPRI SICILIANI
A murky tale of the French occupation of Sicily in the thirteenth century. The bells which ring out after a wedding are the signal for the massacre of the French. You know the overture, which has been acclaimed Verdi's best. Now hear the rest of this powerful work which is being heard this season for the first time at the Metropolitan.

DIE GOETTERDAEMMERUNG
The last and loftiest peak of that singular and towering range, "the gigantic mountain-chain of the Ring," as Liszt called it. This is the conclusion of the whole matter. Greed and treachery have done their work and Siegfried, the hero, is slain. By her self-immolation Brünnhilde opens the way to the redemption of the world by love.

Please send quiz questions to Texaco Opera Quiz, 135 East 42nd Street, New York, N.Y. 10017.
Classical Discs and Tapes

Reviewed by Richard Freed • David Hall • George Jellinek • Igor Kipnis • Paul Kresh • Eric Salzman

Recording of Special Merit


Performance: Very enjoyable
Recording: Excellent

All five of these concertos date from the late 1750’s or early 1760’s, and they exhibit the tuneful and galant characteristics of the music of that post-Baroque era. Haydn’s three extant concertos are not, perhaps, his most distinguished contributions to the art of the concerto, but they are pleasant and engaging. The same may be said of the concerto by Johann Georg Albrechtsberger (1736-1809), another Austrian who was a friend of Haydn, who eventually rose to the position of organist at Vienna’s famous St. Stephen’s Cathedral, and who is perhaps best known today as one of Beethoven’s counterpoint teachers. Joseph Haydn’s younger brother, Michael, is represented by the most unusual concerto in the album, a work featuring not only the organ as solo instrument but also the viola, both with a more virtuosic display than in the other works.

Explanations of symbols:
- = reel-to-reel stereo tape
® = eight-track stereo cartridge
= stereo cassette
® = quadraphonic disc
® = reel-to-reel quadraphonic tape
® = eight-track quadraphonic tape
® = quadraphonic cassette

Monophonic recordings are indicated by the symbol ®

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

All three composers had greater or lesser associations with Eisenstadt and the Esterházy. Joseph Haydn, of course, was the resident composer, Michael Haydn wrote various works for Prince Esterházy, and the manuscript, the German Bach Soloists, under the direction of Helmut Wunschermann. Tempos are sprightly, rhythms are bouncy, and the precision of the instrumentalists (especially considering the acoustical difficulties of recording in some of these over-resonant churches) is entirely admirable. The reproduction is splendid.

I.K.

C.P.E. Bach: Flute Concerto in D Minor (Wq. 22). Cimarosa: Concerto in G Major for Two Flutes and Orchestra. Aurele Nicolet (flute); Christiane Nicolet (flute, in Cimarosa); Stuttgart Chamber Orchestra, Karl Münchinger cond. London CS 6739 $5.98.

Performance: Good
Recording: Good

Unlike the celebrated Oboe Concerto Arthur Berghain fashioned from Domenico Cimarosa’s keyboard works, this delicious confection for two flutes (with oboes, horns, and bassoon in the orchestra as well as strings) is all Cimarosa. Twenty years ago Angel released a recording of this work, played by Aringo Tassman and Pasquale Esposito with the Scarlatti Orchestra of Naples under Franco Cacchiolo, which, for all its tubby sound, was magical. The new one hasn’t quite that magic, but, with two such fine soloists and London’s shimmering sound, it is a good deal more than merely attractive.

So is the splendid C.P.E. Bach Concerto, a really substantial work with a good deal of drama, but Hans-Martin Linde makes a stronger case for it in his performance with the Lucerne Festival Strings on Deutsche Grammophon Archive 198435 (coupled with a G Major Flute Concerto by the same composer). Linde is more aware of the style of this music and its particular demands, and after hearing his performance, one is more likely to notice how wide a vibrato Nicolet uses. But those for whom a single C.P.E. Bach flute concerto is ample will not be unhappy with this London disc— and, of course, there is that lovely Cimarosa.

R.F.

RECORDING OF SPECIAL MERIT
BERLIOZ: La Damnation de Faust. Nicolai Gedda (tenor), Faust; Jules Bastin (bass), Méphistophélès; Josephine Veasey (mezzo-soprano), Marguerite; Richard Van Allan (bass), Brander; Gillian Knight (mezzo-soprano), Celestial Voice. London Symphony Orchestra and Chorus, Ambrosian Singers, Colin Davis cond. PHILIPS 6703 042 two discs $20.94.

Performance: Very good
Recording: Excellent

With the conclusion of La Damnation de Faust, this unique and forever fascinating "dramatic legend," another imposing pillar has been added to the edifice Philips is constructing under the heading of "The Colin Davis Berlioz Cycle." By now the conductor's credentials as the leading Berlioz interpreter of our time are well established, and here again he is the principal strength in the enterprise, bringing to the music an authority based on painstaking study and an obvious sympathy. His reading reveals the dazzling colors of the orchestration and revels in those quicksilver flashes of thematic hints, those

mand of legato enables him to sustain "Voici des roses" well, if not spectacularly, and Richard Van Allan does Brander's light song effectively.

With good choral work well balanced with the orchestra, and very fine engineering that allows the shimmering musical textures to emerge with clarity, this new recording now becomes the preferred version of La Damnation de Faust: it is distinctly superior to the Angel set under Prêtre, the Deutsche Gramphon version (Markethchick) is abridged, and RCA 6114 (Munch) is in mono. The latter two are remarkably well conducted, but the singing superior to that of the all-star recording in this new, sumptuously packaged Philips album.

A note of caution: you may be slightly taken aback by the unusually slow pace Davis has chosen for the famous Rubecex March episode early on. It may take a little getting used to, but stay with it: it is completely justified by the unfailing orchestral splendors that follow through to the end.

BIELET: Jeux d'Enfants (see GERSHWIN)

BOYCE: Symphonies (complete). No. 1, in B-flat Major; No. 2, in A Major; No. 3, in C Major; No. 4, in F Major; No. 5, in D Major; No. 6, in F Major; No. 7, in B-flat Major; No. 8, in D Minor. Menuhin Festival Orches-
stra, Yehudi Menuhin cond. ANGEL S-36951 $5.98.

Performance: Mellow
Recording: Good

These wonderful little symphonies are in themselves so ingrating that virtually any thoughtful performance is irresistible, whether the emphasis be on intimacy, charm, or sheer vigor. Menuhin gives joyous, stimulating performances, in which, however, I feel the "thoughtfulness" gets in the way of the feeling of robust spontaneity one really wants most of all in this music. Antonio Janigro, who conducts the Zagreb Soloists in the Boyce cycle on Bach Guild HM-235D, and I believe Jörg Faerber, in his Turnabout recording with the Württemberg Chamber Orchestra (TV 34133), use Max Goberman's edition of the symphonies, based on the original publication of 1760; Menuhin uses one prepared for him from the same source—and I think the "thoughtfulness" gets in the way of the feeling of robust spontaneity one really wants most of all in this music.

J. R. G.
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.
In his excellent book *The Music of Spain*, Gilbert Chase quotes Manuel de Falla, that most Spanish of Spanish composers, writing on the subject of a projected stage work: "My desire is to represent...through music that is intensely expressive and evocative...all that is greatest in the musical heritage of our race, be it in a natural or an artistic manner." It is a statement which, without too great a wrench out of context, can be read as an admirably concise and refreshingly unambiguous summation of the nationalistic credo in music, one as applicable in Bohemia or Hungary as in Iberia. It is also, for Falla as well as for a number of other Spanish composers of his time, an apt description of a working method—the pragmatic exploitation of folk and popular-music sources as material for the creation of art music.

One particularly successful example of this method is Isaac Albeniz's piano suite *Iberia*, the four books and twelve individual pieces of which are brilliantly distilled and therefore stunningly evocative "impressions" (Albeniz's word) that take their titles from Spanish dances, places, and, in one case (*Fete-d'Indy*), a religious festival. Pianist Alicia de Larrocha has just recorded for London a two-disc album that contains the whole of *Iberia* together with *Navarra*, a piece that—symmetry be damned—probably belongs in the suite as well, and the six *Cantos de Espaiia*, the Albeniz most of us already know, whether from the piano originals or from guitar transcriptions.

Though we know a little of the music of Albeniz, we know much less of Albeniz the man. As Paul Kresh pointed out in his December review of two other Albeniz albums, the composer-virtuoso's life story reads rather like a movie script. A child reject (too high-spirited) at six, a runaway age of four, he was a Paris Conservatoire student by fifteen and a royal pension (from Alfonso XII) that enabled him to go to Brussels to complete his musical education (there being, doubtless, little else anyone could still instruct him in at that late date).

There is more, of course, and although the Albeniz biographies—"su vida inquieta y arroserosa"—have not yet, as far as I can discover, been translated into English, the extensive notes (both biographical and musical, and dating from the late Twenties) by the German musicologist Edgar Istel in London's generously illustrated album brochure have. The whole story is not a little reminiscent of the career of our own Louis Moreau Gottschalk—in fact, Albeniz arrived in San Francisco on his American "tour" only a few years after Gottschalk had precipitously embarked from that city for South America. It is fascinating, indeed, to let the mind run with the possibility that Albeniz was, in some strange way, following a warm trail left by Gottschalk. Albeniz was born in 1860; Gottschalk had left Spain in 1852 after a two-year sojourn as the darling of the court, so his music almost certainly would still have been on Spanish keyboards and in Spanish ears during the prodigy's childhood. Albeniz reached Cuba about 1873, and Gottschalk, who returned to the U.S. in 1862 after spending a number of years in the Antilles, was in most cases that of translating from plucked strings to struck strings; that so many of his piano works have been arranged back into the guitar idiom and "returned to the folk," is testimony to his success.

Alicia de Larrocha's success in performing these pieces stands the guitar test as well: the instrument's unique throb is as omnipresent in her interpretations as the almost palpable sense of the Spanish air is in Albeniz's music. I have heard Sra. de Larrocha perform *Iberia* twice in the concert hall, and I may be. With *Iberia*, Albeniz was so renowned a master, the ability, well-demonstrated in his transcriptions of Paganini's violin music and Schumann's vocal music, to get down to essentials, to translate into the idiom of struck strings musical ideas that were born on others that had to be stroked—by bow or by air, as the case may be. With Albeniz, it was not a matter of transcription but, as mentioned previously, of distillation. *Iberia*, except for *El Polo*, is fashioned not of specific, identifiable examples of Spanish folk or popular songs, but of their classically abstracted essence, a kind of "idea" of the originals that, like a perfume essence, is more pungent, more powerful than the musical flowers from which it came. (Album commentator Istel doesn't agree with most critics that *Iberia* occupies the more exalted plane in Albeniz's art, feeling that you can't write real Spanish music, "with folkwise amiability," on any but Spanish soil. But that is another, a sentimental or perhaps even political, kind of nationalism, one foreign, I think, to the artistic purposes of Albeniz and of Falla as well.) Albeniz's problem, beyond the attainment of tranquility for recollection and the maintenance of a necessary aesthetic distance, was in most cases that of translating from plucked strings to struck strings; that so many of his piano works have been arranged back into the guitar idiom and "returned to the folk," is testimony to his success.

Alicia de Larrocha's performance is virtuoso in both technique and feeling.

Reviewed by William Anderson

Iberia

Alicia de Larrocha's performance is virtuoso in both technique and feeling.

Stereo Review
drums; his tempo in that movement is a little headlong, too. Menuhin's timpani are much more in the picture, but his harpsichord is obtrusively rambunctious and his tempo is just a bit stiff. Janigro is outstanding in this particular work: not only is his basic tempo ideal, but he, alone among the three conductors, uses an organ instead of harpsichord for continuo in No. 5, a most effective touch. Of the three recordings, Menuhin's Angel offers the most opulent sound, marred only by what appears to be an imperfect tape join in the allegro of No. 8.

Each of the three versions of the symphonies is really very satisfying in its own right, and each conductor is more persuasive than the others in certain of the individual pieces. Menuhin probably shows the greatest individuality but, as I have suggested, the least spontaneity. Also, it is worth noting that for the price of the Menuhin you could buy both the other versions. Pressed for a single recommendation, I would probably go with Faerber, but I would surely miss the grand effect both Menuhin and Janigro make in No. 5. R.F.

BRITTEN: The Young Person's Guide to the Orchestra (see PROKOFIEV)

CHABRIER: Trois Valses Romantiques (see GERSHWIN)

CIMAROSA: Concerto in G Major (see C.P.E. BACH)

DVORAK: Slavonic Dances (see MOZART)


Performance: Bright bonbons

Recording: Excellent quadraphonic

The husband-and-wife team of Frances Veri and Michael Jamanis have been getting themselves grants, winning competitions, and delighting concert-hall audiences ever since they met at the Juilliard School and decided to be duo-pianists together.

The long suit of the team is charm, and they seem to choose their programs accordingly. Nothing could be more charming than Darius Milhaud's popular Scaramouche, written as incidental music for a children's play in 1937. With its marionette-dance opening that recalls Golliwogg's Cakewalk, its flowing lyrical middle movement, and the Brazilian rhythms of its colorful, succinct finale, the nine-minute suite is hard to resist, and the pianists make the most of its pretty graces and winning harmonies. Here is music as light and insubstantial as a meringue, and they know just what to do with it. If the Milhaud piece is a meringue, Chabrier's Trois Valses Romantiques add up to a musical soufflé; again the touch is light, the colors clear, the shadings deftly drawn.

Of the twelve pieces for children in Bizet's Jeux d'Enfants, the team has picked the live-the-composer himself chose to orchestrate. The little march, the lullaby, the spinning top of an impromptu, the duet for "little husband and little wife," and the dazzling galop are brought off with fleet Gallic sparkle.

When the team approaches Gershwin's original version for two pianos of his Rhapsody in Blue, however, it is of course no longer dealing with French divertissements. The Gershwin work, particularly when the lavishly
orchestral colors are lacking, calls for a broader, bigger, less delicate approach. Symphonic jazz is nothing if you take away the jazz, refine to delicacy the strident vibrality and syncopation that are the work's very fiber, and try to transplant the Broadway glitter to some sunlit vineyard of French impressionism. The Veri and Janissis version, by the way, is billed as the "only recorded performance" of the four-hand score. It is the only LP performance, but there was an old Victor two-disc set of '78's by Froy and Bragotto years ago. It captured the Gershwin idiom far better, but never mind. On the whole, this is a salutary recording debut and makes for a pleasant listening experience, especially with the sharply defined sound of the two instruments in counterpoint passages which the good five-channel matrix four-channel recording makes possible.

P.K.

HAYDN, J.: Three Organ Concertos (see ALBRECHTSBERGER)

HAYDN, M.: Concerto in C Major for Organ, Violin, and Strings (see ALBRECHTSBERGER)

IVES: The Celestial Country. Hazel Holt (soprano), Alfred Hodges (alto), John Elvès (tenor); John Noble (baritone); Schütz Choir of London; London Symphony Orchestra. Harold Farberman cond. COMPOSERS RECORDINGS, INC. CR1 SD 314 $5.95.

Performance: Fair to good

Recording: Ineffective

In this cantata Ives the daring experimenter seems to have been smothered by Ives the practicing church musician (the was organist at New York's Central Presbyterian Church from 1899 to 1902 while he was learning the ropes in the insurance business during the year). Except for some intriguing dissonance woven into the organ prelude, some effective rhythm drive and syncopation in the opening chorus, a very lovely string-quartet intermezzo, and some fine part-writing for the a cappella double chorus that follows, the music moves along at a fairly standard Victorian-churchy pace.

Unquestionably part of my negative response to The Celestial Country at least this recording of it, stems from the production itself, which is marred by an over-prominent electronic organ and an instrumental and vocal ensemble sound that simply does not come together for effective and full-bodied projection in the first and last parts of the work. There are individual excellences throughout, however: the aforementioned string quartet intermezzo, the unaccompanied double-violin episode, and the beautifully graded dynamics that baritone John Noble brings to the concluding lines of his "Naughted that country needeth" aria. Conceivably a genuine church acoustic would have provided the richness and body lacking in this recording. It is too bad that Harold Farberman, for many years a baritone in the New York City Opera and the Metropolitan Opera, had to carry out this project under what appears to have been less than ideal conditions, despite the excellent reputation of his performing forces.

P.H.


Performance: Very good

Recording: Excellent

Alfred Brendel's first exciting records for Vox, back in the Fifties, included five discs of Liszt: his fabulous account of the B Minor Sonatina is still available on Turnabout TV-S 34424, together with the Mephisto Waltz and the so-called "Dante Sonata," which concludes the sequence on the new Philips release. It is good to have him recording Liszt again, and to have the Deuxième Année in full. (Continued on page 114)
NOW... understanding more about music can be as easy as listening to your favorite recordings.

Stereo Review is proud to announce an important new set of recordings created to help you expand your understanding of music.

This unique four-disc album is interesting, easy to comprehend, and instructive. It is the first project of its kind to approach the understanding of music through its basic elements: rhythm...melody...harmony...texture

If you have wanted to know more about music—or simply to enjoy it more—Stereo Review's GUIDE TO UNDERSTANDING MUSIC will be the most rewarding step you can take in that direction.

Written and narrated exclusively for Stereo Review by David Randolph, Music Director of the Masterwork Music and Art Foundation, this fascinating set of stereo records will help you become a more sophisticated, more knowledgeable listener—and a more completely satisfied one as well. It will give you an "ear for music" you never thought you had.

In the GUIDE TO UNDERSTANDING MUSIC, David Randolph first discusses, by means of recorded narration, how the composer uses and unifies all the basic musical elements. After each musical point is made in the narration, a musical demonstration of the point under discussion is provided. Thus you become a part of the creative musical process by listening, by understanding, by seeing how music's "raw materials" are employed by composers and performers to attain their highest level of expressivity and communication through musical form.

FOUR LONG-PLAY STEREO RECORDS

Record I — The Elements of Music
1. Rhythm
2. Melody
3. Harmony
4. Texture

Record II — Sense and Sensation in Music
(The Instruments of the Orchestra)
How Music Is Unified

Record III — Form in Music
Words and Music

Record IV — Can Music Tell a Story or Paint a Picture?
The Interpretation of Music

The GUIDE TO UNDERSTANDING MUSIC contains OVER 200 MUSICAL EXAMPLES which have been carefully chosen from among thousands of recordings by major record companies as the best illustrations of musical points made in the recorded narration. In addition, supplementary musical demonstrations were specially recorded for this album.

FREE BOOKLET INCLUDED

The accompanying booklet is a valuable complement to the album. It presents David Randolph's straightforward professional approach to music, and shares the insights and understanding of his many years of experience in bringing music to listeners...as well as advice on how you can make the best use of the album.

If you already have some knowledge of music, the Guide to Understanding Music can expand and enrich that knowledge. If you've always wanted to understand music but have been discouraged because it looked too difficult and time-consuming, the Guide to Understanding Music can show you how easily and quickly you can make yourself a home with any music.

FREE BONUS OFFER

If you are among the first 1,000 to order this completely fascinating new GUIDE TO UNDERSTANDING MUSIC Record Set, you will also receive—absolutely free—the eight-volume library, The Masters of Music. Ordinarily an $8 value, this unusual set offers an instructional and entertaining look at the careers of eight famous master composers. After this limit is reached, the Guide to Understanding Music alone will be shipped.

The Masters of Music contains the biographies of:

1. Bach
2. Beethoven
3. Brahms
4. Chopin
5. Debussy
6. Liszt
7. Mozart
8. Tchaikovsky

The Masters of Music has been several years in the planning and production stages to assure that it would be as complete, as up-to-date, and as effective a presentation of its subject as possible. The exclusive four-disc recording is now ready, available for the first time through Stereo Review. The special low price is just $15.98, postpaid, for all four 33 1/2 rpm stereo long-play records, a price made possible by the availability of the consulting and production facilities of Stereo Review and its staff. Under ordinary auspices, a work of this nature and importance would cost much more.

First Time Ever Offered

The Guide to Understanding Music has been several years in the planning and production stages to assure that it would be as complete, as up-to-date, and as effective a presentation of its subject as possible. The exclusive four-disc recording is now ready, available for the first time through Stereo Review. The special low price is just $15.98, postpaid, for all four 33 1/2 rpm stereo long-play records, a price made possible by the availability of the consulting and production facilities of Stereo Review and its staff. Under ordinary auspices, a work of this nature and importance would cost much more.

Records, Ziff-Davis Service Division 595 Broadway, New York, N.Y. 10012.

Yes, I want to enrich my musical background! Please send the Guide to Understanding Music at $15.98 postpaid. I understand that if my order is among the first 1,000 received, I will receive The Masters of Music books as a free bonus offer.

[ ] My check (or money order) for $_______ is enclosed.
[ ] CHARGE: [ ] American Express [ ] BankAmericard

Account #_____________ Address__________________________

Signature (legible)________________________ City______________

Print Name_________________________ State________ Zip___________

ENCLOSE PAYMENT WITH ORDER IF NOT CHARGED
George Jellinek reviews

THE BARBER OF BAGDAD

PETER CORNELIUS (1824-1874), musician, poet, and all-round man of learning, was a friend of Richard Wagner and Franz Liszt and a resident of Weimar during the most important period of his short life. His comic opera Der Barbier in Bagdad (1858) was a minor masterpiece in the tradition of Weber’s Abu Hassan (1811) and Nicolai's The Merry Wives of Windsor (1847). In an open-minded society it would have been greeted with jubilation, but in the Germany of the post-1848 years it was met with incomprehension. Cornelius was a composer who aspired higher than did the popular and successful Gustav Lortzing (1801-1851), but his aspirations strayed from the Wagnerian path, and those were not the years to seek musical independence.

Hurt by the work's failure, Cornelius withdrew it and died without ever seeing it staged again. He was thus spared the efforts of such well-meaning friends as Franz Liszt and Felix Mottl, who attempted to remodel the opera according to the requirements of the Zeitgeist, but without success. An entire generation had to pass before the opera could regain its original shape, and, after a successful revival in 1905, began to claim its rightful place in the German operatic literature. It may never become an international repertoire piece, but Eurodisc’s new recording of the work, the first complete one in stereo, will go a long way toward enlarging its audience.

The story is based on an episode in A Thousand and One Nights. Abul Hassan Ali Ebne Bekar (this full name recurs often in the opera to become a leitmotif of sorts) is a tonsorial busybody with an immense respect for his own cleverness, just like his counterpart in Seville. Unlike Figaro, however, Abul is very old and not exactly nimble. Furthermore, his help is unwanted, and his meddling almost frustrates the efforts of the two lovers, Margiana and Nureddin, to be united.

The opera has some built-in weaknesses. The plot takes a long time to get under way, and then the resolution comes too soon—it lacks a central idea. But its text, Cornelius' own, is a gem. A two and one-half wizard, Cornelius had the virtuoso facility of Berlioz in the use of Woodward color and special harmonic devices (Cornelius translated the Berlioz operas into German). The influences, however, do not cloud the freshness and originality of the composer’s creative invention. Cornelius may have been too much a craftsman: he believed in constant variation, seeking great pains to avoid predictable turns by cast, and he composed his modulations or harmonic variants sometimes within the same musical number. This may explain the fact that, while the music is easy on the ear, it lacks the simpler magic of immediately memorable tunes. But the score is unceasingly refreshing, with moments of great lyrical beauty in the second-act Muezzin scene.

About sixteen years ago, in the opera’s first commercial recording (Angel 3553, mono and deleted), Elsa, the Scher MODIFY CORNELLIS and Nicolai Gedda, in peak vocal form, set a standard for the music of Margiana and Nureddin which is not fully matched in the present performance. Nonetheless, Sylvia Geszty and Adalbert Kraus are both appealing singers, perfectly in character. The comic title role fits the high basso into the very comic Kraus is. Geszty and Adalbert Kraus are both appealing singers, perfectly in character. The rich, resounding voice of Adalbert Kraus is especially well-suited to the role of Mustapha, the Muezzin scene. A nnees.

The plot takes a long time to get under way. When it begins, the situation is too much a craftsman: he believed in constant variation, seeking great pains to avoid predictable turns by cast, and he composed his modulations or harmonic variants sometimes within the same musical number. This may explain the fact that, while the music is easy on the ear, it lacks the simpler magic of immediately memorable tunes. But the score is unceasingly refreshing, with moments of great lyrical beauty in the second-act Muezzin scene.

About sixteen years ago, in the opera’s first commercial recording (Angel 3553, mono and deleted), Elsa, the Scher MODIFY CORNELLIS and Nicolai Gedda, in peak vocal form, set a standard for the music of Margiana and Nureddin which is not fully matched in the present performance. Nonetheless, Sylvia Geszty and Adalbert Kraus are both appealing singers, perfectly in character. The comic title role fits the high basso into the very comic Kraus is. Geszty and Adalbert Kraus are both appealing singers, perfectly in character. The rich, resounding voice of Adalbert Kraus is especially well-suited to the role of Mustapha, the Muezzin scene. A nnees.

The plot takes a long time to get under way. When it begins, the situation is too much a craftsman: he believed in constant variation, seeking great pains to avoid predictable turns by cast, and he composed his modulations or harmonic variants sometimes within the same musical number. This may explain the fact that, while the music is easy on the ear, it lacks the simpler magic of immediately memorable tunes. But the score is unceasingly refreshing, with moments of great lyrical beauty in the second-act Muezzin scene.

About sixteen years ago, in the opera’s first commercial recording (Angel 3553, mono and deleted), Elsa, the Scher MODIFY CORNELLIS and Nicolai Gedda, in peak vocal form, set a standard for the music of Margiana and Nureddin which is not fully matched in the present performance. Nonetheless, Sylvia Geszty and Adalbert Kraus are both appealing singers, perfectly in character. The comic title role fits the high basso into the very comic Kraus is. Geszty and Adalbert Kraus are both appealing singers, perfectly in character. The rich, resounding voice of Adalbert Kraus is especially well-suited to the role of Mustapha, the Muezzin scene. A nnees.

The plot takes a long time to get under way. When it begins, the situation is too much a craftsman: he believed in constant variation, seeking great pains to avoid predictable turns by cast, and he composed his modulations or harmonic variants sometimes within the same musical number. This may explain the fact that, while the music is easy on the ear, it lacks the simpler magic of immediately memorable tunes. But the score is unceasingly refreshing, with moments of great lyrical beauty in the second-act Muezzin scene.

About sixteen years ago, in the opera’s first commercial recording (Angel 3553, mono and deleted), Elsa, the Scher MODIFY CORNELLIS and Nicolai Gedda, in peak vocal form, set a standard for the music of Margiana and Nureddin which is not fully matched in the present performance. Nonetheless, Sylvia Geszty and Adalbert Kraus are both appealing singers, perfectly in character. The comic title role fits the high basso into the very comic Kraus is. Geszty and Adalbert Kraus are both appealing singers, perfectly in character. The rich, resounding voice of Adalbert Kraus is especially well-suited to the role of Mustapha, the Muezzin scene. A nnees.
and 14. The last four of the set belong to the last years of the composer’s life and range from the strange and cryptic No. 17, lasting little more than three minutes in performance, to the expansive final one of the series, lasting almost twelve minutes.

My own special favorites are No. 7, with its genuine gypsy flavor, and Nos. 16 and 17 from the 1882-1885 series, with their anticipatory “modernisms.” Rhapsody No. 8 is of more than passing interest, not only because of its cymbalom effects but because it and the Brahms Third Hungarian Dance share thematic material.

Brazil-born (but of Hungarian ancestry) Roberto Szidon offers brilliant and sternly controlled performances, and, though he by no means lacks fire and spontaneity in his readings, his treatment of the more familiar works, such as the famous No. 2, is quite different from the freewheeling versions to which we have become accustomed over the years. In short, he forces us to listen to the music from a fresh point of view. The recorded sound is clean and full-bodied throughout, and Deutsche Grammophon is to be complimented for the comprehensive and informative fourteen pages of notes that go with the album.

MAHLER: Early Songs (see SCHUMANN)

MILHAUD: Scaramouche (see GERSHWIN)

MOZART: Concerto in A Major for Clarinet and Orchestra (K. 622); Concerto in B-flat Major for Bassoon and Orchestra (K. 191); Andante in C Major for Flute and Orchestra (K. 315). Jack Brymer (clarinet); Michael Chapman (bassoon); Claude Monteux (flute); Academy of St. Martin-in-the-Fields, Neville Marriner cond. PHILIPS 6500 378 $6.98.

Performance: Stylish
Recording: Good

There have been, and still are, many attractive recordings of these works, but only a handful of really outstanding ones. Also, most of the individually desirable items have frustrating couplings in the form of (a) material certain to be duplicated (for instance, two of the horn concertos with the incomparable Gervase de Peyer/Peter Maag version of the Clarinet Concerto on London CS 6178); (b) uninteresting material (a Reinecke harp concerto with the K. 299 performed by Karlheinz Zoller and Nicanor Zabaleta on Deutsche Grammophon 138853); or (c) a less than winning version of an important work, representing either a grudging compromise or provocation to further duplication (the K. 364 attached to Karl Bohm’s K. 297b on DG Minolta SR-T. This is the 35mm reflex camera that lets you concentrate on mood and insight. The viewfinder gives you all the information needed for correct exposure and focusing. Because you never have to look away from the finder to adjust a Minolta SR-T, you’re ready to catch the one photograph that could never be taken again.

And when subjects call for a different perspective, Minolta SR-T cameras accept a complete system of interchangeable lenses, from “fish-eye” wide angle to super-telephoto.

Next time you’re up with the dawn, be ready with a Minolta SR-T. For more information, see your photo dealer or write Minolta Corporation, 200 Park Avenue South, New York, N.Y. 10003. In Canada: Anglophoto Ltd., P.O. Box 115
Heinz Holliger's recording of the Oboe Concerto on an earlier Philips (6500 174) is a happy exception, in that the overside Strauss concerto provides perhaps even more incentive to buy the disc than the Mozart itself, but the problems otherwise present add up to a good argument in favor of an "integral" series of uniform high standards, which is what is offered here.

These three new discs come into direct competition with another such series, the recent Angel set (SC-3783) of the same material (minus the K. 315 Andante) by Karajan and his Berlin Philharmonic players. There is an abundance of elegant playing from both teams, but the Berliners' is unsatisfyingly faceless (except in their K. 299), while Marriner and his associates offer much more individual character, more of both the vitality and the intimacy one wants in this music. Unlike the Angel set, the new Philips discs need not be bought en bloc, but the consistently high level of these stylish performances leaves little possibility of disappointment, either individually or collectively.

The first record is especially successful. The splendid Jack Brymer is heard to better advantage in the Clarinet Concerto here than in his earlier recording with Beecham, whose over-romanticized approach drained the work of its momentum. Michael Chapman, whose name is less familiar than those of his colleagues, gives an exceptionally persuasive account of the Bassoon Concerto (with a tasteful cadenza), and the Andante for Flute, on its smaller scale, is no less impressive. All three of these soloists are heard again on the last disc, which pairs the two works for multiple soloists. This, in general, is another winner, with little to fault it; my only reservations—neither of them too serious—are that the final movement of K. 299 is a bit faster than ideal and the balance between the four soloists in the last movement of K. 297b is less well judged than in the older but smoother Böhm recording on DG.

Philips favors a very close-up focus on the soloists, which tends to exaggerate Claude Monteux's gasps for breath in the Flute Concerto. This would not be enough to put me off, for both works on the second record are played very beautifully, but the Holliger disc is one I consider indispensable, so I would pass up this part of the new series in favor of Holliger's Oboe Concerto and one of the other versions of the Flute Concerto. R.F.

MOZART: Clarinet Concerto, K. 622 (see also the Basic Repertoire, page 59) 

Performance: Distinguished Recording: Good four-channel (SQ)

Czech conductor Zdenek Kolšler gives one of the finest performances of the "Prague" Symphony yet recorded. His pacing is superb, his phrasing natural, the balance between winds and strings (to the final, especially) just about ideal. His way with the Dvořák dances is both as idiomatic and as refined as one could want.

Sonically, too, this strikes me as one of the handsomest, most natural-sounding orchestral items in the quadraphonic catalog. In two-channel playback, however, as with so many of the "compatible" discs I have had occasion to play (both SQ and CD-4), the sound seems less sharply defined than in the best of straight two-channel recordings. The surfaces on my copy are distractingly noisy, unlike those of this fastidious company's previous releases.

Much as I enjoyed Keolker's excellent performances, the record, I think, is primarily for those who insist on four-channel or like to have more than a single version of a favorite work. Peter Maag's remarkable version of the "Prague," which contains all the repeats, remains incomparable: it is now available on London STS-15087 for only $2.98, and London's fifteen-year-old sound is still impressive. Also, six of the Slavonic Dances just aren't enough for Dvořák enthusiasts, and there is available a three-disc Telefunken set (SAT-22523/5), in which Neumann and the Czech Philharmonic perform all sixteen of them, together with The Wood-Dove (Dvořák's finest tone poem), the three Slavonic Rhapsodies, and the Czech Suite. R.F.

PROKOFIEV: Peter and the Wolf. BRITTEN: The Young Person's Guide to the Orchestra. Mia Farrow (narrator, in Prokofiev); André Previn (narrator, in Britten); London Symphony Orchestra, André Previn cond. ANGEL SFO 36962 $5.98, 10 XS 36962 $6.98, 4XS 36962 $6.98.

Performance: High on the list Recording: Excellent

There isn't any. Just quality design and thorough engineering. That's what makes the difference.

Avid's Series 100 Speaker Systems are the premium quality products of extensive research and testing by a team of audio experts whose knowledge and experience are unsurpassed in the field today (Avid has pioneered in the design of quality audio components for broadcasting, industry and education for the past 20 years). Each Series 100 model is unrivaled for performance and value in its class.

Superlatives come easy, but the only way you'll be convinced is to visit your Avid dealer, listen to the accuracy of sound reproduction and see the innovative styling for yourself. We're confident of your favorable verdict.

Avid Corporation, 10 Tripps Lane, East Providence, R.I. 02914 Tel. (401) 438-5400.

CIRCLE NO. 5 ON READER SERVICE CARD
Ever since Peter and the Wolf became a hit after the Boston Symphony recorded it for RCA Victor in the 1930's, it has served as a vehicle for the unlikely people to try their hand as narrators. Richard Haieh took an unabashed elocutionary style to the first recording, in a performance that still reverberates in memory. Since then, we have had every sort of actor from Sean Connery and Peter Ustinov, Boris Karloff, George Raft, and Beatrice Alice to do the honors: Leonard Bernstein both narrates and conducts; even Captain Kangaroo has had a turn at it. Personally, I prefer my Peter without any of them, unenunciated, as available on the test label (on the other side of Captain Kangaroo) in a pliant reading by Leopold Stokowski with the Symphony Hall. However, I am among the millions fond of the personality of Mia Farrow, who happens to be the wife of conductor Andre Previn, and so I turned to the results of their collaboration with eager anticipation. Since then, we have had performances cataloged (3 records). They have used the same narrator, Peter Ustinov, Boris Karloff, George Raft, and Beatrice Alice.

Send Mail Orders to: King Karol Records, P.O. Box 629, Times Sq. Station, New York 10036

New York City residents add 7% sales tax. Other New York State residents add sales tax as applicable.

Recordings catalog.

P.K.

RECORDING OF SPECIAL MERIT

RACHMANINOFF: Vespers, Op. 37. Constantine Ognev (tenor); Klara Korka (mezzo-soprano); U.S.S.R. Russian Chorus, Aleksander Sveshnikov cond. MELIODIV/Angel SRB-1124 two discs $11.96

Performance: Outstanding Recording: Good

Sergei Rachmaninoff had a special fondness for big choral works. He unequivocally designated the choral symphony The Bells, Op. 35, his favorite composition, and found almost equal pleasure in his Vespers, Op. 37, written soon thereafter (1915). Vespers consists of fifteen numbers for a cappella chorus, some with solists. Nine of these come from traditional liturgy, and six are original compositions. The work was composed by Purcell as part of the incidental music he wrote in 1695 for a play called The Martyr of Blood (1660). There was no more, too, I prefer without narration, but Mr. Previn makes a charming pedagogue (his only composition was that for Captain Kangaroo has had a turn at it. Performance: Vigorous Recording: Loud and clear

Joachim Rafl, a Swiss-born disciple of Mendelssohn and Liszt, found himself acclaimed as the greatest exponent of the piano in 1970's as one of the major symphonists of the day (the first of Brahms' four masterpieces was not heard until 1876). But for almost two generations, until the so-called Romantic revival of the late 1960's, Rafl's music—eleven symphonies and two hundred-varied styles. It must be admitted, however, that he was a composer, a conductor, and a pianist who never enjoyed personal success. If there were such a thing as a modern-day Beethoven, Rafl would be it. His music is recognized as one of the greatest contributions to the English language. The Bells, Rachmaninoff's personal favorite are really something to hear. The solos, not otherwise known to me, are also very fine: the tenor properly arched, the mezzo soothingly opulent. Both voices sound as if they have been amplified to make them rise above the massed chorus. While the effect is somewhat artificial, it is inspiring. There is some distortion in forte passages, but the engineering is good. An unusual treat and a welcome addition to the recordings catalog.

G.J.
plus other pieces—went virtually unheard.

It was the ever-enterprising composer-conductor Bernard Herrmann—now resident in England after spending fruitless years in his native U.S. pioneering for Ives and others—who was the first to unearth Raff for the purposes of a large-scale recording. For this None such issue of the "Lenore" Symphony was initially released some three years ago on England's Unicorn label. Since then the Candid label in this country has added Raff's Third Symphony ("In Walde"), Ode to Spring, and Piano Concerto to the disc repertoire, while Genesis has issued a shelf of piano pieces and a second recording of the Piano Concerto.

Based on the same Gottfried Bürger ballad that inspired Duparc's symphonic poem Lenore, composed two years later (and excellently recorded on RCA LSC-3151), Raff's Fifth Symphony is considerably more extended in scope, if not in harmonic originality. The Lenore ballad deals in essence with a love- tormented maiden who curses God for having taken her lover to a warrior's death, whereupon the lover reappears as a ghostly armored rider and takes her on a wild ride that ends amid the shrieks of the demons and spectres of hell.

Raff's symphony begins with a full-scale allegro and slow movement, evocative of the lovers, Wilhelm and Lenore. There follows a brazen folk-like march depicting Wilhelm's departure for the wars, and the finale deals with the actual substance of Bürger's ballad, complete to whinnying woodwinds conjuring up the image of the wild death ride.

A world-shaking masterpiece Raff's "Lenore" is not, but it is an entertaining and—in the slow movement—often beautiful period piece. And no one can complain that the march is not highly effective in its own way—a kind of link between the delightful pageantry of the march in Weber's Konzertstück for piano and orchestra and the frenetic deviltry of Tchaikovsky's in the Pathétique Symphony. Herrmann plays this one to the hilt.

In any event, though, I would advise listeners not to pay too much mind to the program. The music is very enjoyable for its own sake, especially in this zestful performance. The recorded sound is generally excellent. D.H.


Performance: First-rate Recording: Very good

One of the major losses when U.S. Decca abandoned its classical catalog was the collection of recordings made by Sylvia Marlowe—her Couperin (both solo and with various associates), Bach, Handel, Purcell, the Falla concerto, Elliott Carter's sonata, and so on. It seems unconscionable wasteful to allow these performances to disappear permanently, and it is heartening to find CRI rescuing some of the American material from the limbo to which Decca had consigned it.

Marlowe herself commissioned Vittorio Rieti's Partita in 1945 and first recorded it shortly thereafter, with Julius Baker, Mitchell Miller, and the Kroll Quartet, and the Concerto was written for her ten years later; she has enthusiastically championed both works and certainly leaves nothing unsaid in their favor in these crisp, affectionate performances. The sound of the mid-Sixties recording is still excellent, though the focus is quite close-up. Both works, incidentally reflect 'American' in surprising ways: after the quasi-Oriental impressions of the Partita's earlier movements, one of the subjects of its double fugue resembles an old popular song called Should I ('Should I even dare?'), and the concluding movement of the Concerto, although marked alla tarantella, is evocative of the Hoedown in Copland's Rodeo.

BERNARD HERRMANN

Resurrects an evocative Raff symphony

Romarza Andaluza and Jota Navarra, Op. 22, Nos. 1 and 2; Placido and Zupateado, Op. 23, Nos. 1 and 2; Dances in A Minor and C Major, Op. 26, Nos. 1 and 2. Miramar, Op. 42. Victor Martin (violin). MIGUEL ZANETTI (piano). MUSICAL HERITAGE SOCIETY MHS 512760, and the playing is on a similar level of excellence. Unfortunately, in the unholy tradition of record merchandising, the liner notes repeat the few sketchy details about Pablo Sarasate that are easily available from encyclopedias, but say nothing whatever about his gifted interpreter Victor Martin. Senior Martin (the mesre be Spanish) addresses himself less to the flaming abandon and more to the silken elegance of Sarasate's style. He avoids frantic tempos, but clearly articulates all notes and faultlessly dashes off all those fiendish chords (well, virtually all) and virtuoso tricks. But virtuosity for its own sake never intrudes on the music; throughout, one is conscious of the beautiful writing and beau-
tiful playing. The loving treatment of the music is best exemplified in the *Plutero*, where self-conscious virtuosity is absent.

Miguel Zanetti does more with the modest piano writing than any Sarasate pianist (now there is a new concept!) in my previous experience. His assertive playing in the *Jota Navarra* makes him a real collaborator. Good, clean recording, too.

G.J.


Performance: *Staunch*

Recording: *Good*

These performances have everything but the one thing Schumann cannot do without: poetic fantasy. The Dances of the Merry Anti-Philistine Band of David are the more successful here: not in the least dreamy, but good solid stuff. Peralia imparts energy, forward motion, and a burlide quality that isn’t half bad. But his *Aufschwung* doesn’t soar, and there is nothing at all whimsical about *Grillen*, and his *Fantasiestücke* are without much fantasy! Peralia is an excellent pianist, but his Schumann has not yet ripened.

E.S.


Performance: *Good*

Recording: *Very good*

**RECORDING OF SPECIAL MERIT**


Performance: *Compelling*

Recording: *Excellent*

These two records exemplify the contrasting characteristics apparent in the preceding installments of the respective pianists’ Schumann cycles: in general, Claudio Arrau displays greater poetic latitude, in immediate contrast with which Wilhelm Kempff frequently tends to sound prosaic. But play the Kempff record on its own and it is anything but prosaic—it is a fine, musically account of music the pianist obviously loves deeply. In the one instance in which Kempff and Arrau offer the same coupling—the Fantasia in C with *Carnaval*—Arrau’s dreaminess and rubato seem overdone, and Kempff’s firm, straightforward approach more convincing. Elsewhere among the eleven discs to date (four from Kempff, seven from Arrau), though, I find Arrau’s way with Schumann invariably the more interesting, and his new disc is the most fascinating so far.

The same qualities of straightforwardness and occasional understatement that made Kempff’s *Carnaval* so attractive serve the *Kinderszenen* especially well; this is a very satisfying performance. Kempff’s rendition of the G Minor Sonata, however, does sound rather bland, particularly when it is compared with Arrau’s compelling realization, which is alive with the most credible air of youthful impetuosity and yet so subtly and judiciously proportioned. For good measure, Arrau includes the alternative finale for the sonata, an “appendix” very much worth having.

Arrau’s *Kreisleriana* is so brilliantly evocative of the work’s varied moods that there is no real point to be served in comparing it with

**JACK DANIEL’S SILVER CORNET BAND** reached its peak in 1894. Thanks to Paramount Records, you can still hear their music today.

Jack Daniel started the group to sell whiskey at saloon openings and political rallies. Today, we’ve dusted off some of their old-time sheet music and carefully recreated a sound that hasn’t been heard for 75 years. (Finding these old-style mellow conical horns took us from an antique dealer’s attic in Nevada clear to Paris, France.) The result is a Paramount Records’ album that’s available wherever good records are sold. If the music inspires a sip of Jack Daniel’s, don’t be surprised. That’s just what Mr. Jack intended it to do.
anybody else's. It is an interpretation that makes its own standards. Arrau is not given to understatement here, but judges perfectly the line between "expressive" and "excessively." This happens also to be extraordinarily beautiful playing—not mere "pianism," but virtuosity on the highest level.

Philips, in addition to providing first-rate sound, has put separating bands between the sections of Kreisleriana as well as the movements of the sonata—not a must, but a convenience in engineering this or that portion of the work.

R.F.


Performance: Very good  Recording: Good

Anna Reynolds has recorded operas and oratorio before, but this appears to be her first solo recital, and it is most impressive. A dignified and musically accomplished performer in the Ferrier-Bak- er mold, she is gifted with a voice of warm and velvety timbre, which she masters with great sensi- tivity and with expert control in matters of color and dynamics. Miss Reynolds is a na- tive Briton, but her early studies in Italy doubtless contributed to the lovely legato line she is able to sustain, and extended work with such conductors as Karajan and Klemperer must account for her command of and affinity for the German language and mu- sical styles.

Not surprisingly, the artist is at her best in the Schumann songs that call for the feminine touch, though she does make a brave attempt to convey frenziness in Waldeckersprache. The closing song, Frühlingsnacht, could use more sense of rapture, but in the main this is a beau- tiful rendering of the cycle.

The Mahler songs are all early (1880-1888) and of variable quality. Most interesting among them are those that foreshadow the later Mahler. Nicht Wiedersehen, with its sombre mood of a funeral march, looks ahead to Das Lied von der Erde, while Ich ging mit Lust presages one of the Wayfarer Songs. As William Mann puts it in his informative notes, "Mahler in his twenties was an expert, adult, highly imaginative composer." The songs are important to round out our full picture of him. They are not easy to find elsewhere, and Anna Reynolds gives us here a committed and thoroughly sympathetic performance of them.

The accompaniments are generally fine, though I found a certain rhythmic unsteadiness in the Schumann Intermezzo, and the extremely difficult piano part of Frühlingsmorgen was not handled with the sovereign command Gerald Moore reveals in this mu- sic. Nor was Mr. Parsons favored with any- thing better than routine reproduction of the piano tone. No texts are supplied—an unpar- donable omission when it comes to the gen- erally unfamiliar Mahler songs.

G.J.

RECORDING OF SPECIAL MERIT

SCHUMANN: Piano Sonata No. 1, in F-sharp Minor, Op. 11; Fantasie in C Major, Op. 17

Maurizio Pollini (piano). DEUTSCHE GRAM- MOPHON 2530 379 $7.98.

Performance: Superb  Recording: Excellent piano sound

This is a model of how to play and record Schumann. Maurizio Pollini finds exactly the right balance between the gorgeous details of Schumann's keyboard writing and the more difficult problems of articulation and pacing. In particular, he makes the sprawling and diffi- cult F-sharp Minor Sonata the almost-mas- terpiece that it is. He cannot really make the endless rambling finale hold together, but he gives it a good try. The approach is clever. Instead of pushing on to get through the usual desperation try—he takes his time, set- ting a modest tempo, lingeri in the overlap and the improvisational details (just as though he thought them up himself), and building things up only here and there. The result is a slower performance that is actually more meaningful and therefore seems to pass more quickly.

For all the merits of the sonata, it is the superb reading of the great C Major Fanta- sie—curiously placed here as side two—that will attract most listeners. Florestan and Eu- sebius—the names Schumann gave to the twin halves of his schizophrenic personality— were never so well served as here. The ex- pressive range is enormous, and, for once, the Fantasie emerges as the great epic of Roman- tic piano music. Beautiful piano sound.

E.S.

RECORDING OF SPECIAL MERIT

STRAVINSKY: Serenade in A; Piano Rag Music; Circus Polka; Ragtime; Tango; Sonata; Four Etudes; Les Caprices; Valse pour les Enfants. Marie-Francoise Bucquet (piano). PHILIPS 6500 385 $6.98.

Performance: Excellent  Recording: Strong

Stravinsky composed all his life at the piano keyboard, but he wrote only a handful of works for solo piano. Among these there are only two or three really big works, notably the Sonate of 1924 and the Serenade of the follow- ing year. The Ragtime of 1918 and, espe- cially, the incredibly intense Piano Rag Mu- sic of the following year are notable examples of Stravinsky's interest in the stylization of pop elements. This interest was also dis- played in the early children's pieces (Les Cinq Doigts and the little-known Valse, originally published in a Paris newspaper) and was prominent during Stravinsky's American peri- od (Circus Polka "for a young elephant," Tango). But it is a strong element also in the neo- Classical pieces such as the Seve- nole and Sonate. An important and little-dis- cussed element in Stravinsky's neo-Clas- sicism was the old Russian ballet and salon tra- dition of which he was clearly very fond and which he extended into our own day.

There is no reason (beyond its forbidding and rather misleading reputation) for this music to have remained somewhat esoteric. Strong, open, vigorous performances like those of Marie-Françoise Bucquet should do a great deal to change this state of affairs. Mlle. Bucquet has recently appeared rather suddenly on the scene with a barrage of re- cordings and concerts of twentieth-century classics, and this recording should enhance her reputation. The early, Rachmaninoff- Seroulin-like style came out a bit out of line, but everything else has an energy and a frank way of speaking that are delightful.
Stravinsky, so widely regarded as an aristocratic, elitist type, had a certain notion that, given half a chance, there was a wide, not overly sophisticated audience that could appreciate and even play his simpler neo-Classical music, and, in one way or another, his solo piano music was created with this in mind. These performances and the excellent, lively piano presence achieved by the recording should go a good way toward achieving that not-so-secret ambition.

E.S.

**TIPPETT: The Knot Garden** (see Best of the Month, page 79)

**COLLECTIONS**


**JOSÉ VIANNA DA MOTTA:** Piano Recital. Liszt: Eleglogue, from Années de Pèlerinage, Suisse, No. 7; Talentus. Schubert-Liszt: Wabiti? Schubert-Liszt: Veneto, inginocchiatevi; Che soave zeffiretto; Deh vieni, non tardar (with Margarete Teschemacher, soprano). Verdi: Rigoletto: E 'l sol dell' anima; Tutte le

---

**SAVE!**

**AVE MONEY NOW!!** As one of America's largest wholesale distributors, our buying volume has kept our prices the lowest. We pass the savings on to you.

**ERRIFIC... Equipment at terrific prices. We carry over 60 major brands, all factory sealed cartons, fully warranted, shipped from our warehouse fully insured.

**OUTSTANDING VALUE...** We are proud of the fact that we offer the best value anywhere in this industry.

**PRICES** Ours are the lowest of the low, write us now for a lowest of the low quote.

**OVERPAYING FOR AUDIO EQUIP.**

Write us today — or better yet come down and see for yourself.

"We're taking the High Price out of Hi-Fi."

**STEREO CORPORATION**

Dept. S-R-2122 Utica Ave.
Brooklyn, N.Y. 11234
Tel. (718) 338-0263

**CIRCLE NO. 49 ON READER SERVICE CARD**
the latter part of his life heading the Lisbon Conservatorio. He was certainly worthy of admiration. His choice of pieces as represented in this collection is unusual: only Chopin's A-flat Polonaise could in any way be described as a stock item; with the exception of Liszt's transcription of a Schubert song, the rest is remarkably esoteric. Da Motta's friendship with Busoni may be behind this inclusion here of the fourth of Busoni's Élegies (the one that uses the Greensleeves tune in the mistaken assumption that it was of Chinese origin) and the quite straight transcription for two pianos of the finale from Mozart's Nineteenth Concerto. There is a Schubert minuet, played with masculinity and expressiveness though not quite with the lift Schnabel gave it. But what I consider the gem of the collection is a perfectly exquisite performance of the Éloge from Liszt's Années de Pélégri
tude that combines marvelous dance-like rhythms and delicate filigree—really ideal Liszt and an object lesson for so many of today's hard-hitting and unsnubable Liszt interpreters. Da Motta's playing style is remark-
dably direct, and, except perhaps for parts of the Chopin, it is uncluttered by stop-and-start mannerisms. He gives the music definite per-
sonality, and there are few of his interpretations that do not sound "right." On the second
side are three minor salon pieces by the pianist, sounding a little like a cross between Granados and Saint-Saëns, fairly charming but inconsequential. The real surprise, how-
ever, is a live-performance recording of Liszt's Totentanz made on January 19, 1945, when
Da Motta was not quite seventy-seven. This is a powerhouse of interpretative mannerisms that do not sound "right." On the second
side are three minor salon pieces by the pianist, sounding a little like a cross between Granados and Saint-Saëns, fairly charming but inconsequential. The real surprise, how-
ever, is a live-performance recording of Liszt's Totentanz made on January 19, 1945, when
Da Motta was not quite seventy-seven. This is a powerhouse of interpretative mannerisms that do not sound "right." On the second
side are three minor salon pieces by the pianist, sounding a little like a cross between Granados and Saint-Saëns, fairly charming but inconsequential. The real surprise, how-
ever, is a live-performance recording of Liszt's Totentanz made on January 19, 1945, when
Da Motta was not quite seventy-seven. This is a powerhouse of interpretative mannerisms that do not sound "right." On the second
side are three minor salon pieces by the pianist, sounding a little like a cross between Granados and Saint-Saëns, fairly charming but inconsequential. The real surprise, how-
ever, is a live-performance recording of Liszt's Totentanz made on January 19, 1945, when
Da Motta was not quite seventy-seven. This is a powerhouse of interpretative mannerisms that do not sound "right." On the second
side are three minor salon pieces by the pianist, sounding a little like a cross between Granados and Saint-Saëns, fairly charming but inconsequential. The real surprise, how-
ever, is a live-performance recording of Liszt's Totentanz made on January 19, 1945, when
Da Motta was not quite seventy-seven. This is a powerhouse of interpretative mannerisms that do not sound "right." On the second
side are three minor salon pieces by the pianist, sounding a little like a cross between Granados and Saint-Saëns, fairly charming but inconsequential. The real surprise, how-
ever, is a live-performance recording of Liszt's Totentanz made on January 19, 1945, when
Da Motta was not quite seventy-seven. This is a powerhouse of interpretative mannerisms that do not sound "right." On the second
side are three minor salon pieces by the pianist, sounding a little like a cross between Granados and Saint-Saëns, fairly charming but inconsequential. The real surprise, how-
ever, is a live-performance recording of Liszt's Totentanz made on January 19, 1945, when
Da Motta was not quite seventy-seven. This is a powerhouse of interpretative mannerisms that do not sound "right." On the second
side are three minor salon pieces by the pianist, sounding a little like a cross between Granados and Saint-Saëns, fairly charming but inconsequential. The real surprise, how-
ever, is a live-performance recording of Liszt's Totentanz made on January 19, 1945, when
Da Motta was not quite seventy-seven. This is a powerhouse of interpretative mannerisms that do not sound "right." On the second
side are three minor salon pieces by the pianist, sounding a little like a cross between Granados and Saint-Saëns, fairly charming but inconsequential. The real surprise, how-
ever, is a live-performance recording of Liszt's Totentanz made on January 19, 1945, when
Da Motta was not quite seventy-seven. This is a powerhouse of interpretative mannerisms that do not sound "right." On the second
side are three minor salon pieces by the pianist, sounding a little like a cross between Granados and Saint-Saëns, fairly charming but inconsequential. The real surprise, how-
ever, is a live-performance recording of Liszt's Totentanz made on January 19, 1945, when
Da Motta was not quite seventy-seven. This is a powerhouse of interpretative mannerisms that do not sound "right." On the second
side are three minor salon pieces by the pianist, sounding a little like a cross between Granados and Saint-Saëns, fairly charming but inconsequential. The real surprise, how-
ever, is a live-performance recording of Liszt's Totentanz made on January 19, 1945, when
Da Motta was not quite seventy-seven. This is a powerhouse of interpretative mannerisms that do not sound "right." On the second
side are three minor salon pieces by the pianist, sounding a little like a cross between Granados and Saint-Saëns, fairly charming but inconsequential. The real surprise, how-
ever, is a live-performance recording of Liszt's Totentanz made on January 19, 1945, when
Da Motta was not quite seventy-seven. This is a powerhouse of interpretative mannerisms that do not sound "right." On the second
side are three minor salon pieces by the pianist, sounding a little like a cross between Granados and Saint-Saëns, fairly charming but inconsequential. The real surprise, how-
ever, is a live-performance recording of Liszt's Totentanz made on January 19, 1945, when
Da Motta was not quite seventy-seven. This is a powerhouse of interpretative mannerisms that do not sound "right." On the second
side are three minor salon pieces by the pianist, sounding a little like a cross between Granados and Saint-Saëns, fairly charming but inconsequential. The real surprise, how-
ever, is a live-performance recording of Liszt's Totentanz made on January 19, 1945, when
Da Motta was not quite seventy-seven. This is a powerhouse of interpretative mannerisms that do not sound "right." On the second
side are three minor salon pieces by the pianist, sounding a little like a cross between Granados and Saint-Saëns, fairly charming but inconsequential. The real surprise, how-
ever, is a live-performance recording of Liszt's Totentanz made on January 19, 1945, when
Da Motta was not quite seventy-seven. This is a powerhouse of interpretative mannerisms that do not sound "right." On the second
side are three minor salon pieces by the pianist, sounding a little like a cross between Granados and Saint-Saëns, fairly charming but inconsequential. The real surprise, how-
ever, is a live-performance recording of Liszt's Totentanz made on January 19, 1945, when
Da Motta was not quite seventy-seven. This is a powerhouse of interpretative mannerisms that do not sound "right." On the second
side are three minor salon pieces by the pianist, sounding a little like a cross between Granados and Saint-Saëns, fairly charming but inconsequential. The real surprise, how-
ever, is a live-performance recording of Liszt's Totentanz made on January 19, 1945, when
Da Motta was not quite seventy-seven. This is a powerhouse of interpretative mannerisms that do not sound "right." On the second
side are three minor salon pieces by the pianist, sounding a little like a cross between Granados and Saint-Saëns, fairly charming but inconsequential. The real surprise, how-
ever, is a live-performance recording of Liszt's Totentanz made on January 19, 1945, when
Da Motta was not quite seventy-seven. This is a powerhouse of interpretative mannerisms that do not sound "right." On the second
side are three minor salon pieces by the pianist, sounding a little like a cross between Granados and Saint-Saëns, fairly charming but inconsequential. The real surprise, how-
ever, is a live-performance recording of Liszt's Totentanz made on January 19, 1945, when
Da Motta was not quite seventy-seven. This is a powerhouse of interpretative mannerisms that do not sound "right." On the second
side are three minor salon pieces by the pianist, sounding a little like a cross between Granados and Saint-Saëns, fairly charming but inconsequential. The real surprise, how-
ever, is a live-performance recording of Liszt's Totentanz made on January 19, 1945, when
Da Motta was not quite seventy-seven. This is a powerhouse of interpretative mannerisms that do not sound "right." On the second
side are three minor salon pieces by the pianist, sounding a little like a cross between Granados and Saint-Saëns, fairly charming but inconsequential. The real surprise, how-
ever, is a live-performance recording of Liszt's Totentanz made on January 19, 1945, when
Da Motta was not quite seventy-seven. This is a powerhouse of interpretative mannerisms that do not sound "right." On the second
side are three minor salon pieces by the pianist, sounding a little like a cross between Granados and Saint-Saëns, fairly charming but inconsequential. The real surprise, how-
ever, is a live-performance recording of Liszt's Totentanz made on January 19, 1945, when
Da Motta was not quite seventy-seven. This is a powerhouse of interpretative mannerisms that do not sound "right." On the second
side are three minor salon pieces by the pianist, sounding a little like a cross between Granados and Saint-Saëns, fairly charming but inconsequential. The real surprise, how-
ever, is a live-performance recording of Liszt's Totentanz made on January 19, 1945, when
Da Motta was not quite seventy-seven. This is a powerhouse of interpretative mannerisms that do not sound "right." On the second
side are three minor salon pieces by the pianist, sounding a little like a cross between Granados and Saint-Saëns, fairly charming but inconsequential. The real surprise, how-
ever, is a live-performance recording of Liszt's Totentanz made on January 19, 1945, when
Da Motta was not quite seventy-seven. This is a powerhouse of interpretative mannerisms that do not sound "right." On the second
side are three minor salon pieces by the pianist, sounding a little like a cross between Granados and Saint-Saëns, fairly charming but inconsequential. The real surprise, how-
ever, is a live-performance recording of Liszt's Totentanz made on January 19, 1945, when
Da Motta was not quite seventy-seven. This is a powerhouse of interpretative mannerisms that do not sound "right." On the second
side are three minor salon pieces by the pianist, sounding a little like a cross between Granados and Saint-Saëns, fairly charming but inconsequential. The real surprise, how-
ever, is a live-performance recording of Liszt's Totentanz made on January 19, 1945, when
Da Motta was not quite seventy-seven. This is a powerhouse of interpretative mannerisms that do not sound "right." On the second
side are three minor salon pieces by the pianist, sounding a little like a cross between Granados and Saint-Saëns, fairly charming but inconsequential. The real surprise, how-
ever, is a live-performance recording of Liszt's Totentanz made on January 19, 1945, when
Da Motta was not quite seventy-seven. This is a powerhouse of interpretative mannerisms that do not sound "right." On the second
side are three minor salon pieces by the pianist, sounding a little like a cross between Granados and Saint-Saëns, fairly charming bu
one pair each. Carl Czerny (to whom Joseph was not related) wrote a coda as well as a variation; each of the others produced a single variation, as requested, and the fifty-three segments were published in alphabetical sequence, from Assmayer to Wozzeck (the German spelling of the Bohemian Věříšek).

What is perhaps most remarkable about this Telefunken release is that no one has done it before, or, to my knowledge, expected a Vox Box to appear twenty years ago, but it appears that the only portion of Part II recorded heretofore is the Schubert variation, a lovely piece more or less in Ländler style which Kathleen Dale once described as "so tenderly ethereal that even an angel might dance to it."

As one might expect—from contributors who were not comparing notes—both diversity and a certain degree of similarity may be noted in this vast sequence. Some of the variations are quite brilliant, some unusually imaginative, some funny (both intentionally and otherwise), and some just plain dull. There are not too many really dull ones, though, and there is no need, after all, to feel compelled to digest all of this at a single sitting. One of the more interesting variations is the three-movement piece by the Archduke Rudolph, which ends with what seems to be a reminiscence of the opening of Beethoven's Eighth Symphony. Carl Czerny's variation is one of the dull ones, but his coda has more to offer: it is a rather overt hommage a Beethoven, including a hint at the Mozart aria ("N'ote e guerra flatu
car," from Don Giovanni) used by Beethoven in his own Diabelli set.

Collectors may wish Telefunken had followed Diabelli's example and released the Beethoven whole work Part II separately. Rudolf Buckhinder gives a generally satisfying account of the Beethoven, but it is not a performance one would choose in preference to Brendel, Serkin, Schnabel, Richter-Haaser, or Stephen Bishop. In the lesser-known works he leaves nothing to be desired and he has evidently given some time and thought to these fifty-three pieces, and sets each one forth in its individual character. Telefunken has captured the sound of his Steinway with exemplary realism. The accompanying leaflet is a butte-variation on its music, for it contains brief biographical sketches of Diabelli and his fifty collaborators of Part II, and pictures of him and thirty-eight of those gen-
tlemen, as well as Ludwig Finscher's concise but informative annotation. R.F.

Domingo Conducts Milnes! Milnes Conducts Domingo! Bizet: Carmen: Votre toast. Massenet: Héroïdade. Vision fugitive: Compt. I. I. Auvent de quieter ces liens. Gounod: Andante. Chéne: Neve riché della patria. Mascagni: Cavalleria Rusticana: Il cavallo scalpitante. Placido Domingo (tenor); New Philharmonia Orchestra, Sherrill Milnes (bass); London's Phase 4 series—just as it was to assemble the elements he did for the earlier album called "The Impressionsists." Weill's music from The Three Penny Opera is the essence of German music-hall jazz of the Twenty-
ties, sticking out its tongue to flash its tawdry wares with a deliberate yawn that conceals the restless, revolutionary bitterness beneath the banal melodies that express to perfection the play's ambiance of cynicism, poverty, and corruption. Gershwin's ingenious, witty, and entertaining Variations on I Got Rhythm represent a more lighthearted, exuberant, sly use of jazz combined with the resources of the symphony orchestra and concert piano on quite another level; the piece never fails to entertain and strut its stuff beguilingly. Mil-
haus's ballet based on the African legend of creation antedated Gershwin's Rhapsody in Blue by a full year. It is endlessly interesting rhythmically, paints an atmospheric sound picture of sensuality and primitive modernism with enormous skill, and deserves the wel-
come back it has been getting in recent years on records—quite aside from its historical musical importance. Finally, Stravinsky's four-and-a-half-minute wry encounter with the Odilium in Rite is a treasureable gem from the century's reigning musical master. Unfortunately, Mr. Herrmann's conducting does not seem to be on a par with his program-making. The Weill suite is done with an admirable feeling for its style but nevertheless rather woodenly; the Gershwin is arty and slow to the point of dragging pretension—

(Continued on page 125)
DMITRI SHOSTAKOVICH'S First Symphony, composed as his conservatory graduation piece when he was eighteen, enjoyed international success from its very first performance. Its brilliant soloist, David Oistrakh, under Vasily Leopoldovich Blashkov conducting the Leningrad Philharmonia Orchestra recording of around 1934 to the latest one by Kiril Kondrashin. Listening to Kondrashin's new recording for Melodiya/Angel, I marvel at how well the piece stands up as both music and sonic rhetoric. There is absolute formal mastery here — overwhelming fire and imagination as well.

Kondrashin, in my opinion one of the best of the veteran Soviet conductors, takes a surprisingly mellow view of the First Symphony the opening pages, with their multi-meter polyphony for strings, are something of a tour de force for the period, as music the piece is no match for the First Symphony. The middle section is entertaining — it has its counterparts and sharp blotches of instrumental color, but the final chorus, "To October," is sheer rah-rah stuff reminiscent of the West Point cheering section at an Army-Navy football game. Just as Shostakovich's Fourth Symphony had enough ideas in it for a dozen works, so the Second is over-full of mere devices; still, it is good fun for an occasional hearing.

Melodiya/Angel has coupled the Second Symphony with the First on their new recording we have yet had of the Eighth Symphony. The reading is fine and suitably broad — spect - absorbing in content, brilliantly written, masterly in every respect. I find this work, like the Seventh Symphony, masterly in every respect — absorbing in content, brilliant in form, written for the soloist, and displaying total command of its materials. The opening slow movement, a nocturne, is intensely lyrical with a fine use of subtle pinpoints of color from an orchestra devoid of trumpets and timpani, but with a full complement of brass, plus celesta, xylophone, and two harps. The scherzo is brilliant and piquant in the best Shostakovich manner, but the crown of the work is the majestic passacaglia, which progresses to the scintillating Burlesque finale by way of a singularly challenging cadenza.

David Oistrakh, to whom the concerto was dedicated, recorded it with Dmitri Mitropoulos and the New York Philharmonic for Columbia at the end of 1955, during the course of his first visit to the U.S., but to my mind that superb performance was marred by recording that put the soloist in the spotlight at the expense of the all-important orchestra. Though there have been other recordings since, it has taken until now to come up finally with a first-rate stereo recording of one of Shostakovich's finest works. Angel is to be complimented on really getting it all together: David Oistrakh is again the soloist, the composer's son Maxim is the conductor, and Shostakovich's père was on hand to supervise. One can assume that this is the definitive recorded performance from the composer's point of view. It certainly sounds superb to my ears.

Three new releases inspire a short disquisition on DMITRI SHOSTAKOVICH by DAVID HALL

Clearly a decision on whether to acquire the new disc depends on one's preferences in repertoire coupling. The excellent alternative versions of the First Symphony by Bernstein for Columbia and Weiller for London offer the lightweight Ninth Symphony. Ormandy's First (recorded under Shostakovich's supervision), also on Columbia, offers a superb version of the Cello Concerto with Rostropovich. I consider the latter disc indispensable, but I am still drawn to the Kondrashin recording for its highly convincing and individual interpretation.

The Shostakovich of the Symphony No. 8, in C Minor, is a very different composer from the brilliant smart-aleck of the earlier works. The Seventh and Eighth Symphonies stand as Shostakovich's epochal commemoration of the Russian people's battle for survival against the German invasion. One has only to read the accounts of the siege of Leningrad and of the battle of Stalingrad to get some realization of what was at stake for the Russians (and ultimately for the Western Allies). If the Seventh Symphony can be taken as a rallying cry, the Eighth is surely a harrowing statement of the human tragedy of war. Both symphonies, from a musical perspective, are masterly in every respect, with a fine use of subtle pinpoints of color from an orchestra devoid of trumpets and timpani, but with a full complement of brass, plus celesta, xylophone, and two harps. The scherzo is brilliant and piquant in the best Shostakovich manner, but the crown of the work is the majestic passacaglia, which progresses to the scintillating Burlesque finale by way of a singularly challenging cadenza.

David Oistrakh, to whom the concerto was dedicated, recorded it with Dmitri Mitropoulos and the New York Philharmonic for Columbia at the end of 1955, during the course of his first visit to the U.S., but to my mind that superb performance was marred by recording that put the soloist in the spotlight at the expense of the all-important orchestra. Though there have been other recordings since, it has taken until now to come up finally with a first-rate stereo recording of one of Shostakovich's finest works. Angel is to be complimented on really getting it all together: David Oistrakh is again the soloist, the composer's son Maxim is the conductor, and Shostakovich's père was on hand to supervise. One can assume that this is the definitive recorded performance from the composer's point of view. It certainly sounds superb to my ears.


hopelessly grounded compared with the vivacious version by Earl Wild and Fiester on the RCA label: Le Création du Monde lacks the necessary acerbity which the composer brings to it under his own direction: Routine, too, contains a bit too much musical vermouth for the dry tongue it needs. But the recorded sound is gorgeous, and Mr. Herrmann is blessed with a magnificent ensemble. And the four works taken together certainly do offer a profile of the sound of “symphonic" jazz at its best.


Performance: Wise
Recording: Tapes from live performances

This is a sequel to the very captivating "Sic Transit Gloria Mundi" recital by Arthur Loesser previously issued by the International Piano Library. That album was devoted to music by forgotten composers: this one features forgotten works by well-known composers. All of the music here was recorded at faculty recitals at the Cleveland Institute of Music, where Loesser taught for many years before his death in 1969. Arthur Loesser was a genial and witty man as well as a musician of the first mark. He had an intense interest in everything, music above all, and was certainly not the man to restrict himself to the life of the touring concert performer playing a handful of programs and pieces hither and yon.

One of the charms of the earlier recording was Loesser’s own comments, but here his voice is heard only once, just before the final little Mozart Gigue. And technically his playing is nowhere near the level of the other recital. But the man’s wit and musicality always come through.

All of this music was worth reviving, but I think the outstanding piece is the Schumann Sonata—also referred to as the Concerto Without Orchestra and generally called Sonata No. 3 (although it was in fact the second in order of composition). By any name or number, it is a masterpiece and I regret only that Loesser chose to cut the last movement so drastically. In spite of all my reservations, I enjoyed these performances, and they are worth listening to. Arthur Loesser was a wise man. Beneath the ironic exterior he liked to affect, there was always a great deal of human insight. The sound is nothing special, but it will do. The set comes with a booklet of pictures, material on Loesser, and his own program notes.


Performance: Uneven
Recording: Fair

“Together for the first time on records,” says the special label affixed to this release. True, but Tebaldi and Corelli should have recorded together about a dozen years ago, when the results would have been spectacular.

It is the long and torrid love scene from Francesca da Rimini that elicits the best overall performance from the pair: they are convincing both in the early moments of restrained passion and in the end, when restraint gives way to the outbreak of emotion. The remainder of the recital offers a very brief glimpse from Adriana Lecouvreur, the opera that united these artists in better days, and the duet from Manon Lescaut, in which Tebaldi is a too mature-sounding Manon and Corelli a fervent but undisciplined Des Grieux. It is interesting to hear Tebaldi in the unaccustomed roles of Amneris and Laura, but the scenes are not particularly memorable. There are flashes of former splendor, but for the most part the concentration takes too much out of both artists to leave room for attention to metric accuracy, niceties of phrasing, or even purity of intonation. Their fans, however, will be forgiving. The orchestral contribution is subdued and unassertive, the recording quality undistinguished.

G.J.

SOME CASSETTES
JUST CAN’T COPE.

Ever buy a cassette that sticks and jams... sometimes gives up before it even gets started? How about the ones that pick up dirt better than a vacuum cleaner? And these aren’t just the bargain cassettes either. Some of these things are so-called premium grade products.

If any of this sounds familiar to you, you’re not using Columbia “Fail-Safe" cassettes. Columbia cassettes have graphite impregnated Mylar slip sheets and self-lubricating Delrin rollers to prevent sticking and jamming...any kind of orneriness. And sealed windows to keep out dust, dirt... anything that could give you problems.

We use gamma-ferric oxide low noise/high output tape. So it picks up every sound you hear...and then some. They can really cope.

We call Columbia cassettes “Fail-Safe." You’ll call them "Fantastic."

COLUMBIA
Blank Recording Tape

Columbia Magnetics, CBS, Inc., 51 West 52nd Street, New York, N.Y. 10019

CIRCLE NO. 13 ON READER SERVICE CARD
TELEVISIONS AND MUSICAL INSTRUMENTS, Discount Sound, P.O. Box 2280 Industrial Boulevard, Norman, Oklahoma 73069.

SCOTCH MAGNETIC TAPE (Used)

#150, 1800 ft., 7 inch reel, mil plastic, recorded base, bulk erased (no box) $99.00, plus $5.00 shipping and handling (min. order $10.00); slightly used, 100% intact, fiberglass reels, 3 1/2 hole, 50 mesh taln, $1.00 each plus shipping and 10%.

SAXITONE TAPE SALES

1776 Columbia Road, N.W., Washington, D.C. 20009.

OPERATA TAPES—Open Reel and Cassettes—Historical performances of past 40 years. Unbelievable treasures and rarities. Also LP records. Ed Rosen, Box 97, Freepoint, N.Y. 11520

THUNDERBIRD WEST, Ltd., 1520 W. 8th Street, Oklahoma City, Oklahoma 73107. (405) 524-8588. 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 Box 157, Hendersonville, Tennessee 37075.

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.

1 to 3 tape decks. Dubie Tape Aid Corp., Dept. E, 2305 N. Broadway, Oklahoma City, Oklahoma 73107. (405) 524-8588. Send check to

NEW! Record, Dub, Edit, Mix, Fade, Monitor Eliminate "jumbles" of tangled wires with Dubie Tape Aid control for 1 to 3 tape decks. Dubie Tape Aid Corp., Dept. E, 205 N. Penn, Oklahoma City, Oklahoma 73107. (405) 524-8588.

SCOTCH new low noise tape 1/2" metal 360's: up to $30.00. Reels, POS 88338, Dunwoody, Ga. 30338


RARE Soundtracks show albums. Show Music, Box 12, 1776 Columbia Road, N.W., Washington, D.C. 20009.

THROUGH YOUR LISTEN TO TV LENS THROUGH YOUR TELEVISION

126 STEREO REVIEW MARKET PLACE

STEREO SPECTRUM, the money savior for hi-fi buyers, write us, Box 1815, Miami Beach, Florida 33139.

LISTEN TO TV THROUGH YOUR TELEVISION

PHONES AND DEVICES, 7222 Fourth Ave., Yorkville, N.Y. 10021.

RECORDS

SHOW ALBUMS, Rare, Out-of-Print LP's: 50 pg. list. 50 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; while jackets last. Postage $1.00. Record House, Hillburn, N.Y. 10931.


COLLECTOR'S Soundtracks. Mint. List 25 cents. Jemm's, P.O. Box 157, Glenview, Ill. 60025.

FILM-STAGE soundtracks. Extensive free list. Box 7342, Miami, Fla. 33135.


MUSICAL INSTRUMENTS

30% DISCOUNT name brand musical instruments. Free Catalog, Freepoint Music, 4552 Route 113, Mehlville, Mo. 63119.

30% +DISCOUNTS Name Brand Musical Instruments. Free Catalog, Continental Music, Dept. J, P.O. Box 3001, Garden City, New York 11520.

QUADRAPHONIC ADAPTER...$12.95 postpaid. Converts any stereo into 4 channel, concert hall, sound. Free information. Electro-Research, P.O. Box 20895, Ferndale, Michigan 48220.

TUBES

FREE Catalog—Film soundtracks, shows, Lowest prices! Roseman, Box 19083, Philadelphia, Pa. 19134.

FREE CATALOG, large variety-rare records, tapes-lowest prices. Goodtimes, P.O. Box 30032, Chicago 60603.

FOR DISCOUNTS on records and tapes send 25 cents for catalog. Kevin Heinrich, P.O. Box 122, Haynes Center, Neb. 68032.

QUADRAPHONIC RECORDS AND TAPES—ALL labels. Over 500 items—90% discount prices! For your illustrated catalog the world's most complete quad catalog, write


SOUNDTRACKS—Large Free Catalog. Star-50, Box 850, Arroyo Grande, Ca. 93402

FOR SALE

QUADRAPHONIC ADAPTER, $12.95 postpaid. Converts any stereo into 4 channel, concert hall, sound. Free information. Electro-Research, P.O. Box 20895, Ferndale, Michigan 48220.

WANTED


MRF RECORDS WANTED. Please send lists to: Conway, Box 81, P.O. Mercier, N. Australia

JBL Drivers and Horns wanted. Apt. 1, 200 9th Street, L. Lauderdale, Fla. 33215.

JENSEN 5610 Speaker. Moer, 320 Noesie Midland, Michigan 48640.

GOVERNMENT SURPLUS

JEPS, TRUCKS, Cars From $3150.00. Airplanes, Type writers, Clothing, Multimeters, Transceivers, Oscilloscopes, Computers, Computers Equipment, 100,000 Surplus Bld Bargas Direct From Government Nationwide Typically Low as 2 cents on $20 Parts Complete Sales Directory and Surplus Catalog $1.00 (Deductible First $10 Order From Included Catalog). U. S. Surplus Disposal, 2200 Fuller 6108 SRV, Ann Arbor, Michigan 48103.

RUBBER STAMPS

RUBBER address stamps. Free catalog, 45 type styles. Jackson's, Box 443G, Franklin Park, Ill. 60131.
ERUPTION OF OPPORTUNITIES

12701 EXCITING package, descriptive literature, with free gift! All money back. Write: Action Ad Clock, Room AC-252 DC, East Rockaway, N.Y. 11518.


MAIL ORDER MILLIONAIRE helps beginners make $500 money! Start with $15.00 - Free Proof. Torrey, Box 318-N Ypsilanti, Michigan 48197.

I MADE $40,000.00 Year by mailorder! Helped others make $500,000.00. Start with $15.00 - Free Proof. Torrey, Box 318-N Ypsilanti, Michigan 48197.

I ENTHUSIASTS WANTED!! Earn more than just spare time. Opportunity to earn good money. Write: Stereo, representatives to sell audio equipment to students during HI-FI.

REPAIRS AND SERVICES

SPEAKER Repairs Allen, EV, EMI, etc. ALTEC Diaphragm in stock. AST, 281 Church St., New York, N. Y. 10013.

RECORDS, TAPES, CASSETTES, COPIED (one or more). Also complete record production and demos from your tapes. Trufitone Records, Box 830, Dept. S, Saddle Brook, N.J. 07662 (201) 686-9332.

PERSONALS

MAKE FRIENDS WORLDWIDE through international correspondence. Illustrated brochure free. Home, Berlin 11, Germany.

RESORTS & TRAVEL


MISCELLANEOUS

WINEMAKERS. Free illustrated catalog of yeasts, equipment. Semplex, Box 122760, Minneapolis, Minn. 55412.


EXCITING package, descriptive literature, with free gift! All for 25 cents. Exhibitor, 16-A Oakley Ave., Monticello, N.Y. 12701
MICROPHONE MIXERS

To most people, a “mixer” is a multipurpose kitchen appliance. In audio recording, however, it’s an indispensable device that combines at least two—but probably many more—different signals into a single, controlled composite. Why do you need a mixer? Suppose several microphones are required to capture the full sound of a group of performers or even a single instrument. You can’t just plug them all together like a.c. plugs into a wall outlet, for that could cause distortion and frequency-response losses arising from what is called “impedance mismatch.” Further, to achieve the desired acoustic balance—between instruments and a vocalist, for example—each of the input sources to be combined needs its own individual volume control. So you use a mixer.

However, picking a mixer that best suits your needs (and budget) requires careful investigation. To begin with, there are two basic types: passive and active. The passive units are quite inexpensive (under $10) since they consist of little more than several isolating resistors and volume controls whose outputs are connected together. I do not recommend a passive mixer for high-fidelity recording, however, for its controls can only turn down the level of any microphone plugged into it, and this may mean a poorer signal-to-noise ratio.

Active mixers, by contrast, use tubes or semiconductors to boost each mike’s signal before it reaches its respective level control. Thus the signal never drops below its original strength. Even here you must be careful, however. A few such active mixers supply just enough amplification to overcome their internal losses, and so must still be plugged into your recorder’s microphone inputs. That’s acceptable if your own machine’s mike circuits are themselves relatively free of hum and hiss, but in my view many are not. How can you tell?

A simple experiment will give you the answer. With your mikes plugged into your recorder but with no sound being fed to them, start recording while simultaneously monitoring from the tape through headphones as you slowly turn up your microphone record-level control. (If your machine does not permit monitoring off the tape, just use its index counter to make a log of when the record control is at each of the numbered settings so you will know where you are when you play back the tape.) At some point you will notice that the playback hiss level will not just increase gradually, as you’d expect it to, but will take a sudden jump. Turn the record-level control back to just below that point and start talking into the mikes normally. If your VU meters respond by swinging far into the red, well and good: your mike circuits are quiet enough for your mikes.

Incidentally, microphones whose impedance is too low for your recorder may make it appear that the recorder’s inputs have insufficient gain. If you suspect such an impedance mismatch, check with the manufacturers of the recorder and the microphone. If you’re told that your otherwise excellent mikes don’t match your recorder’s input, you then have a choice of using input-matching mike transformers or using a mixer that provides a choice of high- or low-impedance inputs. The microphone company will be able to advise you on the relative costs and advantages of each approach. But aside from the impedance-matching question, for reasons involving noise and gain you should look for a mixer that has an output of about one volt or more.

Needless to say, it would be a good idea to connect the mixer to your recorder and try the test outlined above on the mixer itself. You may find that some units are so noisy that they are poor buys despite their flexibility or low cost. A top-quality mixer, on the other hand, is almost always quieter than your recorder’s mike preamps, and can often be used plugged into the recorder’s high-level line inputs—even on occasions when you don’t need its mixing facilities.
Our most expensive turntable has direct drive. So does our least expensive.

When Technics introduced direct drive, we set new standards for turntable performance. That’s why we use direct drive exclusively in all Technics turntables.

No other system measures up to direct drive. Wow and flutter are less than 0.03% WRMS. And rumble is down to -65dB (DIN A) and -70dB (DIN B).

Our DC motor has no noise- or static-producing brushes and virtually none of the hum normally found in AC motors. It reaches playing speed in half a revolution and has electronic speed control that prevents speed changes due to line fluctuations.

All Technics turntables have illuminated stroboscopes, cast aluminum platters and variable pitch controls. The SL-1200 also has a precision tone arm, viscous damped cueing and low-capacitance 4-channel phono cables.

So does the SL-1100A but with a heavier platter, bigger motor and longer tone arm.

And the SP-10 is for those who insist on choosing their own tone arm.

No matter which Technics turntable you choose, you get the finest drive system that money can buy. But don’t take our word for it. Read the reviews.* And you’ll agree.

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

*5P-10 Audio, 8/71; Stereo Review, 9/71.
SL-1100A: Stereo Review, 7/73; High Fidelity, 9/73.

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

Technics by Panasonic
About five years ago, we developed a new speaker—a studio monitor for the professional recording business. It had the big sound that the studios required, but it was a compact. The size of a bookshelf speaker.  

Instant success. (Very flattering, too. It’s nice to have a talented, opinionated recording engineer pick your speaker to go with his $100,000 sound system.) We sold more than we dreamed possible.  

Then we figured out why:  

The professionals were taking our studio monitors home, using them as bookshelf speakers.  

Well, if you were JBL, what would you do?  

That’s what we did.  

JBL’s Century 100. $273 each. The size of a compact studio monitor. Almost its twin, in fact, except for oiled walnut and a sculptured grille that adds texture and shape and color.  

Come hear JBL’s Century 100. But ask for it by name. With its success, some of our admiring competitors have begun using words like “professional” and “studio monitor” to describe their speakers. They’re only kidding.  

Century 100. The perfect copy. From the people who own the original.
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 **SUPERSCOPE.**
The Koss HV/1LC.
A new twist to High Velocity Sound.

When you've already developed the finest high velocity Stereophone in the world, you've got to come up with a new twist to top it. And that's the HV/1LC. The world's first lightweight, hear-thru, high velocity Stereophone with volume-balance controls on each ear cup. So when you want to hear more of the violins and less of the bassoons, they're right at your fingertips.

But then, the new HV/1LC isn't the world's finest high velocity Stereophone just because it features volume-balance controls. 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 can hear your favorite music like you've never heard it before and still be able to hear what's going on around you.

And speaking of sound, the HV/1LC is in a class all its own. Why? Because Koss engineers not only created a unique new ceramic magnet, but they also developed a way to decrease the mass of the moving diaphragm assemblies. The result is a fidelity and wide-range frequency response unmatched by any other lightweight, hear-thru Stereophone.

But there's only one way to hear the difference the HV/1LC makes. See your Audio Specialist for a live demonstration.

And write for our free full-color catalog, c/o Virginia Lamm. The new HV/1LC in ebony teak and champagne gold with rosewood grained inlays should add a beautiful twist to your favorite music.