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First Reviews 17 Four-Channel Discs and Tapes

Rock's influence on
The New Generation of Musicians
THE FISHER PHILOSOPHY OF EQUIPMENT DESIGN. PART 4.
COMMON SENSE IN AMPLIFIER CONTROLS.
This is the fourth of a new series of ads about the major conceptual differences between Fisher components and other makes. It is not necessary to have read the first three ads before reading this one, but see footnote in italics below.

Every dyed-in-the-wool audiophile has heard himself accused of preferring knob twiddling and switch throwing to music. The accusation is, of course, monstrously unfair and probably motivated by envy, but it does raise a valid question: Is it strictly in the service of music that there are all those controls on the front panel?

The answer is simple: It depends on the manufacturer. Fisher does not believe in putting gingerbread on a high-fidelity component. Every control on a Fisher receiver or amplifier must have a well-defined function related to the enjoyment of records, tapes or broadcasts and must be clearly helpful to the critical user at least occasionally. This commonsense approach to controls is an important part of our "balanced component" philosophy.

It is also part of this philosophy that price must not be allowed to influence the quality of controls on a Fisher component, only their number. Obviously, a higher-priced component will have a greater number of controls for special requirements, but the essential controls are designed the same way on the lowest-priced and the highest-priced Fisher.

Among the controls that have to do with amplifier functions (FM tuning will be the subject of the next ad in this series), the following are absolutely basic to the Fisher philosophy in receivers and amplifiers.  

1. The four-way speaker selector (main, remote, main + remote, phones) comes with every model, regardless of price. We believe that the bedroom, den and playroom have assumed almost equal importance with the living room in high-fidelity listening and that a single pair of speakers per family will soon be a thing of the past.

2. The volume control is always of the loudness-compensated type, but on every model there is a loudness contour switch that inserts or removes the compensation at the option of the user. (Nonremovable loudness contour compensation can result in distressing boominess when the actual listening level in a given room is not what the manufacturer anticipated for each setting of the volume control.)

The amount of compensation is set to correspond with the Fletcher-Munson curves for the average human ear— and not just in the bass region but at high frequencies as well.

3. The tone controls are without exception of the highly preferable Baxandall type. Named after the English engineer who originally developed them, these feedback-type controls have a uniquely graduated boosting and cutting action, operating only at the frequency extremes at their lower settings and affecting the midrange only in their most advanced positions (see Fig. 1). This is a much more sophisticated kind of correction, corresponding more closely to high-fidelity needs, than the "semaphore" action of ordinary bass and treble controls, which almost invariably unbalance the midrange regardless of the degree of boost or cut desired (see Fig. 2).

4. Filters are provided on all units: one or two for the highs and, on some models, one for the lows. Wherever possible, they are steep-cutoff networks with a slope approaching 12 dB per octave.

5. The tape monitor switch has become a way of life with Fisher. Anyone who buys a Fisher component, at any price, will be able to monitor a tape recording while he is making it, switching back and forth between the program source and the tape recorder at will. You cannot make a good tape unless you can hear what you are doing.

The only possible objection to these strictly functional, commonsense amplifier controls is that we offer no toys, no spaceship levers and gauges, for the secret daydreamer to play engineer with.

To that we can only reply: When you own a Fisher component, you don't need daydreams.

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The next ad in this series will explain how the Fisher design philosophy applies to the problems of FM tuning. Others will follow. Don't miss any of them. But just in case you do, you may want to get on the mailing list for a free reprint of the entire series. To obtain this valuable booklet, or to receive free technical literature on any of nearly a hundred Fisher products, write to Fisher Radio, Dept. HF-4, 11-44 45th Road, Long Island City, N.Y. 11101.
Beware of Stylus Carnivorous, The Vinyl Cannibal.

Stylus Carnivorous may look cute but his looks are deceiving. He’s definitely a character to avoid. And you can avoid him easily enough simply by understanding the following basic facts about the stylus in your phonograph cartridge.

The diamond tip of a stylus has a tough time playing records month after month. Even with today’s minimal tracking force, a diamond isn’t forever. (At most, the best diamond stylus may last some 500 hours, or long enough to play about 1100 record sides.)

How do you avoid Stylus Carnivorous? Very simple. Just take your cartridge to your high fidelity dealer for a checkup about every six months. Our Pickering dealers will be happy to do this for you—free.

If your cartridge is a Pickering (and it just might be, since manufacturers install more Pickernings on record players than any other cartridge) and if you need a new stylus, be sure to ask for the precise Pickering replacement. Ask for the one that matches the stylus originally engineered for your equipment.

So if your stereo has been sounding strange, maybe it’s not your stereo. Maybe it’s old Stylus getting Carnivorous.

For our free brochure, "Questions and Answers About Cartridges and Styli" write to Pickering and Co., Inc., Plainview, N.Y. 11803.

All Pickering cartridges are designed for use with all 2 and 4-channel matrix derived compatible systems.

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The Old School Ties

This month for the first time we have an article by Joan Peyser. For those of you who read the entertainment section of the Sunday New York Times, Joan's byline will be familiar from her many revealing and provocative interviews of musicians. Her article here should prove just as provocative.

I had asked her to investigate the influence that the rock era of the late '50s and '60s had on today's serious young musicians. The results were hardly what either of us had expected.

In our first meeting to discuss the project, we discovered that we had once been classmates—Mrs. Tarlowe's class at the High School of Music and Art in New York. We chatted about other former classmates, and that evening I was moved to find my old yearbook and spend a few nostalgic hours with it. Some of the kids had gone on to make public names for themselves. But within a few months another classmate was to become even better known.

Joan had left school before graduation, so she didn't appear in the book. But the others did. I was especially taken by the squibs that accompanied the yearbook photos, for at times they proved prophetic. Milton Glaser, for instance, is today one of the most prestigious American commercial graphic designers, and the only artist of that persuasion (along with others from the Push Pin Studio he heads) ever to be exhibited at the Louvre. David Wise, the Washington Bureau Chief of the New York Herald-Tribune before that paper's demise, is best known as the author of The U-2 Affair, The Invisible Government, and The Espionage Establishment and is currently working on a book about the dissemination of governmental information. Here is what our yearbook showed about them (Overture was the school paper, which David edited):

MILTON GLASER
He's so good when using paint
That Picasso filed complaint.

DAVID WISE
Overture's star is on the rise,
Watch that byline: David Wise!

But David wasn't our only classmate to become fascinated with undercover operations. Here is our class treasurer:

CLIFF IRVING
Cliff, at six foot two you'll see,
Maestro of our treasury.

Admittedly, the above has little to do with high fidelity. But it intrigued and amused me, and I thought it might do the same for you.

Besides, why should Life have all the fun?

Next month we will let you know how to be secretive too, via STEREO'S ULTIMATE INTIMACY, a survey of new headphones. And in A CLASH OF EGOS, we will look at the personal relationships within the Eugene Istomin-Isaac Stern-Leonard Rose Trio.
We enjoy telling you how each aspect of the 12 year basic research program on sound reproduction contributed to the unconventional features found in the Bose 901 and 501 DIRECT/REFLECTING® loudspeakers.* We also take pride in quoting from the unprecedented series of rave reviews because to us they are like awards won for the best design †.

However, it is important to realize that the research and the reviews are of only academic interest unless the speakers really are audibly superior. It is equally important to realize that YOU are in every sense the ultimate judge, for you are the one who lives with the sound you choose.

So—forget the rave reviews and the research and sit in judgement of two fascinating experiments. Take your most exacting records to any franchised BOSE dealer and:

1. Place the BOSE 901’s directly on top of any other speakers, regardless of their size or price, and make an A-B listening test with your records.

2. Place the BOSE 501’s beside (with at least 2 feet clearance) any other speaker using woofers, tweeters and crossovers and perform the A-B listening test. (Don’t ask the price of the 501 before the test.)

Then, just enjoy your records. When you finish you will know why we get much more satisfaction from our work than could ever be derived from profits alone.

P.S. If you already own expensive speakers, many dealers will lend you a pair of BOSE 901’s for an A-B in your living room, where the acoustics are generally far superior to those of the speaker-lined showroom.

* Copies of the Audio Engineering Society paper, ‘ON THE DESIGN, MEASUREMENT AND EVALUATION OF LOUDSPEAKERS’, by Dr. A. G. Bose, are available from the Bose Corp. for fifty cents.

† For copies of the reviews, circle our number on your reader service card.

You can hear the difference now.

Unless they’re audibly superior it’s all academic.

The BOSE 901 and BOSE 501 are covered by patent rights, issued and pending.
This is not a speaker.

It's the missing part of your speaker.

What's missing from your speaker, no matter how much you paid for it, is a high-frequency response that remains genuinely flat off axis. (The 15-kHz output of a top-rated $250 speaker, for example, is down 12 dB at 60° off center.)

The new Microstatic high-frequency speaker system is designed to give you this missing response when you connect it to any medium or low-efficiency speaker of any size or design. And we mean ±2 dB from 3.5 kHz to 18 kHz over a 180° angle!

Microstatic won't change the sound quality of a top-rated speaker on axis, but it will make a dramatic improvement in the stereo image and overall transparency from any listening position in the room.


For copies of these rave reviews plus detailed literature, write us directly. Microstatic is priced at $117 a pair (slightly higher in the West).

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8 Westchester Plaza
Elmsford, N.Y.10523

*Patent Pending

CIRCLE 49 ON READER-SERVICE CARD

letters

Four Channel Sound

Four-channel sound, in my opinion, is merely a mass advertising scheme: From my observations quadraphony is a novelty along the lines of the fat lady at a circus—an unusual sight at first but after a while the novelty wears off.

However, four-channel sound is not without a purpose. It is making the record and audio industry a great deal of money. The record companies are charging higher prices for their products and the audio companies are making higher-priced equipment on which these higher-priced records can be played.

The victim of this contrived plot is the not-so-rich music listener who is having trouble enough paying for two-channel records. And if our music listener listens to anything other than the Top 40, he is having a hell of a time just trying to find the record he wants.

Being a realistic person I know that this letter will have absolutely no effect on the development of four-channel sound. With all the money already invested and with such great potential, the recording industry is not about to kill off its golden goose just because one person doesn't want to play the game with them. However, I did want to state my token opposition to the industry, even if nobody listens.

Thomas E. Wall
Ft. Worth, Tex.

Winded

Glenhall Taylor's article "Windy Song" [January 1972] tried to cover too much too briefly resulting in a rather shallow presentation. The theater-organ section of the discography was simply not representative of what is available. With a little digging one can find many excellent theater organ records tucked away in record shops. Mr. Taylor's discography listed only twelve recordings by mere seven artists. Surely there are many other talented artists around. Nothing was indicated about the instruments on these records; there are others besides the "Wurl." An exciting theater organ record was released a few months back, "Big Bold and Billy: Billy Nalle at the Organ of Long Island University" (Project 3, PR 5053, $5.98). Billy Nalle is one of the contemporary greats; this record deserves a formal review. Decca/Vocalion may not have done the best job of preserving the legendary Jesse Crawford on disc, but a safe anthology would be "The Best of Jesse Crawford" (Decca DXS 7171, $9.96). One of the most familiar organs in the country is the one at Radio City Music Hall but the discography failed to suggest even one recording available, for instance Victor LS 3327, $4.98. Also unmentioned were any recordings of the theater organ playing music to accompany movies, which was one of the primary reasons for the instrument. Warner Brothers' engineers did a fine job on their Gus Farney release ($1 359, $1 409, $1 433, $4.98 each). There are records by Ashley Miller, Ray Boh. Lee Erwin, and many others that deserved attention. Perhaps reference could also have been made to a mail-order club that produces its own monthly record of different instruments and artists (Concert Recording, Lynwood, Calif., 90262).

Donald R. Hager
Hyde Park, N.Y.

The biographical footnote to "Windy Song" states that Glenhall Taylor is a "former musician." My question is, "How former?"

I have never read an article that created so many wrong impressions about organs. While Mr. Taylor is not wrong in his facts, to those of us who play the pipe organs of instruments he emphasizes in his article is so wrong that it is infuriating.

Mr. Taylor should have said something about the great revival of classical organ construction, the return to low wind pressures, positiv and the werkprinzip. It is true that there is some interest in salvaging silent movie theater organs, the "Mighty Wurlitzers," for home use, but the main thrust in organ construction since World War II at least has been a return to the classical, the baroque.

And, with one exception, the manufacturers of electronic noisemakers should never be...
Announcing an end to the age-old power struggle between the left and the right.

Every stereo receiver has two amplifiers. And in order to amplify, they both need power.
But until now, receivers have only had one power source. And that's been the source of a big problem.
When the left channel takes power, it's stealing from the right. Since the right also needs power, it doesn't give up without a fight. And in the ensuing battle, you lose.

Bass notes sound fuzzy. Treble becomes veiled. And the receiver tends to “break up” when you need it most—at high volume.

To put an end to the struggle, Harman-Kardon designed a new kind of receiver: the 930. The 930 is the first receiver with twin power. It has two entirely separate power supplies: one for the left channel and one for the right. That way, they peacefully coexist.
When one channel needs power it simply takes what it needs—without affecting the other. As a result, the 930 can handle enormous tone bursts at full volume without straining.

In fact, its distortion curve isn't even a curve. You can draw it with a straight edge. (Total harmonic distortion remains below 0.5% from 20 Hz to 20,000 Hz— at full rated output, 45/45 watts RMS, both channels driven simultaneously into 8 ohms.)
The 930 costs $369.95. Which is about what you'd pay for a good receiver without twin power.

So, the only question is which you'd rather have: War or peace.


The Harman-Kardon 930.
The first receiver with twin power.

CIRCLE 34 ON READER-SERVICE CARD
allowed to call their keyboard instruments "organs," even "electric organs." These squawkers have their place in rock-and-roll bands, but Bruckwude and Bach should be honored with a truly classical, correctly voiced instrument.

And Mr. Taylor should have known enough to have mentioned it!  

Joe Billings  
Hollywood, Calif.

Mr. Taylor replies: Mr. Hoger's contention that "wind songs" lacked depth is not one with which I shall argue; An in-depth history of the organ could not possibly be compressed to fit within the pages of HIGH FIDELITY. Nor can I quarrel with exceptions he takes regarding the discography that accompanied the article. I am fully aware it is selective and not definitive. One criterion that guided my choices was easy availability of the records; to list excellent but hard-to-locate disc would do a disservice to a potential purchaser. Hence, current Schwann listings were the principal guideposts.

I regret that Mr. Billings felt my article to be "infuriating" because of what he terms "wrong emphasis." Emphasis, I suggest, is something like beauty: It is in the eye of the beholder. Actually, I intended no emphasis; I merely tried to sketch an extremely brief history of the organ and its origins.

As for not mentioning the "great revival of classical organ construction, the return to low wind pressures, positives, the werkprinzip, etc., I can only reply that innumerable interesting details regarding the organ were left unsaid simply because of space limitations. To include every organ buff's favorite subjects (even were I qualified, which I'm not) would require an encyclopedic tome rather than a magazine article.

I agree with him that "organ" is a misnomer for an electronic keyboard instrument. How about "hammerorgan," or "blues organ," etc., etc. One wonders who is really to blame?

Perhaps manufacturers can explain why they continue to grind out more and more versions of worn-out workhorses? Really now: at $6.00 how many recordings of the Emperor Concerto can the average person afford? The October Schwann catalogue lists 35 of them, along with 23 of the Brahms B flat Concerto — yet only 1 of Rubinstein's 4 concertos is currently listed, only 1 of Moscheles' 8, only 3 of Field's 7. There are 33 recordings of Schubert's Unfinished Symphony and 24 of Dvořák's New World, but none of Arnold Bax's 8 symphonies, only 1 recording of Dvořák's First, Second and Third symphonies (part of a collection), and no listings of Saint-Saëns's first two symphonies. There are 159 recordings of Bach Cantatas (not including the set by the Musical Heritage Society) but only 1 of Elgar's cantatas is on record. Tchaikovsky's Violin Concerto appears 22 times, but only 2 of Spoer's 15 concertos are listed, and only 2 of Vieuxtemps's 29. Only 4 of Bruck's works are left and only 15 of Reger's 147 opus numbers are represented, and this only scratches the surface.

Perhaps if the majors would take a cue from someone like Vox, who is releasing new material all the time (and much of it at budget prices to boot), they could stop blaming us for their marketing failures.

Mr. Gilmore continues, "Any tracker organ in good mechanical condition, as Alkmaar certainly is, is capable of speaking at almost any sane tempo."

Please be informed that Mr. Gilmore is entirely wrong, and that no one with knowledge would make such sweeping statements. The playing action, or "touch," at Alkmaar is quite abnormally heavy. It inevitably affects performance, though not necessarily to their detriment. Considering the size of the instru-
Listen carefully and you can still hear some audiophiles refer to the record stylus as... "the needle." Although we are not about to quibble over semantics, we would like to go on record, so to speak, as observing that the stylus of today bears no more resemblance to a needle than it does to a ten-penny nail. In fact, it is probably the most skillfully assembled, critically important component in any high fidelity system. It must maintain flawless contact with the undulating walls of the record groove — at the whisper-weight tracking forces required to preserve the fidelity of your records through repeated playings. We put everything we know into our Shure Stereo Dynetic Stylus Assemblies — and we tell all about it in an informative booklet. "Visit To The Small World Of A Stylus." For your copy, write:

Shure Brothers Inc.
222 Hartrey Ave., Evanston, Ill. 60204
Bringing up the rear.

The ADC 404A.

If you’ve hesitated about making the switch to four channel because of the complications posed by rear speaker placement, relax. We’ve got the answer. It’s our ADC 404A.

The choice of leading testing organizations for two channel systems, this unobtrusive, high quality, low cost speaker is also the perfect solution to the biggest hang up in four channel sound reproduction.

The ultra-compact ADC 404A (11½” x 7¼” x 8¼”) provides the clean, uncolored, well balanced sound normally associated with far larger and more costly systems. Best of all, its small size and light weight enormously simplify placement problems. Just place a pair on a back wall and almost before you can say four channel, you’re hearing it.

And once you’ve heard the 404A, we think you’ll agree that with ADC bringing up the rear, you’re way ahead.

I can only add that the Boulez Parsifal has profoundly altered my view of the work itself and Wagner in general. No small achievement for one recording.

Gregg Privette
Durham, N.C.

Mr. Hamilton replies: Mr. Privette raises an interesting point, one that in literary criticism has acquired a rather tony name, “the intentional fallacy.” In a reductio ad absurdum, the intentionalist position could be taken to mean that a poet whose work has been judged had need only announce that bad poetry was what he was trying to write away— ergo, he had done well and should be praised.

Not that Mr. Privette is taking such an extreme position—but it seems to me that the critic must attempt to judge first of all in terms of the composer’s requirements. In the review I did draw a distinction between the “Boulez approach” and its “flawed execution”—particularly because my own taste for sloppy playing and inaccurate singing was reinforced by the strong impression that these phenomena are not part of the conductor’s approach. And, if only because most people buy records in order to listen to them a record review should address itself to what is heard on the discs, rather than what is in the booklet. In this case there is much of interest and stimulation in the conductor’s essay (although I am not sure in what way some of his observations would affect actual performance), but nothing that improves the playing and singing that emerged from the speaker.

Bjoerling’s D Flats

When I read David Hamilton’s review of “The Art of Jussi Bjoerling” [September 1971], I was a little surprised at his surmise that Bjoerling had only once, in “Cujus animam” from Rossini’s Stabat Mater, recorded a D flat. But he did on at least one other occasion: in his recording of “Ich hab’ kein Geld” from Milücker’s Der Bettelstudent, recorded on April 28, 1938 (available in the United States on Roccus 5201). This D flat is healthy and youthful and really “tossed off.” Bjoerling was twenty-seven when he made this recording which, by the way, was in the same year as his “Cujus animam.”

Ole Anderson
Ramsle, Sweden
The Concord Mark IX cassette deck starts with an extremely low signal-to-noise ratio — better than 50 dB down. The Dolby Noise Reduction system reduces hiss by another 10 dB, and that's just the beginning. The deluxe Concord Mark IX has switch selected bias for standard and chromium dioxide tape cassettes. The narrow head gap and better than 100 kHz bias frequency provide extended frequency response from 30 to 15,000 Hz.

The Mark IX looks like a studio console and performs like one too. With pop-up VU meters, studio type linear sliders for individual control of input and output levels, third mike input for mixing in a center channel microphone, a 3-digit tape counter and a stereo/mono switch for more effective mono record and playback. And this brilliant panel lights up for power on, record and for Dolby.

And when the cassette is finished, Endmatic, a Concord exclusive, disengages tape and transport and returns the pushbuttons to off. And best of all, it's now available at your Concord dealer at a fair price for all of this quality, $249.79.

If you already have a cassette, open-reel or 8-track deck, the Concord DBA-10 Dolby tape adaptor can reduce hiss and improve performance. It will also improve your receiver's performance in playing back Dolbyized FM programs, $99.79.

Your Concord dealer also has a complete line of 8-track and open-reel decks, stereo receivers and cassette portables. Concord Division, Benjamin Electronic Sound Corp., Farmingdale, N.Y. 11735/ subsidiary of Instrument Systems Corp.

Concord Mark IX
Dolby Cassette Deck

CIRCLE 22 ON READER-SERVICE CARD
The Largest Recording Project in History

by Jack Hiemenz

Ernst Maerzendorfer—Haydn first to last.

The Musical Heritage Society is an American record company, but their Haydn Symphony project is Viennese from the roots up. Dr. Michael Naida, the Society's president, wanted it that way, wanted these performances to shimmer with a characteristically Viennese string sound, wanted the musicians to be natives of the land that was Haydn's source of inspiration. Accordingly, he picked the Vienna Chamber Orchestra, a composite of musicians from the Vienna Philharmonic and the Vienna Symphony. The recording sessions took place in that city, under the baton of Ernst Maerzendorfer of the Vienna State Opera.

That was over four years ago. The largest single recording project in history is now complete (see review, page 75). Paradoxically, Maerzendorfer is not particularly noted as a conductor of the symphonic repertory. Since his school days (he was a pupil of Clemens Krauss) his principal associations have been with the New York City Opera, the Philadelphia Lyric Opera, and the Opera Society of Washington.

Only in the past year, as an outgrowth of the Haydn project, has he made an American showing in anything outside the operatic repertory. This was last October, when he and the Vienna Chamber Orchestra spent a month touring the United States and Mexico—with Haydn, of course, dominating their programs.

Maerzendorfer is well into middle age, shortish, ruddy-faced, with thinning brown hair brushed straight back. Meeting him in a downtown Manhattan apartment, I find him with his spirits running high. There seems not a trace of weariness, though he has just completed his tour. To my confession that I am no expert of Haydn symphonies, he offers an optimistic reassurance: "That's all right. Before this interview is over, I make you an expert!"

Toward America he is brimming with enthusiasm. But then he has three very substantial reasons for his enthusiasm. His pretty blond wife is American. The cross-country tour has been a heartening success. And America is a good land for Haydn. Elaborating on the third point, he cites conductors of American orchestras—like Szell and Bernstein—for their efforts in behalf of the lesser-known Haydn symphonies, while bemoaning such European ensembles as the Vienna Philharmonic for their adherence to the same handful of familiar items. "This is one of the great merits of the American musical scene," he says. "It is no accident that the idea for recording the complete Haydn symphonies should have originated here."

Maerzendorfer feels these performances have captured the Viennese ambience sought by Dr. Naida. He also points out that the performances incorporate the latest musicological findings, particularly those by H. C. Robbins Landon.

"They are so important—and they affect all the symphonies," he asserts. "Even in the case of the late London symphonies we have had to incorporate all sorts of changes. The editions published by Breitkopf and Härtel are a product of the last century. The publishers hired violin teachers as editors, men who knew about fingering and bowing. Unfortunately, the kind of bowing they applied to these scores was more in keeping with the elegant salon style of their own time. And so they changed staccatos into legatos, and legatos into staccatos—whatever they felt made it more 'violinistic'. But if you go back to Haydn's original phrasings, what you find is something with far more character and style. This is what we have done. It was sheer torture having all those parts re-edited, but we did it."

So much for the later symphonies. Landon's findings vis-à-vis the earlier pieces are equally startling. These bear especially upon the parts previously assumed to be written for solo cello. Until Landon came along, there seemed ample evidence for this assumption. For in Haydn's handwriting is the indication "violonc;", which everyone took to be an abbreviation for "violincello". Also, the parts are—for a cello—tremendously high and difficult to play. So much so, Maerzendorfer indicates, that "nobody would have dreamed that Haydn actually had in mind a lower instrument!"

Yet this is the case. The part, according to Landon's evidence, was intended for the double bass. The final letter at the end of "violonc;", it turns out, is not a c but an e, thus completing the word "violone", which means double bass. The fact that Haydn had written a concerto for the double bass (a lost work, but mentioned in Haydn's catalogue) indicates the presence of an outstanding double-bass player in the Esterházy orchestra, someone capable of negotiating Haydn's demands for stratospheric tessitura.

Equally extreme tessituras, both high and low, are to be found in the horn parts. "They were our main problem," Maerzendorfer admits. "Because they are so high, any error is instantly noticeable. For this reason we had to redo entire movements. It was very taxing for the players. Sometimes we overdid it; then their lips began bleeding!"

It might have gone more easily had...
Copland’s music challenges Altec’s finest.

Aaron Copland’s music: western prairies, big cities, Billy the Kid, Appalachian Spring, ballets, symphonies, chamber music, film scores. It’s great American music. The kind that challenges a stereo.

Right now, we invite you to hear a particular piece at your Altec dealer—Aaron Copland’s Fanfare for the Common Man.

Listen to it on Altec’s finest stereo system and you hear every high and every low strong and clear. Because the big Altec Barcelona bi-amp speakers have an electronic crossover and two separate built-in power amplifiers. One to separately handle the highs. Another to separately handle the lows.

Altec’s finest system also includes the new Altec 724A tuner pre-amp with an exclusive 4 FET Varitronik tuner. So you hear better stereo separation. And finally, there’s the Altec Acousta-Voicette stereo equalizer. It lets you hear, for the first time, the original acoustic environment of the recording hall rather than the acoustics of your room.

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CIRCLE 44 ON READER-SERVICE CARD

they not been adhering to another of Landon’s discoveries. All the C major symphonies—and there are lots of them—were scored for high C horns. These symphonies are generally performed with their horn parts transposed an octave down.

A lot of work, then. Was it worth doing? "There’s not one weak piece," Maerzendorfer declares. "Certainly they don’t all have the grandeur of the later works. But this is no reason for denigrating the so-called minor pieces. They are not weak—only different.

"So much of Haydn is terra incognita," he continues. "Of Mozart, of Beethoven, most of us have pretty complete pictures. But not of Haydn. His output was so big. All those symphonies—and the divertimentos and the sonatas! We become discouraged. So it becomes very easy to say, 'Well, a lot of it is second-rate.' But we are only fooling ourselves!

He lambastes all the conventional "lazy" notions about the Haydn symphonies—that they are all alike; that if you’ve heard one minuetto, you’ve heard them all; that it all sounds like Mozart.

Instead, he stresses their tremendous scope. "They are so different from each other, so full of new ideas. No. 64, for instance. The slow movement—its big cleft! Haydn plays a beautiful hymnlike adagio. But then he interrupts it—hic!—with one single note. He starts it over—and again hic! And again and again, throughout the movement—all these staccato points in the midst of an adagio! It’s not merely an isolated effect, either. It’s a basic structural element, this atomization of sound."

I ask him how he feels about the use of the harpsichord in the symphonies. Some conductors use it extensively in their recorded performances. But Maerzendorfer has chosen not to, except where Haydn has written a specific line for it. "These symphonies have outgrown the baroque generalbass style," he says in defense of his decision. "Haydn has developed the four-bar phrase, which comes from the folk tune, and which doesn’t exist in Bach except in his dance movements."

Another decision has been to employ modern-day instruments entirely. Using old instruments, he feels, would have "made it sound too remote and strange, like Peruvian music. This was not the effect we wanted. Our purpose was to present, in the kind of orchestral sound to which people are accustomed, this enormous treasure which has been buried so long!"

CIRCLE 46 ON READER-SERVICE CARD

HIGH FIDELITY MAGAZINE
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CIRCLE 31 ON READER-SERVICE CARD

15
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IC 150

Your first preamplifier was probably a kit or prebuilt economy model with minimum quality and just the basic features. Since then you no doubt have become more discerning and can hear more music than your old preamp "lets through". Perhaps it is hindering the development of your music appreciation? We suggest that you consider the new Crown IC150 control center for significantly increased enjoyment. For example, does the loudness control on your present unit really do much? The IC150 provides beautifully natural compensation whatever the volume. Similarly, your tone controls may give inaccurate effects, while the IC150 has new "natural contour" exponential equalizers for correct compensation at low settings. Is your preamp plagued with turn-on thump and switching pops? Crown's IC150 has new "natural contour" exponential equalizers for correct compensation whatever the volume.

Most dramatic of all is the IC150 phono preamp. No other preamplifier, regardless its price, can give you disc-to-tape recordings so free of distortion, hum or noise, and so perfect in transient response. It also has adjustable gain controls to match the exact output of your cartridge. These are some of the refinements which make the IC150 competitive with $400 units, although you can own it for just $269. Only a live demonstration can tell you are ready to graduate to the IC150 and explore new horizons in music appreciation. May we send you detailed product literature today?

D 150

Ask your dealer also about Crown's new companion D150 power amplifier, which delivers 150 watts RMS output at 8 ohms (150 watts per channel at 4 ohms). No amp in this power range - the famous DC300, for example - can premiere of Arnold Schoenberg's Gurrelieder at the Metropolitan Opera House, conducting the Philadelphia Orchestra and assisted by Paul Althouse. Rose Bampton, and other soloists. "The performance was of superb quality. Mr. Stokowski had his numerous forces impressively in hand and response to his baton was instant and true." The evening was a triumph, with the work itself evoking enormous enthusiasm. "In externals this is a gigantesque work, recalling the dimensions of the many-voiced Bruckner and approaching the titanism of Mahler's Symphony of a Thousand."

On April 6 the New Metropolitan Opera Association met to discuss a solution to the economic crisis facing the company that threatens to make this past season New York's last operatic one. Many ideas have been put forth, including a suggestion of merging with the Philadelphia and Chicago companies. It is doubtful that this will be adopted, but the season is understood to hinge upon drastic economies that in turn depend upon negotiations with the personnel and the unions, now in progress. The Board of Directors announced that "the capital of the producing company and most of its $200,000 reserve fund have been depleted to such an extent that there are insufficient funds to assure another season."

In view of the reduced box office receipts of this past season, the newly elected president of the association, Paul D. Cravath, has announced that subscription and regular ticket prices will be greatly reduced, and that the 1933-34 season will be cut drastically to a minimum of fourteen, but not more than eighteen, weeks. Mr. Cravath made no mention of whether or not the expensive star roster of the Metropolitan would be depleted; and, indeed, in view of the prevailing financial depression, most of the performing artists—many of them foreigners—have voluntarily contributed up to 10% of their salaries, and Mr. Gatti-Casazza has offered to work entirely without salary.

Jacques Rouché has resigned as director of the Paris Opéra and thrown the capital into a state of operatic crisis. The Association of Theater Directors has decided to close all theaters as a protest against what is considered an unjust burden of taxation. The burden of administration has rested heavily on M. Rouché. He paid the deficit of 18,000,000 francs incurred since 1916—out of his own pocket!

20 Years Ago

RCA Victor has finally obtained the approval of Arturo Toscanini to release his 1946 broadcast of Puccini's La Bohème. Mr. Toscanini gave this performance in celebration of the fiftieth anniversary of the premiere of the opera in Turin, in 1896, which he also conducted. "The propriateness of the tempo to both musical and theatrical needs is so complete as to be staggering," ran the HF review. Judging by this recording, "improved in sound by modern engineering methods, the performance is nothing short of miraculous", and it can honestly be asserted that one has not actually heard La Bohème unless he has heard Mr. Toscanini conduct it.

those were the days

A nostalgic romp through the pages of High Fidelity and Musical America

60 Years Ago

Arthur Nikisch, en route to the United States for a nationwide tour with the London Symphony Orchestra, told reporters before he left Liverpool that "Every man once in his lifetime makes a great mistake: my mistake was in ever leaving America at all." The great conductor stated also that he keenly remembers the appreciation of American audiences even in the smallest cities.

Marie Ottnan, one of Germany's most popular opera stars and one of the most beautiful women on the stage (she was the original German Merry Widow) has forfeited her contract with the Theater des Westens because she has refused to wear a scanty negligee in the famous boudoir scene of Offenbach's La belle Hélène in a revival of the work by Max Reinhardt. When her replacement in the part became ill at the last moment, Frau Ottnan was implored to reconsider, and was told she could wear whatever she liked in "the distasteful scene." The soprano, however, stood on her artistic dignity and declared that she would not be "second choice."

40 Years Ago

Leopold Stokowski has given the American premiere of Arnold Schoenberg's Gurrelieder at the Metropolitan Opera House, conducting the Philadelphia Orchestra and assisted by Paul Althouse, Rose Bampton, and other soloists. "The performance was of superb quality. Mr. Stokowski had his numerous forces impressively in hand and response to his baton was instant and true." The evening was a triumph, with the work itself evoking enormous enthusiasm. "In externals this is a gigantesque work, recalling the dimensions of the many-voiced Bruckner and approaching the titanism of Mahler's Symphony of a Thousand."

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CIRCLE 5 ON READER-SERVICE CARD

behind the scenes

Ives from England

BERNARD HERRMANN—proprietary Ives.

LONDON

"Too much Camptown Races, too little Turkey in the Straw," objected the conductor with a wag of his finger toward the left-hand speaker in the control room. What else was being recorded but a work of Charles Ives—his Second Symphony, with Bernard Herrmann, one of the work's early champions, conducting the London Symphony Orchestra. The sessions were being sponsored by Tony D'Amato for Decca/London's Phase 4 label: After all, the stereo potentials of multichannel technique might have been invented with Ives' improbable superimpositions in mind.

With so many channels to play with, it took only a flick of a switch or two to get Turkey in the Straw up to its proper volume in competition with Camptown Races, Bringing in the Sheaves, and all the odd tunes that skip in and out of this delightful score. Despite textual problems the orchestra was enjoying itself in this finale with its clear overtones and imitations of Brahms's First Symphony, of Bruckner, and of Dvořák's New World (particularly with Turkey in the Straw). "The usual Ives mess," commented one brass player, but he was referring only to the text and not to the quality of the music. It is hardly surprising that Herrmann, who was a lifelong friend of Ives from his own student days, made his own edition of the published version for this recording: He opened the cuts made on the Bernstein record for Columbia, and in addition made a careful collation with the original manuscript, now in Yale University Library and part of the Ives collection he donated himself.

It was some forty years ago that Herrmann asked Ives about the Second Symphony and was told by the composer that he had sent it in the early 1900s to Walter Damrosch. Herrmann related how he went to see Damrosch himself, and helped him ferret through a cupboard full of brown-paper parcels—all of them scores sent to him over the years. At last they found what they wanted. Among the problems created for the London Symphony Orchestra by Herrmann's somewhat proprietary approach to the score was that the insertions brought miscollations in other parts. But everything was sorted out and the forty-minute work safely and speedily completed in the two three-hour sessions with Raymond Few as recording manager. Herrmann has already completed another twentieth-century disc for Phase 4, which is due to be issued soon: the "Four Faces of Jazz" with works by Kurt Weill, Stravinsky, Milhaud, and Gershwin. Ives will also be represented on Phase 4 by Stokowski's London-made record of the Second Orchestral Set. Herrmann's one regret is that he failed to get Stokowski interested in Ives many years earlier.

PREVIN WINDS UP V.W. Much as the LSO enjoyed its Ives sessions, the focus of its recording week in Kingsway Hall came two days later, when their principal conductor André Previn led them in four RCA sessions devoted to Vaughan Williams' London Symphony. This at last completes Previn's cycle for RCA of the Vaughan Williams symphonies, a project pushed through successfully even against the formidable competition of Sir Adrian Boult's versions for EMI. Certainly the orchestra reveled in this clearest-cut of the symphonies, and Previn in consultation with the engineers ensured that the orchestral texture should be opulent but also more transparent than is usual in Vaughan Williams. The composer had, after all, taken lessons from Ravel when he wrote the London.

"At double K I want it really mysterious," Previn said after the first full
to say of a take, and plainly his mode of matters. "I'm not crazy about that," he ways accepting guidance on technical particular takes to be included but al-
tors, knowing exactly where he wants 
room he naturally helps the recording 
exact order of movements. In the control 
offending passage.
music requires a differently concen-
ted, said Previn, when the hushed at-
for starting the slow movement (diffi-
maintaining fifteen minutes of the session 
bother me." So instead of using the re-
demand of the first movement he complained: 
"This one gets too French—all those F -
minor sevenths." Passing the time be-
tween playbacks is also more diverting 
than usual with Previn. The tape engi-
ner spoons on an unwanted passage, and 
for twenty seconds or so we have elec-
tronic bleeps and crackles. Referring to 
an avant-garde composer who had better 
remain nameless, he said, "A whole 
piece of X went by there, his Op. 1000."

Countertenor's Top 10. One of the most 
usual sessions I have attended in 
months was at the large EMI No. 1 stu-
dio, where the only instruments were the 
quiet-toned lute and chitarrone (both 
played by Robert Spencer) and the prin-
cipal performer was Britain's currently 
most successful countertenor, James 
Bowman. It was Bowman who, with Pe-
ter Pears and John Shirley-Quirk, last 
year gave the first performance of Benja-
mim Britten's new canticle to words by 
Eliot, The Journey of the Magi. He has 
also appeared many times as Oberon in 
Britten's A Midsummer Night's Dream 
and last summer had great success in 
Glyndbourne's Cavalli opera La Calisto 
(also now recorded). EMI felt it was time 
to present Bowman in a solo recording 
which would include a number of items 
from the "top of the countertenor 
pops"—Morley's Shakespeare settings 
for example—and also range through 
rarer songs Bowman and Spencer have 
found successful in recitals.

So rare were some of the Italian songs 
that there was only one copy available, 
and the recording manager, Christopher 
Bishop, had to content himself with 
looking heady-eyed at the performers 
rather than checking their notes exactly 
from a score. Occasionally he did have 
the accompaniment in indecipherable 
ute tablature, which was almost as bad. 
Bishop has known Spencer since school 
days, and he remembers a small boy 
starting to learn the guitar accom-
pnying himself in A frog he would a-
woosing go. "That boy will never become 
a musician," he had said to himself.

Bishop has different ideas now. Here 
in music of a period in which he is a spe-
cialist, he took a very positive role to 
help shape the interpretations for disc. 
How much time, for example, to leave 
between stanzas of a quick verse song, 
and should there be a hint of rallentando 
at all? The main technical problem came 
over recording the long-necked chitar-
rone. "Was there too much buzz?" asked 
Spencer at one point. "Sounded like tak-
in before easy ones, be-
believes in recording a symphony in the 
exact order of movements. In the control 
room he naturally helps the recording 
manager to a degree rare among conduc-
tors, knowing exactly where he wants 
particular takes to be included but al-
ways accepting guidance on technical 
matters. "I'm not crazy about that," he 
will say of a take, and plainly his mode of 
assessment is not just the usual musi-
cian's one of precision but of emotional 
communication too, a valuable point of 
perception. Of one take toward the end 
of the first movement he complained: 
"This one gets too French—all those F -
minor sevenths." Passing the time be-
tween playbacks is also more diverting 
than usual with Previn. The tape engi-
ner spoons on an unwanted passage, and 
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It's a first-class compact.

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Total IHF music power: 74 watts. FM sensitivity: 5 microvolts IHF. Normal-level response: 30 to 30,000 Hz ±2 db, with harmonic or IM distortion below 1% at rated output.

The automatic turntable is Perpetuum Ebner's Model 2032 with calibrated stylus-force adjustment, variable-speed control, damped cuing, anti-skating and a host of other features. The cartridge is Shure's M75-6, specially recommended for four-channel discs.

The speakers are Sansui's exciting new AS100 two-way acoustic-suspension designs. Not scaled-down performers made just to go along with a package, but full-fledged performers in their own right—regular members of Sansui's new AS speaker line. Two of them come as part of the package, because most people already have a stereo pair, but you can match up another pair of Sansui's regular line, if you wish, for a perfectly balanced system. Wait till you hear this at your franchised Sansui dealer!
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Close your eyes and your ears tell you you're listening to a reel-to-reel deck of the highest caliber. Open your eyes and you know that cassette recording has finally made the grade.

The performance-packed, feature-packed SC700 Stereo Cassette Deck incorporates Dolby noise reduction, adjustable bias for either chromium dioxide or ferric oxide tapes, three-microphone mixing and specs that will make your eyes—as long as they're open—pop even wider.

Undistorted response is 40 to 16,000 Hz with chromium dioxide tape and close to that with standard ferric oxide tape. Record/playback signal-to-noise ratio is better than 56 to 58 db with Dolby in—and commendably better than 50 db even with Dolby out! Wow and flutter are below 0.12% weighted RMS.

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With so much in its favor, Sansui engineers decided it deserved all the features of a first-rank open-reel deck, and more: Pause/edit control. 3-digit tape counter. Separate record/playback level controls (independent but friction-coupled). Automatic end-of-tape shut-off with full disengagement and capstan retraction... and much, much more.

The SC700 is practically a self-contained recording studio. Which makes it quite a bargain at $299.95.
I have two phono pickups: an ADC 10E Mk IV and a B&O SP-12, with separate tone-arm shells for each. When I play records with the B&O I have no problem. When I use the ADC I sometimes find that the output level is way down. I’ve tried switching shells, so I know that the problem is not in the contacts between the shell and the arm. The clips seem properly seated on the ADC’s contact pins, and anyway if the problem were there or a fault within the cartridge itself I’d expect it to affect one channel only—or at least one channel more than the other. Where do I go from here?—A.D. Morton, Wilton, Conn.

Sounds to us as though your problem is simpler than you think. The B&O has a fixed stylus assembly, while that on the ADC slips out for user replacement. If the assembly is improperly seated, output levels will be reduced in both channels. Try double-checking it each time you fit the ADC on the tone arm.

I want to buy a microphone for taping speech. I’ve tried models by Electro-Voice, Sony, Sennheiser, Ampex, and what have you; but while all of them produce record-ings that are entirely intelligible and will record music well, none comes close to high voice fidelity. The Ampex seems to give me the crispest sound, but it is far from perfect. What would you recommend?—Jules H. Delcay, Freehold, N.J.

Forgive us if we approach this one a bit hesitantly. When you say that a mike “will record music well” but doesn’t come “close to high voice fidelity” it suggests that you have very strong and specialized ideas about the nature of voice fidelity. Perhaps the word “crispness” is the key to what you’re looking for. Assuming that clear, strong sibilants are of particular importance, a condenser mike probably would be your best bet; and some are available in the under-$50 range today. The Sony/Superscope ECM-16 for example, can be used on a tie clip and is specifically designed for speech. You also may be running afoul of what’s known as the “proximity effect.” Bass frequencies tend to dissipate somewhat in traveling from source to ear in ordinary listening situations. So when a mike intended for music pickup and having a fairly flat bass response is used very close to the sound source, as it usually is in voice recordings, it tends to pick up extra bass. The result is an unnatural “booming,” which might be described as a lack of crispness. Some dynamic microphones like those in the Electro-Voice Variable-D series are specifically designed to control this effect; others have a fixed or switchable low-frequency filter built in to: the purpose.

In your reply to Mr. Kalus of Cleveland in the January THTH, you mention “your quotations of 30-Hz power output figures from another magazine, omitted here.” You must be referring to the Hi-Fi Buyers’ Guide, which has used this sort of rating to solve the very problem you discuss in your answer—the way a product can look good in the usual 1-kHz measurement but be poor over-all. This 30-Hz measurement seems like a good way of getting behind the advertising façade. Why don’t you use it yourself instead of just omitting mention of it from your magazine? Sour grapes that somebody else thought of it first?—Arnold Bunzty, Milwaukee, Wisc.

Not at all. We agree that this is an interesting way of trying to pierce present façades—or at least one aspect of those façades. But a single measurement, however clever in itself, won’t do the whole job. Once a manufacturer gets wind of the technique, he can simply design for it and allow performance to degrade somewhere else if he’s of a mind. Only a broad spectrum of interrelated measurements—the sort we already present on our equipment reports—can possibly tell the true story about a given piece of equipment. The bandwidth curve we show in our test reports does indicate power output for rated distortion at all frequencies, incidentally.

I have just purchased a Garrard Zero 100 turntable and a Shure V-15 Type II improved cartridge. The Shure instructions say that recommended stylus force is 0.07 grams. Is the Zero 100 capable of tracking the cartridge at that force?—Bruce Donnally, Syracuse, N.Y.

Look again. Shure recommends a tracking force between 0.75 gram (0.75—not 0.07—gram) and 1.5 grams. Is the Zero 100 capable of tracking the required four phono inputs. How will you play quadrophonic discs?—Maurice M. Windhorst, APO San Francisco.

You only need two phono inputs to play the quadrophonic discs. If they are of the matrixed type, the right and left signals go through the preamp in that form and are converted to four only in the decoder that comes (either outboard or built in) between preamp and power amplifier. If you mean the JVC CD-4 discs, they require a special demodulator unit that takes the left and right signals and demodulates them at the same time that it sorts them into four channels. The output of the CD-4 demodulator is therefore at line level and requires four, aux connections (instead of phone connections) on the receiver. Some receivers have the demodulator circuitry built in; but again, the input would still be only the normal stereo phone pair.
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(MUSICAL AMERICA is available only by subscription... and only with HIGH FIDELITY. It is not sold on newsstands. Another important reason for you to use the subscription card now.)
Introducing four completely new stereo receivers with more of everything.

Sjcner or later other stereo receivers will strive for the total combination of power, performance, features, precision and versatility incorporated into Pioneer's totally new SX-823, SX-727, SX-626 and SX-525. Why wait? Pioneer has more of everything now.

Each of these exceptional receivers delivers the most watts of power for the money. You can prove it by making your own comparisons. SX-828, 270 watts IHF; SX-727, 196 watts IHF; SX-626, 130 watts IHF; SX-525, 72 watts I.F. The use of direct-coupled amplifiers and twin power supplies in the top two models further enhance performance and responses, while minimizing distortion.

The crowded FM dial and weak stations offer no challenge to this new and advanced FET and IC circuitry. Every signal sounds as though it's just around the corner. Further your sound is protected against damage and IC leakage (a cause of distortion) by the ingeniously new and exclusive Pioneer electronic trigger relay system designed for the SX-828 and SX-727.

The highest degree of versatility is achieved with a wide range of features, including: FM muting, loudness contour, mode lights, click-skip tone controls, tuning meters, ultra wide FM dial, plus full complement of connections for turntables, tape decks, headphones, microphones, speakers—and even a channel, when you're ready.

Ask your Pioneer dealer to demonstrate each of these new models. Regardless which new Pioneer receiver you finally select, you're assured it represents the finest at its price. SX-823: $425.95; SX-727: $349.95; SX-626: $275.95; SX-525: $239.95. Prices include walnut cabinets.

U.S. Pioneer Electronics Corp. 178 Commerce Road Carlsbad, New Jersey 07072
The game of quadraphonics—watching—and it's undoubtedly the major parlor preoccupation of dyed-in-the-wool high fidelity enthusiasts at the moment—took on a new twist early this year. For the first time there is a four-channel disc system that can with any fairness be called a front-runner. It's the CBS SQ system.

The apparent lead of the SQ system consists in the number and importance of the companies that have expressed an interest in making SQ equipment, as well as the attractiveness of the SQ release lists. (Columbia, Epic, and Ampex discs are reviewed elsewhere in this issue; Vanguard also has announced SQ discs, and EMI /Angel plans to do so.) Two giant chains—Lafayette and Radio Shack—have signed SQ licensing agreements, and Lafayette already has samples of its equipment. Sony, which is tied to the CBS system through the joint operation that distributes Columbia recordings in Japan, offers component-style SQ equipment, while Columbia's own Masterworks brand has SQ models in its mass-market line. Latest to set a foot on the SQ running board is Sherwood Electronics Labs, which has signed a licensing agreement according to trade reports. When we might expect Sherwood SQ components is another matter; a company spokesman will indicate only that Sherwood still is interested primarily in stereo equipment.

The majority of announced decoding devices fall into the non-SQ camp, however. If those that (like the Dyna Quadaptor) require only two channels of amplification are excluded, the tally is still impressive. The number that can be bought in the stores is relatively modest, however. While perhaps a score of companies have more or less proprietary decoders that are "compatible with" (that is, similar to the operating parameters of) the E-V and Sansui designs—which are similar to each other of course—there is little evidence of large-scale production or stocking by dealers. For the moment, then, many of the non-SQ decoding components must be counted as gestures in the direction of—rather than evidence of true commitment to—matrixing.

Back to the City?

Last month in this column we wrote of the disappearance of center-city high fidelity shows—particularly that in New York, once the Spring Prom (or rather the Fall Prom) of the high fidelity season. It is a bit of a shock to find that come this fall it will have been four years since the Institute of High Fidelity sponsored its last Manhattan show. How time flies when you're having a recession!

Well the economy appears to be improving, and so is the prognosis for a 1972 IHF show in midtown Manhattan. The connection between economy and show scheduling may be more than coincidence. Complaints about midtown events have centered around falling attendance, and the assumption has been that as more and more of the population moves to the suburbs a dwindling supply of city dwellers remains to attend the shows. There's probably a good deal of truth in that concept. But most of the people who live in suburbia work in the city; they need only extend the diurnal visit if they want to attend the show.

Then how about the threat of crime in the streets, the high cost of babysitters, and similar malignancies? If the New York show takes place this year, it may help to determine which are the overriding factors. Present plans would place it in the Statler Hilton near Madison Square Garden from October 17 through 24. If it takes place as scheduled, and if it wins back the crowd it once had, it may convince the IHF that the inner city is not the wasteland it appeared during the leaner years.

Don't expect a wholesale reversion to the "good old
THE COBALT CASSETTE EXPLOSION, EXPLAINED.

This is the year cassettes made it big. The year they changed from teenybopper tape to a full-fledged recording/playback medium.

And the latest step in this revolution is something called cobalt energizing, or cobalt doping.

It creates, in one stroke, the cassette of the future.

Mallory’s Professional Duratape*, the newest development in cobalt energizing, gives you a 1980-type cassette right now.

In 1972.

Professional Duratape’s cobalt energizing concentrates magnetic particles in the tape to an almost incredible density, allowing a greater signal-to-noise ratio, and producing a fully-extended frequency range: 35 to 18,000 Hertz, plus or minus 2.5 decibels.

Different tape decks give different response curves. But our cobalt-energized cassette, played on optimum equipment, would give you one that looks like this:

![Frequency Response Graph](image)

Before, you had to use chromium dioxide tape and a deck with a special chromium dioxide switch to get maximum frequency range. Now cobalt energizing does it without any special switching or circuitry.

Professional Duratape is a cassette so advanced, it’s capable of future recording and playback in discrete 4-channel stereo—two front speaker channels and two rear speaker channels.

It’s a cassette so complete in its capabilities, it can replace your other playback media: reel-to-reel tape, cartridges, records, the works.

It even permits editing, a great advantage to professional audio people as well as advanced amateur enthusiasts.

All of which is why we named it Professional Duratape.

If you’ve ever spent any amount on cassettes or cassette equipment, you owe it to yourself to experience Professional Duratape.

Just once.

And that, we believe, is all you’ll need.

THE NEW COBALT-ENERGIZED PROFESSIONAL DURATAPE.

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CIRCLE 47 ON READER-SERVICE CARD
days, however. The popularity of suburban shows in the recent past has made it unlikely that downtown events will become the mandatory annual affairs they once were.

Another Round for Dolby

In recent weeks the list of Dolby licensees has been expanded to include a number of companies—particularly those based in Japan—in the component high fidelity field, including Sony, Pioneer, Toshiba, Panasonic, JVC, and Kenwood. Presumably the interest of these companies centers around the Dolby “B” noise-reduction circuit—since that is the only version of the Dolby technique that is adapted to consumer purposes—for use in, or with, cassette equipment.

What makes these announcements particularly interesting is that Panasonic, JVC, Sony, and Kenwood all have produced noise-reduction systems of their own. Kenwood’s KF-8011 denoiser is particularly elaborate, acting in four frequency bands, each of which can be denoised (or left unaltered) independently of the others. Like the Sony, Panasonic, and JVC noise-reduction circuits, the KF-8011 acts in playback only—as opposed to the Dolby action which involves processing during both recording and playback. For this reason the KF-8011 can be used to reduce noise factors in any program source—discs, FM, or tape recordings that have not been Dolby processed. And the KF-8011 is expected to co-exist with any Dolby designs the company may offer.

There is no firm indication when we might expect Dolby equipment from the new licensees. (And of course the signing of a license does not necessarily guarantee that the equipment will be offered.) At best it may take several months before product engineering can be completed and first samples made public.

equipment in the news

Heath adds acoustic suspension speaker kits

Four models have been added to Heath’s line of speaker-system kits. The AS-104, shown here, is a three-way system with a 10-inch woofer and sells for $89.95 with a walnut-veneer cabinet. Two versions of the AS-105, a two-way system that also uses a 10-inch woofer, are available: the AS-105W ($69.95) with a walnut-veneer cabinet and the AS-105U ($64.95), which is unfinished. The least expensive model in the group is the AS-106, with a single driver and walnut-veneer finish, at $19.95.

Display/Analyzer unit from Pioneer

As part of its new 1000 series of separate components, Pioneer has introduced the SD-1000, a multipurpose display/evaluation unit. It includes a built-in audio oscillator equipped for manual or automatic frequency sweeps, a three-inch oscilloscope, and dual level meters. The oscilloscope can be used in checking FM multipath, as a stereo or quadraphonic display, or as a waveform display. Four back-panel input channels can be selected individually for either vertical or horizontal display. Front-panel inputs are provided as well, and the unit can be used (with microphones) to check speaker-performance and room-acoustic characteristics. The SD-1000 costs $549.95.
Ecstasy. At a price that won't cause too much agony.

Before the ecstasy of listening to your new stereo equipment comes, alas, the agony of shopping for it—the frustration of wanting this feature, and that spec, and finding that your budget won't quite cover it.

Sony has something to ease the pain. The STR-6036. An FM Stereo/AM-FM receiver for the man with a small room, a small budget, but big ears nonetheless.

It's an inexpensive receiver that doesn't sacrifice performance, specifications, control flexibility, sound quality, or even looks.

What it does sacrifice, of course, is just a bit of power. The STR-6036 delivers 50 clean watts of IHF dynamic power at 4 ohms*. That's quite enough to drive even most low-efficiency "bookshelf" speakers, even if it's not enough to rival the power company, or to let you bust your buttons bragging about it.

The tuner, though, makes no concessions: It has a sensitive, overload-proof FET front end. And ceramic i.f. filters that increase selectivity and never need realignment. Plus a tuning meter for both AM and FM.

The controls have all the flexibility you'd expect from Sony: tape monitor, main/remote speaker selector, switchable loudness, even front-panel microphone input jacks.

And the control feel is typical Sony, too—firm, silky-smooth and positive. So the pleasure begins at your fingertips, even before your ears can start enjoying. Your pleasure will deepen to ecstasy when you hear the low price. As will your dealer's when you buy one. Sony Corporation of America, 47-47 Van Dam Street, Long Island City, N.Y. 11101.

*IHF standard constant supply method.
New version of Advent Dolby unit

The Advent Model 100A has somewhat more flexibility of switching and application than the Model 100 that preceded it. The Dolby switching specifically allows use with signals (from tape or FM) that already have been Dolby processed. For example, you can make an identical, Dolbyed copy of a Dolbyed tape using the 100A's Dolby circuitry only for the signal to be monitored—which may derive from either the original or the copy. There are two, mixable stereo pairs of inputs, either of which can be used as a standard line input or, by adding Advent's MPR-1 two-channel mike preamp unit, for a stereo pair of microphones. The MPR-1, which works off the Model 100A's power supply, costs $25; the Model 100A costs $260.

Sansui's "universal" quadrephonic receiver

Sansui calls its QR-6500 a universal receiver because the unit will handle mono and stereo signals as well as derived, matrixed, or discrete quadrephonic programs. It consists of a stereo FM/AM tuner section, a switching section with provision for deriving quadrephonics from stereo sources, and four power-amp channels with switching for driving up to two speakers at a time in each channel. Monitoring switches are provided for a four-channel recorder and two stereo recorders—one of which can be connected via front-panel jacks. The deluxe unit is rated at 37 watts continuous power per channel into 8-ohm loads and sells for $699.95.

Low-cost monitor-head recorder from Sony

The Sony/Superscope TC-353 is a self-contained music system built around a three-head open-reel recorder. It has inputs for microphones, line (a receiver or second tape unit, for example), tuner, and magnetic phono. A pair of removable speakers are built into the TC-353's lid. They are driven by a built-in amplifier with separate bass and treble controls and rated at 7 watts per channel continuous power. The recorder itself operates at 7½, 3¾, and 1⅝ ips and includes Sony's "retractomatic" pinch roller to simplify threading. Monitoring switch, public-address switching, pause control, and captive reel locks are included. The TC-353 costs $329.95.

Weltron offers DIN-style adapter cables

A series of cables with DIN-to-DIN or DIN-to-phono terminations have been made available by Weltron for owners of imported equipment fitted with 3-pin or 5-pin DIN jacks. Model W-HOS-1 has a 5-pin DIN plug on one end, four phono plugs on the other. W-HOS-2 has a 3-pin DIN plug, connected to two phono plugs. W-HOS-4 is 6 ft. long and mates a 5-pin DIN connector at one end with a 3-pin DIN connector at the other. The cables sell for about $4.50 each.

Onkyo announces Linear Suspension speakers

The Onkyo Model 25, one of three speaker systems in the Scepter Series, has a 14-inch cone woofer, a 2-inch domed midrange driver, a 1-inch domed tweeter, and crossover assembly mounted in the company's Linear Suspension enclosure. The woofer has a ported cone cap, credited by Onkyo with reducing nonlinearity in bass response. The crossover panel on the back of the enclosure includes separate five-position controls for midrange and high frequencies. The system is rated for a frequency response of 30 Hz to 20 kHz and an impedance of 8 ohms, with a maximum-power rating of 60 watts and minimum recommended input of 10 watts continuous. It costs $249.95.
A report in the 4-channel war of the matrixes:

The war is over!

And (unlike real wars) everybody has won. Columbia Records has announced release of encoded 4-channel records. And because support from major record companies is essential to 4-channel, we welcome them. Columbia now joins the many pioneering record manufacturers who've already produced thousands of 4-channel discs.

We must admit that at first we were concerned. Because while most of the original matrixes were basically compatible, these new SQ discs were different. Which could have led to a battle of the matrixes and even more confusion in the marketplace.

But we knew our matrixing system was best, so what to do about this promised flood of seemingly incompatible discs? The answer: a new "universal" E-V decoder now in production. Not only does this improved decoder handle our STEREO-4™ (and all similarly-encoded material) but we've added sophisticated circuitry to decode SQ records accurately. It even does some things decoders built solely for the SQ format don't, like more correctly controlling the position of a front-center soloist.

So, now the E-V Decoder is the only one for all matrix 4-channel programs. And now — more than ever — matrixing (encoding four channels of sound into two) continues to grow as the method to get 4-channel sound on records, FM, and tape to the listener... now and in the foreseeable future.

What about our "old" EVX-4 Decoder? Well, despite the algebra, it actually decodes SQ records remarkably well. It just doesn't offer complete rear directionality from these different discs. But unless it is directly compared with our improved decoding this has proved a minor issue for many listeners.

In addition we doubt that independent record companies will give up the advantages of STEREO-4 encoding in favor of the SQ system. Because the "new" decoder is more complex — hence more expensive — we'll continue to sell both models. One of them is for you!

But having now created the "universal" decoder we're not resting on our laurels. We're going on to refine it in future models with such features as gain riding to make it by far the best circuit in the industry.

So, hopefully, order is restored. Record companies can get on with software in increasing numbers using any matrixing system they prefer... while you begin to really enjoy the fruits of all our labors.

Peace.

THE [EV] STEREO-4® FOUR-CHANNEL FAMILY OF PRODUCTS

E V X 4 Stereo-4 Decoder
E V 1244X Combined Stereo Amplifier/Decoder
New Universal Decoder
EVR-4X4 AM/FM Stereo 4-Channel Receiver

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In Canada: EV of Canada, Ltd. 345 Herbert Street, Gannanou, Ontario
In Europe: Electro-Voice, S.A., Lyss-Strasse 55, 2500 Nidau, Switzerland

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How this Wollensak 8-track recorder takes advantage of your stereo system

The Wollensak 8050 8-track pre-amp deck is built to make the most from the output of your stereo system.

It records your kind of music onto 8-track cartridges from records, radio, tape or your own sound source. Then plays it back through your system. Making these cartridges on the 8050 saves you a bundle. And if you have 8-track in your car, they can do double duty.

When you're ready to record, you always know the tape is at the beginning with the 8050's exclusive "cuing" feature. Dual illuminated VU meters with a switchable automatic record level help make professional recording a breeze. There's no chance of accidentally erasing previously recorded tracks with its automatic eject system.

When you're ready to listen, the 8050's fast-forward control lets you move right along to the selection you want to hear. A truly outstanding signal-to-noise ratio that's better than 50 db, a full frequency response of 30-15,000 Hz and a special long life high torque AC motor add to its performance.

Nobody knows more about sound-on-tape or has more experience in tape recording than 3M Company.

So, move on out to your nearby dealer and learn more about how the Wollensak 8050 8-track deck takes advantage of your stereo system.
A Luxurious Receiver from Marantz

The Equipment: Marantz 2270, a stereo FM/AM receiver. Dimensions: 17% by 5% by 14 inches. Price: $549.95. Manufacturer: Marantz Co., Inc. (a subsidiary of Superscope, Inc.), P.O. Box 99, Sun Valley, Calif. 91352.

Comment: Performance aside (for the moment), little design quirks mean a lot in terms of the "feel" of a given piece of stereo equipment; and the 2270 is one of those units that, with a little use, takes on its own personality. The silky and noise-free action of its pushbuttons, the horizontal tuning wheel, and the clutched triple tone controls (bass, midrange, and treble) with detents for repeatable settings all contribute to this feeling of individuality.

Below the tuning meters, dial, and tuning wheel are three groups of switch buttons with four buttons in each group. The first has one button to convert the signal-strength meter to read multipath, a high-blend switch, and two buttons for tape-monitor switching. The second has two for mono-mode switching (permitting selection of left, right, or both signals) and two for filtering—high and low. At the right are buttons for loudness compensation, FM muting, main speakers (on/off), and remote speakers (on/off). Across the bottom are six knobs: selector, the three tone controls, balance, and volume. At the extreme left are input and output jacks for an added tape recorder. The output is in parallel with the two tape outputs on the back panel; the input overrides those from the back panel. At the extreme right are the power on/off switch and headphone jack, which is live at all times.

On the back panel are the main and remote speaker connections, switched and unswitched AC convenience outlets (one each), a Quadradial output (for use with an adapter should a quadraphonic broadcast method be approved), connections for AM antenna and 75-ohm or 300-ohm FM lead-in, a local/distant FM switch, a screwdriver adjustment for FM-muting level, a chassis ground connection, and the pairs of phono-jack inputs and outputs. These include preamp-out and main-in connections—for use with room equalizers for example—that are delivered fitted with jumpers for nor-

REPORT POLICY

Equipment reports are based on laboratory measurements and controlled listening tests. Unless otherwise noted, test data and measurements are obtained by CBS Laboratories, Stamford, Connecticut, a division of Columbia Broadcasting System, Inc., one of the nation's leading research organizations. The choice of equipment to be tested rests with the editors of HIGH FIDELITY. Manufacturers are not permitted to read reports in advance of publication, and no report, or portion thereof, may be reproduced for any purpose or in any form without written permission of the publisher. All reports should be construed as applying to the specific samples tested; neither HIGH FIDELITY nor CBS Laboratories assumes responsibility for product performance or quality.

APRIL 1972
### Power Output Data

**Channels Individually**
- Left at clipping: 94.5 watts for 0.03% THD
- Left at 0.3% THD: 95.0 watts
- Right at clipping: 91.1 watts for 0.04% THD
- Right at 0.3% THD: 96.6 watts

**Channels Simultaneously**
- Left at clipping: 94.5 watts for 0.03% THD
- Left at 0.3% THD: 98.0 watts
- Right at clipping: 91.1 watts for 0.04% THD
- Right at 0.3% THD: 96.6 watts

**Power Bandwidth**
(for 0.3% THD: 0 dB=70 watts)

### Frequency Response

**Power Output Data**
- Channels Individually
- Channels Simultaneously

**Power Bandwidth**
(for 0.3% THD: 0 dB=70 watts)

**Frequency Response**
- Channels Individually
- Channels Simultaneously

### Harmonic Distortion Curves

**35 Watts Output**
- Left channel: <0.96%, 20 Hz to 20 kHz
- Right channel: <0.89%, 20 Hz to 20 kHz

**70 Watts Output**
- Left channel: <0.09%, 20 Hz to 20 kHz
- Right channel: <0.10%, 20 Hz to 20 kHz

### Intermodulation Curves

**Intermodulation Curves**
- 8 ohm load: <0.11% to 95.5 watts
- 4 ohm load: <0.37% to 47.7 watts
- 1 ohm load: <0.95% to 56.7 watts

### Preamp & Control Characteristics

**Equalization**
- +0.5, -1.75 dB, 20 Hz to 20 kHz

**Gain Stabilization**
- Bass boost: +15 dB
- Bass cut: -15 dB
- Midrange boost: +10 dB
- Midrange cut: -20 dB
- Treble boost: +5 dB
- Treble cut: -5 dB

### Tuner Section

<table>
<thead>
<tr>
<th>Measurement</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capture ratio</td>
<td>2.0 dB</td>
</tr>
<tr>
<td>Alternate-channel selectivity</td>
<td>62 dB</td>
</tr>
<tr>
<td>S/N ratio</td>
<td>more than 79 dB</td>
</tr>
<tr>
<td>IM distortion</td>
<td>0.3%</td>
</tr>
<tr>
<td>Mono 80 Hz</td>
<td>0.34%</td>
</tr>
<tr>
<td>Mono 1 kHz</td>
<td>0.30%</td>
</tr>
<tr>
<td>Mono 10 kHz</td>
<td>0.25%</td>
</tr>
<tr>
<td>19 kHz pilot suppression</td>
<td>66 dB</td>
</tr>
<tr>
<td>38 kHz subcarrier suppression</td>
<td>64 dB</td>
</tr>
</tbody>
</table>

### Amplifier Section

**Damping factor**
- 35

**Input Characteristics (for 70 watts output)**
- Phono 1 & 2: 1.9 mV, 65 dB
- Tape 1 & 2: 179 mV, 86.5 dB
- Aux: 179 mV, 86.5 dB

---

Mal use. In addition to the inputs and outputs for two tape decks, there are two input pairs for magnetic phono cartridges and one for aux. In fact, everything about this receiver (except its sometimes unclear instruction manual) is carefully planned and beautifully executed.

Tuner performance is excellent. Quieting descends steeply to -40 dB at only 2.5 microvolts and achieves full effect (-48 dB) at 50 microvolts, making it possible to receive clean sound from stations that would be borderline at best with many receivers. The S/N ratio is, at more than 79 dB, one of the best that CBS Labs has measured for us. And distortion is unusually low.

The amplifier section is a real powerhouse. Marantz’s rating of 70 watts per channel is very conservative; many companies would rate such a design at 90 watts or more per channel. To put it another way, at rated output the distortion is exceptionally low—no more than 0.1% of either THD or IM in any of the lab measurements at 8 ohms. Note, however, that power output at 4 ohms is relatively restricted if IM distortion is to be kept low. If all speaker taps are to be used, particularly if the listening rooms are large or the speakers unusually inefficient, 8-ohm speakers would appear to be in order.

The most distinctive feature of the control section is the three-knob tone-control system. The maximum effect of the midrange control is not as extreme as that of bass and treble—and indeed it need not be for most purposes. It can be used to add a bit more “presence” to a soloist, or to subdue an overly “forward” soloist—typical of some older recordings. And we found a use that may become increasingly important in the near future: to balance dissimilar loudspeakers in four-channel listening (with the addition of an extra stereo amplifier). Normal treble and bass controls had failed to match the tone color of the front pair with those used for the back channels; the three-way controls, with their added flexibility, did a much more satisfactory job when we substituted the 2270 for the receiver that we had been using.

Comment: Harman-Kardon’s Dolby cassette deck is much more compact and somewhat less feature-laden than most comparable units presently available. It combines a fairly conventional transport system with electronics highlighted by a chromium-dioxide/ferric-oxide switch and an overload light that, in conjunction with the dual metering, helps in precise setting of recording levels. According to the company, the current models embody certain internal improvements (both mechanical and electrical) over those available about a year ago from initial production runs—and at a somewhat reduced price.

On the main control panel are the usual piano-key buttons: record interlock, rewind, stop/eject, play/record, fast forward, and pause. To the left of these controls is a mono/stereo switch; below them is a row of indicator lights: recording, motor, overload, and Dolby.

In testing the CAD-5, CBS Labs used Memorex chromium-dioxide tape and ran three sets of record/playback curves: at -10 VU and at -20 VU with Dolby circuitry off and at -20 VU with the Dolby circuitry turned on.

Harman-Kardon CAD-5 Additional Data

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speed accuracy</td>
<td>1% ips</td>
</tr>
<tr>
<td></td>
<td>105 VAC: 0.33% slow</td>
</tr>
<tr>
<td></td>
<td>120 VAC: 0.17% slow</td>
</tr>
<tr>
<td></td>
<td>127 VAC: 0.16% slow</td>
</tr>
<tr>
<td>Wow and flutter</td>
<td>playback: 0.13%</td>
</tr>
<tr>
<td></td>
<td>record/playback: 0.15%</td>
</tr>
<tr>
<td>Rewind time</td>
<td>C-60 cassette: 1 min. 30 sec.</td>
</tr>
<tr>
<td>Fast-forward time</td>
<td>same cassette: 1 min. 30 sec.</td>
</tr>
<tr>
<td>S/N ratio (ref. 0 VU, Dolby off)</td>
<td>playback: 53.0 dB</td>
</tr>
<tr>
<td></td>
<td>record/playback: 50.0 dB</td>
</tr>
<tr>
<td></td>
<td>R ch: 52.5 dB</td>
</tr>
<tr>
<td></td>
<td>R ch: 49.5 dB</td>
</tr>
<tr>
<td>Erasure (400 Hz at normal level)</td>
<td>64.0 dB</td>
</tr>
<tr>
<td>Crosstalk (at 400 Hz)</td>
<td>record left, playback right: 44.0 dB</td>
</tr>
<tr>
<td></td>
<td>record right, playback left: 41.5 dB</td>
</tr>
<tr>
<td>Sensitivity (for 0-VU recording level)</td>
<td>high input: 580 mV</td>
</tr>
<tr>
<td></td>
<td>low input: 185 mV</td>
</tr>
<tr>
<td></td>
<td>mike input: 0.2 mV</td>
</tr>
<tr>
<td></td>
<td>R ch: 580 mV</td>
</tr>
<tr>
<td></td>
<td>R ch: 185 mV</td>
</tr>
<tr>
<td></td>
<td>R ch: 0.2 mV</td>
</tr>
<tr>
<td></td>
<td>L ch: exact</td>
</tr>
<tr>
<td>Accuracy, built-in meters</td>
<td>L ch: 0.5 dB high</td>
</tr>
<tr>
<td>IM distortion (record/play, -10 VU)</td>
<td>1% ips</td>
</tr>
<tr>
<td></td>
<td>L ch: 5.5%</td>
</tr>
<tr>
<td></td>
<td>R ch: 4.5%</td>
</tr>
<tr>
<td>Maximum output (preamp or line, 0-VU)</td>
<td>L ch: 1.2 V</td>
</tr>
<tr>
<td></td>
<td>R ch: 1.3 V</td>
</tr>
</tbody>
</table>
At -10 VU the curves (not reproduced here) show only minimal droop—by 1.5 dB or less—at high frequencies with respect to the curves at -20 VU, indicating unusual headroom at these frequencies. The similarity of Dolby and non-Dolby curves indicates excellent Dolby tracking. All the curves are substantially flat to 13 kHz at the high end—an excellent figure and noticeably better than one would expect with ferric-oxide tapes. Inter-

Digital FM Tuner
From Sherwood


Comment: High fidelity enthusiasts seldom acknowledge the degree to which emotional factors color their responses to specific products, yet feelings seem to run unusually high where digital tuning is concerned. It is new; it is redolent of the technological society in which we live; yet it has an exotic look and “feel.” One is tempted therefore either to dismiss digital tuning as mere technical window-dressing or to accept it uncritically as the latest advance in tuner design. Our experience with the SEL-300 confirms our impression that neither impulse is entirely justified.

In any terms the SEL-300 is an exceptional tuner. Lab readings for sensitivity, selectivity, and S/N all place it in the top class, and—perhaps the acid test—its audio output is unusually crystalline in quality. Moreover it has a number of unusual switching and interconnection features. To the right of the “dial”—the digital readout itself plus the two tuning meters and indicator lights—is the tuning knob, followed by a stepped attenuator that affects the line output only and matches those levels to the input requirements of the amplifier and to other signals handled by the stereo system. Across the bottom of the front panel are an on/off switch, a calibrated hush (interstation muting) control, a readout brightness control (three positions plus off), a calibrated headphone volume control, connections for headphones and for a tape recorder, and a series of buttons: tape monitor, hush, stereo-only, mono-only, noise filter, and interstation readout blanking (the visual equivalent of a muting control).

The front-panel tape jack is subordinate to the main tape-recorder connections on the back panel. This arrangement permits unusual flexibility of interconnection—including the dubbing of tapes from one recorder to another—while keeping leads from tuner to the main recorder as short, and the signal as hum-free, as possible. In addition to tape-in and tape-out connections, the back panel has line output jacks, “multipath” jacks (horizontal and vertical feeds for oscilloscope evaluation of incoming signals), screw terminals for 75-ohm and 300-ohm antennas, coax connector for a 75-ohm antenna, a ground terminal, an unswitched AC convenience outlet, and a “four-channel output”—a single phono jack intended for use with quadraphonic decoding equipment if and when a broadcast system is approved.

Now to that question of digital tuning. The SEL-300 is internally conventional. That is, it is not one of those designs whose internal circuitry precludes a conventional dial. But where stations crowd the dial there never is any question of the frequency to which the SEL-300 is tuned. For example you need not count fine-scale divisions to determine whether you are tuned to 98.3 or 98.5 MHz; with digital tuning it is obvious at a glance.

Over-all the SEL-300 offers the fastest and most positive modulation runs about par for the better cassette decks, while harmonic distortion—at under 1.5% across the board—is better than par.

Other measurements too are consistent with current concepts of performance levels to be expected in a good component-quality cassette deck. That’s what the CAD-5 is, and at an attractive price.

CIRCLE 142 ON READER-SERVICE CARD

Digital FM Tuner
From Sherwood
Sherwood SEL-300 Tuner Additional Data

<table>
<thead>
<tr>
<th>Feature</th>
<th>Mono</th>
<th>L ch</th>
<th>R ch</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capture ratio</td>
<td>2.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>S/N ratio</td>
<td>74</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IM distortion</td>
<td>0.22 %</td>
<td>0.56%</td>
<td>0.52%</td>
</tr>
<tr>
<td>THD</td>
<td>2.3 dB</td>
<td>74 dB</td>
<td>0.22%</td>
</tr>
<tr>
<td>80 Hz</td>
<td>0.08%</td>
<td>0.43%</td>
<td>0.52%</td>
</tr>
<tr>
<td>1 kHz</td>
<td>0.18%</td>
<td>0.72%</td>
<td>0.34%</td>
</tr>
<tr>
<td>10 kHz</td>
<td>0.56%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>19-kHz pilot suppression</td>
<td>65</td>
<td></td>
<td></td>
</tr>
<tr>
<td>38-kHz subcarrier suppression</td>
<td>64</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

CBS Labs' findings document the SEL-300 as one of the finest tuners we have ever tested. There is one point that requires special mention, however. Using standard laboratory procedures the THD for a 10-kHz stereo signal measures 24%-surprisingly high for such a unit. Analysis shows that this extraneous output is not harmonic distortion in the strict sense (usually largely second and third harmonics of the fundamental—or 20 and 30 kHz in this particular test), and lies largely at frequencies beyond audibility. Distortion in the audible range for this 10-kHz stereo input was measured at 2%.

In terms of everything except this one measurement—and even in spite of it—the SEL-300 is an exceptionally fine and versatile tuner.

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Heath’s Top Thomas Organ Kit


Comment: Truly an ambitious undertaking for the novice or seasoned kit builder, the TO-101 has such a broad range of sonic and control capabilities that it is almost impossible to imagine a user whose demands are so specialized as to be beyond the instrument’s capabilities. Yet even the inexpert organist can make the most of his resources with the aid of the Bandbox and Playmate accessories.

The Legato, like most of the comparable instruments now available, uses oscillator circuits as tone generators to produce the basic signal. There are twelve master oscillators in the Legato, one for each note of the chromatic scale, representing one keyboard octave. Pitches for the remaining octaves are derived from these by means of frequency-divider networks, which are an integral part of each tone generator. Eight of the generators have four divider networks, the other four have three. The resulting fifty-six notes are then colored, filtered, and amplified by the various voicing, synthesizing, and preamp circuits within the organ to produce the vast array of tones available to the organist.

Those tones are fed to two amplifiers rated at 200 watts peak power (i.e., 100 watts continuous) apiece—one driving an 8-inch Leslie speaker in its two-speed rotating baffle, the other driving two fixed 12-inch main speakers. There is also a provision for the use of stereo headphones, enabling the musician to turn off the organ speakers and play or practice in privacy, and a mono input/output jack intended for use in tape recording directly from the organ signal and playback through the organ’s own speakers. The two 44-manuals (keyboards) and a 25-note pedal array are controlled by a total of 19 “stops” plus a variety of special-effect switches, as detailed in the Voicing Options listings below. The Thomas Color-Glo system is incorporated to help the beginner learn easily with or without the Thomas organ course, to which it is keyed.

The TO-101 kit is accompanied by the usual instruction manuals—all seven of them; nine if you buy the Bandbox and Playmate rhythm section as well. As usual, the Heathkit manuals are clear and complete. They methodically cover each step of construction. As we review the construction process, manual by manual, you should get some idea of the complexities afforded by a large organ. Total building time ran to almost 110 hours.

Book No. 1 gives an introduction to the organ, unpacking procedures for the preassembled basic cabinet, and instructions for the assembly of the pedal board. No problems were encountered with this section.

Book No. 2 covers the construction of the main amplifier and Color-Glo power supply. One error showed up in this manual, but it was not difficult to make the required change later in construction. (Heath will be correcting this with an addition to its errata sheets.) Our test builder had no other problems in completing this section.

Book No. 3 concerns itself with the assembly of the tuning system we have yet encountered; where many stations are available it is even faster and simpler than punched-card tuning.
accompaniment (lower) manual, distribution board, pedal keyer, divider circuit boards, and the tone generators. In three cases, color coding on one circuit board did not match the coding in the written instructions, but the corresponding wiring pictorial resolved the discrepancy. Installation of capacitors in the tone generators should be done with extreme care, incidentally. An incorrect value would change the operating frequency of the generator, making it difficult or impossible to tune properly. All the capacitors look alike, and the value of each is printed in very small numbers on the side.

Book No. 4 is devoted entirely to the construction of the solo (upper) manual and its associated parts—including the chimes, part of the Color-Glo system, various on/off switches, and balance controls. A special alignment tool is supplied to adjust the height, length, and spacing between keys. There were no construction problems in this section.

Book No. 5 proved the most complex. This is the point in construction where all voicing, percussion, and accessory circuit boards are built and wired into the organ, and the Leslie speaker installed. Extreme caution is necessary in connecting the myriad parts to these circuit boards. A transistor lead misplaced, or an electrolytic capacitor inserted backward, can cause problems that take a long time to find and correct. Our builder had to add a wire to the sustain-to-solo voicing harness to extend a shield trimmed off in manufacture. All other areas of construction went smoothly.

Book No. 6 brings us to final adjustment, initial testing, tuning, and final assembly steps. Spacing of the spring contacts for the individual keys is adjusted; then the builder checks all the controls and tabs to determine whether they are working properly and producing the desired effects. This section also covers the adjustment of the percussion, manual balance, vibrato, and tremolo sections of the organ. Our kit builder found four problems: The sustain could not be turned off, the D tone generator was inoperative; the four tibia tabs produced no sound, and the vibrato was inoperative.

At this point Book No. 7 is brought into play. It deals with maintenance, data, and trouble-shooting. By using the trouble-shooting charts, which proved invaluable, the builder was able to localize and repair all four problems. The sustain simply required adjustment of two contacts; the tone generator had a defective divider network, which was replaced; a capacitor in the preamp section of the tibia voices was wired backward; and a bad transistor in the vibrato oscillator caused its malfunction. If you have an electronic background, pinpointing a problem with the aid of the trouble-shooting charts is simple; if you do not, a phone call or letter to Heath's technical department should soon eliminate the problem. We found Heath's parts replacement program very good, but make sure you use the proper part number and name when ordering a replacement.

Next the organ must be tuned. The C generator is pre-tuned at the factory and the builder adjusts the other
adapted to four other Thomas/Heathkit organs of two: the snare drum and the drum-roll (which actually the percussion voices also can be played manually at ically with the lower manual or the pedals or both. Any of organ. Its individual voices may be set to play automat-
cussion instrument that will add ten new voices to the Legato, however. The Bandbox is an electronic per-
gan is now complete and ready to play. 

Both of the accessories are remarkable additions to the Legato, however. The Bandbox is an electronic percussions instrument that will add ten new voices to the organ. Its individual voices may be set to play automatically with the lower manual or the pedals or both. Any of the percussion voices also can be played manually at will, and all will play simultaneously with the exception of two: the snare drum and the drum-roll (which actually is the snare-drum sound with an automatic repeat). The Bandbox installs readily in the Legato and can be adapted to four other Thomas/Heathkit organs.

The Bandbox control head and drum voicing circuit boards are shipped preassembled. A master harness makes connection to the organ relatively simple. There are two circuit boards to be constructed: the power supply and trigger board, and the cymbal voicing board. No problems were encountered in assembly, but when the

### Heath TO-101 Organ Voicing Options

<table>
<thead>
<tr>
<th>Main Organ</th>
<th>Solo manual</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tibia 2-ft</td>
<td>tibia 2-ft</td>
</tr>
<tr>
<td>Tibia 8-ft</td>
<td>tibia 8-ft</td>
</tr>
<tr>
<td>Violin 8-ft</td>
<td>violin 8-ft</td>
</tr>
<tr>
<td>English horn 8-ft</td>
<td>english horn 8-ft</td>
</tr>
<tr>
<td>Bass clarinet 16-ft</td>
<td>bass clarinet 16-ft</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Accompaniment manual</th>
<th>Cello 8-ft</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oboe 8-ft</td>
<td>oboe 8-ft</td>
</tr>
<tr>
<td>Diapason 16-ft</td>
<td>diapason 16-ft</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pedals</th>
<th>String bass 8-ft</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major flute 8-ft</td>
<td>major flute 8-ft</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tremulants</th>
<th>Vibrato</th>
</tr>
</thead>
<tbody>
<tr>
<td>Slow</td>
<td>Slow</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Percussions</th>
<th>Accompaniment to solo</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solo</td>
<td>Solo Tibias</td>
</tr>
<tr>
<td>Medium</td>
<td>Short</td>
</tr>
<tr>
<td>Repeat</td>
<td>Repeat</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Speaker controls</th>
<th>Accompaniment to Leslie</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solo to Leslie</td>
<td>Main &amp; Leslie</td>
</tr>
<tr>
<td>Solo to Leslie</td>
<td>Timbre Mellow</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Bandbox</th>
<th>Percussion voices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crash cymbal</td>
<td>Brush cymbal</td>
</tr>
<tr>
<td>Bass drum</td>
<td>Snare drum</td>
</tr>
<tr>
<td>Drum-roll</td>
<td>Bongo 1</td>
</tr>
<tr>
<td>Bongo 2</td>
<td>Block</td>
</tr>
<tr>
<td>Clave</td>
<td>Castanet</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Rhythm selectors</th>
<th>Playmate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waltz</td>
<td>Viennese Waltz</td>
</tr>
<tr>
<td>Jazz Waltz</td>
<td>Foxtrot</td>
</tr>
<tr>
<td>Boogie</td>
<td>Swing</td>
</tr>
<tr>
<td>Rumba</td>
<td>Water</td>
</tr>
<tr>
<td>Cha-Cha</td>
<td>Beguine</td>
</tr>
<tr>
<td>Tango</td>
<td>Rumba</td>
</tr>
<tr>
<td>Bossa Nova</td>
<td>Bolero</td>
</tr>
</tbody>
</table>

The unit was given its initial test our kit builder found that the etching of the cymbal voicing board was defective. By scraping away some unwanted foil he was able to make the unit perform flawlessly.

The Playmate is an electronic rhythm device that automatically produces fifteen different rhythms when used (as it must be) in conjunction with the Bandbox, and will trigger Bandbox voices or organ voices. There is no assembly to the Playmate; it simply is wired to the Bandbox, which serves as its power supply, and to the organ. After two signal-level adjustments, required for proper operation, the unit performed beautifully.

With both accessories installed the array of buttons, tabs, keys, and other controls is indeed impressive, and the gamut of effects that it makes possible is virtually inexhaustible. The main rank of controls running around the top includes (from left to right) the pedal voicing tabs, pedal sustain switch, tremulant tabs, accompaniment manual tabs, solo manual tabs, reverb and sustain controls, percussion tabs, and speaker controls. On the left cheek block, flush with the upper manual, are the power on/off switch, Leslie speaker control, repeat rate control, pedal volume control, and manual balance control. The Leslie switch controls the drive motors that rotate the speaker's baffle and has three positions: slow (celeste chorus), off, and fast (tremolo). The manual balance adjusts solo and accompaniment outputs with respect to each other, while keeping the over-all volume level more or less constant.

To the right of the upper manual is the chimes switch, which converts the center portion of that manual to a bell-like sound whose precise tone color depends on the setting of the solo-manual tabs.

At the left side of the vertical panel above the lower manual is the Color-Glo switch. In the cheek block to the right of the lower manual are the Bandbox controls: the percussion-effect tabs themselves, each with pedal, off, and accompaniment positions; the duo/on switch (whose duo position routes all selected percussion effects through both the pedals and the accompaniment manual); volume control; and the instantaneous keys for each of the percussion effects. Below the Bandbox is the Playmate, with tempo control, downbeat indicator light, Bandbox coupler switch, organ coupler switch, downbeat accent switch, and the individual rhythm selector buttons. The loudspeaker on/off switch and headphone jack are beneath the left end of the main keyboard housing. The expression pedal (actually a master volume control) is above the right end of the pedal bank. The tape-recorder jack is at the rear of the unit, on the main amplifier.

The Legato is a joy to use. The manual keys respond quickly, quietly, and smoothly. The upper manual is tilted slightly downward, permitting easy bridging (playing keys on both manuals simultaneously with one hand). The stop tabs are within easy reach. And—best of all—the many voices sound strikingly like the nonelectronic sounds they are intended to represent; the string-bass pedal tones and the Bandbox's drum-roll are particularly uncanny in this respect.

Used with the Bandbox and Playmate the Legato is a musical instrument whose range of capabilities is extremely wide and whose basic quality in terms of tone color and "feel" is well above average for a home instrument. If the sheer time involved in building the kit scares you off, just remember that you will be saving perhaps $1,000 or more by contrast to comparable wired instruments.
We believe the Heathkit AR-1500 to be the world’s finest stereo receiver. The experts seem to agree.

"The AR-1500 is the most powerful and sensitive receiver we have ever measured..."
— Julian Hirsch, Stereo Review.

"...a stereo receiver easily worth twice the cost (or perhaps even more)..."
— Audio Magazine.

"Great new solid-state stereo receiver kit matches the demands of the most golden of golden ears..."
— Radio Electronics.

The Heathkit AR-1500 AM/FM/FM-Stereo Receiver...379.95* (kit, less cabinet)
Mr. Hirsch goes on to say: “The FM tuner section of the AR-1500 was outstandingly sensitive. We measured the IHF sensitivity at 1.4 microvolts, and the limiting curve was the steepest we have ever measured... The FM frequency response was literally perfectly flat from 30 to 15,000 Hz... Image rejection was over 100 dB (our measurement limit)...”

“The AM tuner was a pleasant surprise... It sounded very much like the FM tuner, with distinct sibilants and a quiet background, and was easily the best-sounding AM tuner we had the pleasure of using...”

... all input levels can be matched and set for the most effective use of the loudness compensation. This valuable feature is rarely found on high-fidelity receivers and amplifiers...

“The phono equalization was perfectly accurate (within our measuring devices)... The magnetic phono-input sensitivity was adjustable from 0.62 millivolt to about 4.5 millivolts, with a noise level of ~66 dB, which is very low... When properly set up, it would be impossible to overload the phono inputs of the AR-1500 with any magnetic cartridge...

... it significantly bettered Heath’s conservative specifications. Into 8-ohm loads, with both channels driven, the continuous power at clipping level was 81.5 watts per channel. Into 4 ohms it was 133 watts per channel, and even with 16-ohm loads the receiver delivered 46.5 watts per channel. Nonetheless, the AR-1500 can drive any speaker we know of, and with power to spare...

“At 1,000 Hz, harmonic distortion was well under 0.05 per cent from 1 to 75 watts per channel... The IM distortion was under 0.05 per cent at levels of a couple of watts or less, and gradually increased from 0.09 per cent at 10 watts to 0.16 per cent at 75 watts... The heavy power transformer is evidence that there was no skimping in the power supply of the AR-1500, and its performance at the low-frequency extremes clearly sets it apart from most receiver’s...

“Virtually all the circuit boards plug into sockets, which are hinged so that boards can be swung out for testing or servicing, thus leaving the receiver unpluged. A ‘separator’ cable permits any part of the receiver to be operated in the clear—even the entire power-transistor and heat-sink assembly! The 245-page manual has extensive tests charts that show all voltage and resistance measurements in key circuits as they should appear on the receiver’s built-in test meter...

“With their well-known thoroughness, Heath has left little to the builder’s imagination, and has assumed no electronic training or knowledge on his part. The separate packaging of all parts for each circuit board subassembly is a major boon...

“In sound quality and ease of operation, and overall suitability for its intended use, one could not expect more from any high-fidelity component.”

From the pages of Audio Magazine:

...the AM-1500 outperforms the near-perfect AR-15 in almost every important specification...

“The FM front end features six tuned circuits and utilizes three FETs, while the AM RF section has two dual-gate MOSFETs (for RF and mixer stages) and an FET oscillator. The AM IF section features a 12-pole LC filter and a broadband detector. The FM IF section is worthy of special comment. Three LC stages are used and there are two 5-pole LC filters...

HEATHKIT ELECTRONICS CENTERS


...IHFN FM sensitivity... turned out to be 1.5 uV as opposed to the 1.8 uV claimed. Furthermore, it was identical at 90 MHz and 106 MHz (the IHF spec requires a statement only for IHF sensitivity at 98 MHz but we always measure this important spec at three points on the dial). Notice that at just over 2 microvolts of input signal S/N has already reached 50 dB. Ultimate S/N measured was 66 dB and consisted of small hum components rather than any residual noise. THD in Mono measured 0.25%, exactly twice as good as claimed! Stereo THD was identical, at 0.25%, which is quite a feat...

... the separation of the multiplex section of the AR-1500 reaches about 45 dB at mid-band and is still 32 dB at 50 Hz and 25 dB at 10 kHz (Can your phono cartridge do as well?)

“The real surprise came when we spent some time listening to AM... This new AM design is superb. We still have one classical music station that has some simultaneous broadcasting on its AM and FM outlets and that gave us a good opportu-nity to A-B between the AM and FM performance of the AR-1500. There was some high-frequency roll-off to be sure, but BOTH signals were virtually noise-free and we were hard pressed to detect more THD from the AM than from the FM equivalent. Given AM circuits like this (and a bit of care on the part of broadcasters), AM may not be as dead as FM advocates would have us believe!

“Rated distortion [0.25%] is reached at a [continuous] power output of 77.5 watts per channel with 8 ohm loads (both channels driven). At rated output (60 watts per channel) THD was lower 0.1% and at lower power levels there was never a tendency for the THD to 'creep up' again, which indicates the virtually complete absence of any 'crossover distortion' components. No so-called 'transistor sound' from this receiver, you can be sure. We tried to measure IM distortion but kept getting readings of 0.05% no matter what we did. Since that happens to be the 'limit' of our test equipment and since the rated IM stated by Heath is 'less than 0.1% at all power levels up to rated power output' there isn't much more we can say except that, again, the unit is better than the specification—we just don't know how much better...

“As for the amplifiers and preamplifier sections, we just couldn't hear them—and that's a commendation. All we heard was program material (plus some speaker coloration, regrettably unencumbered by audible distortion, noise, hum or any other of the multitude of afflictions which beset some high fidelity stereo installations. The controls are easy to use and quickly become familiar...

“As always, construction instructions are lucid enough for the inexperienced kit-builder and there is enough technical and informational use of the loudness compensation. This valuable feature... we know of, and with power to spare...

See and hear the new AR-1500 at your nearest Heathkit Electronic Center... order direct from the coupon below... or send for your free Heathkit catalog.

And Radio Electronics had this to say: “As you know, the original, the AR-15, has been widely acclaimed as one of the very best stereo receivers that has ever been made. Therefore, it's hard to imagine that anyone has gone ahead and built a better one. But spec for spec, the AR-1500 is ahead of the AR-15...”

Kit AR-1500, less cabinet, 53 lbs. ... 379.95*
ARA-1500-1, walnut cabinet, 8 lbs. ... 24.95

See and hear the new AR-1500 at your nearest Heathkit Electronic Center... order direct from the coupon below... or send for your free Heathkit catalog.
Advent's Smaller Speaker System


Comment: Advent's second speaker system is known as the Smaller Advent Loudspeaker to distinguish it from the company's first model which is known simply as The Advent Loudspeaker [HF test report, May 1970]. The newer model is smaller and lower in price. (The original Advent costs $112.) The economy entails relatively lower power output and the absence of a high-frequency level adjustment. In terms of wide range and smooth response, however, the Smaller Advent is a close runner-up to its predecessor, the chief difference—according to our tests—being in its slightly reduced bass output vis-à-vis the costlier Advent.

Compact and neat in its walnut-grained vinyl-clad cabinet, the Smaller Advent may be positioned vertically or horizontally on a shelf or on any suitable mount, such as a pedestal or bench or table top. It's a two-way system, employing an air-suspension woofer (8 1/2-inch diaphragm on a 9 1/2-inch frame) crossed over internally at 1,000 Hz to a small hard-dome center tweeter. Connections are made at the rear to polarity-marked binding posts. Rated input impedance is 4 ohms; recommended amplifier power is 15 watts per channel.

Response data taken at CBS Laboratories show speaker response running within plus or minus 6 dB from 33 Hz to 17,000 Hz, an excellent mark for any speaker system and particularly remarkable for one in this price class. Astute readers no doubt will note that the zero-reference level used here is 73 dB which is of course lower than the 80 dB or so customarily used for our speaker curves. Be assured, however, that while the Smaller Advent doesn't sound as loud as many other speaker systems for a given amplifier input, it is amply loud for normal listening in an average room. The response characteristic in general remains smooth, with no sudden peaks or dips, across the audible range. On audible test tones, the low end begins doubling at about 75 Hz; this effect does not increase until down to 45 Hz. Response at 30 Hz is mostly doubling. Up through the midbass and midrange, response is quite smooth and well balanced. Moderate directional effects are evident above 5,000 Hz, but they do not become very pronounced, and a 12-kHz tone remains audible off axis of the system. At 15.5 kHz a slope to inaudibility begins.

White noise response sounds very smooth and well distributed.

In the lab, the Smaller Advent needed 17.8 watts of input power to produce an output level of 94 dB at 1 meter on axis (our standard test procedure). Comparatively speaking, this puts the speaker into the low-efficiency class. The manufacturer recommends using amplifiers or receivers capable of furnishing 15 watts per channel, and we agree. In a way, the speaker's low efficiency is offset by its low impedance since at 4 ohms it will draw more power from most solid-state amplifiers than will a speaker of higher impedance. This approach, of course, tends to make more of a demand on a given amplifier, but it does work. The actual measured impedance is 4.8 ohms; the impedance curve rises to about 16 ohms at 1,000 Hz, then comes down to just above 4 ohms near 10,000 Hz, rising slightly to 8 ohms at 20,000 Hz. Because of the low impedance, Advent suggests inserting a 3-ohm, 5- to 10-watt resistor in the speaker line when driving more than one speaker system at a time from one output channel. (The resistor is supplied on request.)

The speaker could not be driven into significant distortion with steady-state power input of 100 watts, and it did just as well with pulse power peaks of up to 460 watts, at which level the measured output was 108.2 dB. These data indicate robust construction, good dynamic range, and the Advent's usability with just about any competent amplifier or receiver on the market.

We ran the Smaller Advent from several low-powered, moderately priced receivers and amplifiers and were able to enjoy extremely clean, room-filling sound. Like its larger ancestor, the new speaker system has a neutral, honest quality on all types of music. Its size and cost recommend it particularly for use in modestly priced stereo systems, built around an amplifier or receiver that furnishes at least 15 watts per channel into a 4-ohm load (of which there are many now available). It also would serve well in a four-channel setup in which both space requirements and quality reproduction would be considerations.

Smaller Advent Speaker Harmonic Distortion

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Input Level (dB)</th>
<th>80 Hz % 2nd</th>
<th>80 Hz % 3rd</th>
<th>300 Hz % 2nd</th>
<th>300 Hz % 3rd</th>
</tr>
</thead>
<tbody>
<tr>
<td>70</td>
<td>0.17</td>
<td>0.15</td>
<td>0.18</td>
<td>0.45</td>
<td></td>
</tr>
<tr>
<td>75</td>
<td>0.35</td>
<td>0.23</td>
<td>0.25</td>
<td>0.55</td>
<td></td>
</tr>
<tr>
<td>80</td>
<td>0.70</td>
<td>0.50</td>
<td>0.65</td>
<td></td>
<td></td>
</tr>
<tr>
<td>85</td>
<td>1.50</td>
<td>0.60</td>
<td>0.90</td>
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<tr>
<td>90</td>
<td>3.00</td>
<td>0.75</td>
<td>1.20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>95</td>
<td>6.70</td>
<td>1.50</td>
<td>1.80</td>
<td></td>
<td></td>
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<td>6.70</td>
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<td>101.5</td>
<td>7.50</td>
<td>3.00</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Distortion data are taken on all tested speakers until distortion exceeds 10 per cent level, or the speaker produces the spurious output known as buzzing, whichever occurs first.
UNANIMOUS ACCLAIM!

First test reports on the Zero 100 by the industry's leading reviewers

Brief excerpts reprinted below. Let us send you the full reports.

**HIGH FIDELITY** Sept. 1971

Altogether, this new arm strikes us as an excellent piece of engineering. It probably is the best arm yet offered as an integral part of an automatic player. Operation is simple, quiet, and reliable. All told, we feel that Garrard has come up with a real winner in the Zero 100. Even without the tangent-tracking feature of the arm, this would be an excellent machine at a competitive price. With the novel (and effective) arm, the Zero 100 becomes a very desirable "superchanger" with, of course, manual options.

**AUDIO** July, 1971

The Zero-100 performed just about as we expected after reading the specifications. Wow measured .08 per cent — that is in the band from 0.5 to 6 Hz. Flutter, in the band from 6 to 250 Hz, measured .03 per cent, both of which are excellent. Thus, the Garrard Zero 100 is certainly the finest in a long line of automatic turntables which have been around for over 50 years. We think you will like it.

**Stereo Review** July, 1971

Indeed, everything worked smoothly, quietly, and just as it was meant to. If there were any "bugs" in the Zero 100, we didn't find them. Garrard's Zero 100, in basic performance, easily ranks with the finest automatic turntables on the market. Its novel arm— which really works as claimed — and its other unique design features suggest that a great deal of development time, plus sheer imagination, went into its creation. In our view, the results were well worth the effort.

**The GRAMOPHONE** August, 1971

Reproduction quality was excellent with no detectable wow, flutter or rumble under stringent listening conditions. End of side distortion, which is always a possibility with pivoted arms, was virtually absent, due no doubt to the tangential tracking arm.

**Popular Electronics** August, 1971

Our lab measurements essentially confirmed the claims made by Garrard for the Zero 100. We used a special protractor with an angular resolution of about 0.5°, and the observed tracking error was always less than this detectable amount. The tracking force calibration was accurate, within 0.1 gram over its full range. The Garrard Zero 100 operated smoothly and without any mechanical "bugs."

**HI-FI** Fall, 1971

One could go on cataloguing the virtues of the Zero 100 indefinitely.

For 8-page test report booklet and a 12-page brochure on the Zero100 and the entire Garrard series mail to British Industries Company, Dept. 0-22, Westbury, N.Y. 11590.

Name:
Address:
City:
State:
Zip:

A genuine step upward in automatic turntables

**GARRARD ZERO 100**

The only automatic turntable with Zero Tracking Error

Mfg. by Plessey Ltd. Dist. by British Industries Co.

$18950

last bare and cartridge
Middle-of-the-road stereo people are missing the fun of Marantz.

BLAH PEOPLE. Middle-of-the-road people who only listen to the midrange because their power amplifier DISTORTS the high and low frequencies. Because their 250 watt amplifier is really only 250 watts right in the middle. Because that's where it's measured SMACK DAB IN THE MIDDLE! So when the power drops off on either side they miss the BOOM, KA BOOM of a bass and the crisp swisssshh of the wire brushes.

Now take the Marantz amplifier Model 250. Marantz says it delivers 250 watts RMS. That's 250 watts total RMS CONTINUOUS power. Over the whole powerpushin' listening range. Right through from 20 Hz to 20,000 Hz with total harmonic and intermodulation distortion at less than 0.1%! Fantastic!

Uncompromising music lover. Professional sound engineer. The Marantz 250 amplifier working in any system delivers continuous power at the critical EXTREME frequencies. EXTREME right. EXTREME left. EXTREME high. EXTREME low. Pure sounds. Total reality. Your kind of stereo.

Priced at $495, the Marantz 250 professional power amplifier is only one of a brilliant line of components, receivers and speakers from the makers of the world's most expensive stereo equipment. Including a $149.95 console amplifier.

Visit your Marantz dealer and listen to our line. Marantz stereo at any price is damn well worth it.

WEOF MARANTZ
We sound better.
How to Pick the One for You

IF YOU HAVE BEEN LED to believe that all the elements of a stereophonic component system have now been reduced to a level of scientifically definable parameters that lend themselves to meaningful comparison judgments, consider the FM antenna. Assuming that you have at least a modicum of curiosity about the advantages of an efficient FM antenna (and that in itself may be quite an assumption since the great majority of FM listeners seem quite content to make do with whatever antenna comes to hand), a quick perusal of the FM antenna listings in any electronics mail-order catalogue is likely to discourage you before you finish thumbing through the few pages devoted to these products. A typical “specifications list” for a line of antennas promises to solve all reception problems: black-and-white TV or color, FM and stereo FM. In one example we may read:

- Intensifies Color or Black-and-White pictures
- Excellent Front-to-Back ratios
- High dB gain
- Sharp—Narrow Directivity and Selectivity
- Flat TV Color response—Plus FM signal
- Protective Goldenized Finish

Following these illuminating blurbs (in which the italics are ours) is a table of suggested models, ranging in price from $9.95 to $29.95 depending upon how many elements—ten to thirty-six—are contained in each model. The next column in the table is entitled “Range,” and the ratings vary from “up to 75 miles” for the $9.95 job all the way to “up to 200 miles” for the under-$30 special. At the risk of belaboring the matter, if amplifier specs were written in this way you might read something like the following in an amplifier brochure:

- Power Output: a whole lot
- Frequency Response: very extended and good
- Distortion: hardly any at all
- Power Bandwidth: wider than you will ever require
- Construction: comes complete on a single metal chassis

If your first inclination is to blame the antenna manufacturers for this seeming lack of attention to meaningful specifications, a good deal of the fault lies with component manufacturers and high fidelity component users as well. In my opinion, a great injustice is done to a tuner or receiver by its manufacturer when he adds a flexible, 300-ohm antenna made out of twinlead and tells you that this is your “specially designed” FM antenna. If you read far enough into the operating manual (and how many of us do?) you’re sure to come across the suggestion that for really good FM reception (and most particularly, stereo FM reception) you’d be better off installing a proper outdoor FM antenna; but by the time you get that far in the book you’ve probably hooked up the flexible T-wire, turned on the set, tuned in what you consider to be a fair number of acceptable FM stations, and decided that an outdoor antenna is only for someone who lives in the boondocks and wants the thrill of listening to big-city FM.

Understanding Antenna Ads

Let’s go over that list of antenna characteristics and see what the manufacturer is trying to say. The first and third items really refer to the same thing: gain. Properly speaking, gain is the increase in signal level produced by an amplifier. An antenna, being...
a passive device, has no gain in this sense; but its
design will influence the signal levels that it can de-
Liver to your tuner or receiver from a given intensity
of radio-wave propagation. The antenna's gain in
dB is therefore simply a measure of relative effi-
ciency (by comparison to a simple, single element
in a half-wave dipole) in converting radio waves
into electrical signals. The higher the gain, the
stronger the signals the antenna puts out, and the
clearer your reception of relatively weak trans-
missions. In areas of high radio-wave signal
strength this characteristic is relatively unimpor-
tant because even a low-gain antenna may deliver
plenty of electrical signal, while a high-gain an-
tenna can deliver too much. That is, it can overload
the tuner's input section unless the antenna is inten-
tionally pointed away from the strongest sta-
tions. As you move farther and farther from the
transmitters, antenna gain becomes increasingly
important; in deep fringe areas it becomes perhaps
the most important of considerations.

Directivity refers to differences in gain depend-
ing on the physical orientation of the antenna. An-
tenna designs vary all the way from omnidirec-
tional (equally sensitive to any signal, no matter
which direction it comes from) to ultradirective (far
more sensitive to radio waves arriving from a single
compass point than it is to all others). Directivity,
then, refers to the antenna's ability to "focus" on
a single direction in responding to radio waves.
This characteristic is important in all sorts of areas,
whether the average signal strength is high or low.
It helps to overcome multipath interference by ze-
roing in on the radio waves propagated directly
from the transmitter and rejecting the bounced sig-
nals that come from other angles. And in deep
fringe areas where two stations on the same or adja-
cent channels may be fighting each other in your
tuner circuit, it allows you to aim the antenna at the
one you want to hear, minimizing the signal from the
other.

Front-to-back ratio is related to this concept. As I
shall explain later, some simple antennas are bidirec-
tional: equally sensitive at front and back but
relatively insensitive to waves arriving from the two
sides. Such an antenna can be aimed at the signal
you want to single out, but only if the interfering
signal is not coming from the opposite direction.
Whereas directivity refers, roughly, to the sensi-
tivity of the antenna at the front by comparison to
that at the sides, front-to-back ratio fills in the
fourth compass point in suggesting the total di-
rectional performance.

Antennas may also be characterized in terms of
frequency response—meaning the radio fre-
frequencies to which it will respond. A broadband an-
tenna is one that picks up a wide spectrum of sig-
als; a selective antenna is one tuned to a single
frequency or a narrow band of frequencies. What-
ever the antenna's bandwidth, however, it will not
respond with equal sensitivity (or gain) to all fre-
quencies in the band. The flatter the antenna is said
to be, the closer it comes to equal sensitivity across
the band. This characteristic is difficult to measure,
difficult to express, and difficult to evaluate in terms
of your individual needs. If you particularly enjoy
an educational station at the low end of the FM
band (say 88.7 MHz) and you buy a typical inex-
ensive antenna tuned to mid-band frequencies
around 106 MHz, the combination of poor antenna
response at the station's frequency and low trans-
mitter power (typical of the college stations) may
mean noisy or distorted reception of your favorite
station even though the commercial stations at the
middle of the band come booming in; but the spe-
cifics of any particular installation seldom are this
simple.

There are various trade names that are used to
suggest anodizing of aluminum antenna parts.
Anodizing inhibits corrosion and contributes mate-
rially to long-term performance of the antenna;
whether the anodizing is gold in color makes no
practical difference, though gold anodizing has become popular and often is made to sound like a very big deal when you read antenna ads.

You also will find expressions for the various design types (Yagi, Log-Periodic, etc.) and construction (ten-element, five-element, or whatever). These have about the same meaning as describing an amplifier in terms of circuit configuration and number of transistors. The description may suggest performance characteristics to the knowledgeable reader, but it conveys no performance specifics.

**FM, AM, and TV**

The many successful built-in antenna designs for AM radios, plus the almost universal inclusion of so-called rabbit ears on TV sets and flexible T-wire antennas with FM tuners and receivers, have led buyers to expect that whatever comes with the reception equipment must be antenna enough. For practical purposes the expectation may be justified with most AM equipment. Radio waves in that frequency range bounce and scatter in a variety of ways, producing useful signals even with the simplest of antennas. FM and TV propagation, on the other hand, occurs basically only along straight lines; theoretically if you cannot draw an unobstructed line from transmitter antenna to receiving antenna you should expect reception problems.

It is rather surprising to find that most TV-set owners recognize the need for an outdoor antenna if superior reception—particularly in color—is to be obtained, but fail to recognize the same need when it comes to FM (whose frequencies are neatly nestled between TV Channels 6 and 7, by the way). Some FM listeners, aware of the similarity of need, connect their FM sets to their TV antennas (often with a two-set-coupler that causes signal losses in both TV and FM) and sit back thinking that they have been more than fair with their FM equipment. Some equipment manufacturers even suggest this compromise. The fact is that most TV antennas are designed to sacrifice gain in the interest of greater bandwidth. The VHF elements of a TV antenna must be capable of picking up frequencies ranging from 54 MHz to 216 MHz (Channels 2 through 13). While no antenna can be designed to have uniform gain over this vast range of frequencies, the length of its elements determines the frequency at which it is optimally tuned; configurations employing more than one element can be dimensioned for reasonably uniform gain over the whole range if a reduction in average gain can be tolerated. Usually, two basic elements are found in antennas intended for TV reception, one longer element tuned to a frequency between Channels 2 and 6 and a shorter element tuned somewhere between Channels 7 and 13. Even if you were willing to ignore the reduction in gain necessitated by the broadband approach required in TV antennas, a quick calculation of the frequencies just cited (approximately 61 and 195 MHz) will show that they are about as far removed from the required 88 MHz-to-108-MHz FM band as Bach’s St. Matthew Passion is from Jesus Christ Superstar.

It is easy to forget that stereo FM requires approximately five times the signal strength of mono FM for equivalent, noise-free performance. Furthermore, stereo FM broadcasting is more subject
The standard half-wave folded dipole antenna has a bidirectional receiving pattern. That is, it is most sensitive to signals arriving perpendicular to its element, whether they come from the front or from the back.

Adding a reflector element to the folded dipole makes its reception pattern more directional. The "front" of the antenna is the end on which the dipole loop is mounted.

The double-dipole "turnstile" antenna is omnidirectional. It has no front or back since the signals minimized by one element will be picked up by the other.

The "conical" antenna has the same directional response as a simple dipole, but has somewhat more uniform response across the frequencies of the FM band.

A multi-element Yagi has relatively high gain and a narrow angle of directivity. It may have more elements than are shown here, including active (or driven) elements, reflectors, and front-positioned "drivers."

The Log-Periodic antenna, while different in design, is similar to a Yagi in terms of performance characteristics. Its element count also may vary with intended use.
to multipath interference than is mono FM. Multipath in FM is akin to "ghosts" in TV; both are caused by the reception of more than one signal from the same station as radio waves bounce off nearby structures or topographical features in your neighborhood. The bounced signals, following a longer path, are slightly delayed and in effect interfere with the main signal beamed directly from the station. The result can be audible distortion and, in extreme cases, loss of stereo separation. As I've already suggested, if an FM antenna is to be effective in reducing multipath interference it should be sensitive to the direct, unreflected signal while rejecting the undesired reflections. The simple dipole antenna (approximated by the T-wire) is particularly unsuitable for multipath problem areas since it can suppress bounced signals effectively only if they come at the antenna from the sides—that is, parallel to its element.

Choosing an Antenna

The generalization that the simpler types of antennas are for metropolitan areas or suburban use and that the highly directional types are for fringe areas no longer holds true. To determine what factors are important in selecting an antenna, let's examine the generally recognized reception-area classifications starting with the center city.

Signal strengths often will be quite high, so that antenna gain is of relatively little importance. Transmitters may be at different compass points from your location, in which case an omnidirectional antenna may be called for. But if multipath problems exist they are likely to be accentuated by an omnidirectional antenna, and a more directional antenna may be called for. If this results in the loss of certain signals (because the stations are weak and outside the directivity pattern of the antenna chosen), the only solution is to include a rotator in your installation. This may double the cost of the total installation, but the sum still represents but a small fraction of the cost of a first-class tuner.

In all likelihood, however, this condition will rarely occur, for even the most directional antennas will pick up signals of some magnitude from the nulled directions. Thus while a signal might be received with an intensity of 10,000 microvolts if a given directional antenna were pointed directly at it, the same antenna rotated 90 degrees off target may well put in the station at 1,000 microvolts or more, which would be more than adequate. Some inner-city antennas (Channel Master makes one) have little gain but are extremely directive, with high front-to-back ratios—at once controlling multipath and minimizing the possibility of overload.

Speaking of signal strength, the Federal Communications Commission regards 1,000 microvolts as an "inadequate" signal and tells you in effect that you take your chances on anything less. Compare this philosophy with the sensitivity claims (usually around 2 microvolts for mono reception) made by most tuner and receiver manufacturers and you begin to see how easily the antenna question can get sidetracked. Remember, however, that the few microvolts needed for minimal mono reception tell you nothing about the signal strength required for full tuner quieting in mono—let alone stereo. Most component-quality equipment will reach optimum performance with signal strengths of at least 100 microvolts; but if this signal strength represents the weakest station you want to receive well, then the average signal strengths your equipment has to deal with will be considerably higher. In these terms the FCC's 1,000-microvolt figure, though it is ten times higher than the actual requirements of most component systems, suggests the general range of signal strengths with which they should be dealing.

If it is true that suburban dwellers are fast becoming the majority of our population, then the FM listeners among them are indeed fortunate; close-in suburbia, generally speaking, offers the closest available approach to an ideal FM reception area. Stations are usually off in one direction—in the city to which the particular suburb is tied. Distances from the stations are about optimum: Locally reflected signals are relatively weak, while the primary, desired signals are strong enough that antennas of moderate gain and directivity (and cost) are very effective.

Of course, problems may still arise in specific situations. If a suburban area is equidistant from two metropolitan areas, a rotator may be required to do equal justice to stations in each city. Two separate, moderate-gain antennas on the same mast (but vertically separated by at least three feet to prevent interaction) may turn out to be less expensive than the antenna-plus-rotator combination.

Far-out suburban areas (and by that I mean over thirty-five miles or so) are best serviced by a high-gain, highly directive Yagi or Log-Periodic multi-element antenna intended specifically for FM service. The narrow beam pattern that characteristiclly is obtained with such antennas requires careful orientation of the antenna during installation. If your tuner is equipped with a signal strength meter (or some other form of signal strength indicator such as an oscilloscope tube), orientation should be performed by one person while the other observes the indicator, tuning to the desired stations. The one good thing that can be said about such remote locations is that they are less likely to be plagued by multipath problems; primary signal strength is so low that any reflections are likely to be below the noise threshold of the receiver or tuner. On the other hand, such remote areas are more likely to be serviced by stations from various points on the compass, so that a rotator is...
almost a must. If a rotator is installed, the problem of initial orientation is of course eliminated since you will want to "tune" your antenna specifically for each station received and you can do this in the comfort of your listening room, observing the signal strength indicator as the antenna turns.

As you can see, the antenna suggestions made for these reception-area classifications have a good deal of overlap; and you can find exceptions to the general rules outlined. For example, with tuner sensitivities at almost the theoretical limit less emphasis need be placed upon gain and more upon directivity, uniformity of response across the FM band, proper impedance matching (in antenna, transmission line, and receiver input), and front-to-back gain ratio. Unfortunately, many antenna manufacturers seem reluctant to publish these technical specifications, preferring to stress structural features such as anodization and ruggedness of the array when subjected to hurricane-force winds. Certainly these characteristics are important; you will want to make sure that the installation continues to function for more than one season. Still, it would be most helpful if more antenna manufacturers would tell us what performance level to expect as well.

### Tips on Installations

The professional services of a firm that specializes in antenna installation are strongly recommended for all but the simplest of rigs—say those having a short mast mounted on a flat roof. You won’t enjoy your home FM set while confined to a hospital bed after a serious fall. And professionals are best equipped to insure permanent installation of the supporting mast (which, in some instances, may have to be a tall structure, supported by guy wires and the like). An antenna that is sloppily affixed to its mast can rotate (even without a rotator) under the influence of wind and can actually cause

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### The Missing Specifications

It took a very long time for all manufacturers to quote specifications for their amplifiers and tuners in a more or less standard fashion. Descriptive literature ranges all the way from the tell-nothing example we cited at the beginning of the accompanying article to very complete specifications replete with polar-pattern drawings, gain figures, and data that seem almost too complex for the consumer to understand or use in comparing products. At the very least, I would like to see the following specifications:

1. A statement (in dB) of the gain of the array, and specified for at least three frequencies in the FM band—preferably the same ones (90, 98, and 106 MHz) that are used in other FM specifications.
2. A statement (also in dB) of front-to-back ratio. The higher the figure, the better the specification.
3. A statement of impedance, again given at 90, 98, and 106 MHz.
4. A statement about the directional characteristics of the array. This spec is best given as the half-power beam width, in degrees. Since half power is 3 dB below full power, the half-power point would be the off-axis direction at which antenna gain is 3 dB below the on-axis gain. Measure the angle between the axis and this off-axis direction and you have half the beam angle, since half-power points are symmetrical about the axis. In this case, the lower the number of degrees, the narrower the beam and the more directional the array.
5. Finally, a statement of standing-wave ratio (abbreviated SWR or VSWR) can prove helpful in evaluating the merits of a given antenna. It is a measure of the impedance mismatch between the antenna and the transmission line. The ratio is 1 when there is a perfect match; higher numbers indicate the relative severity of the mismatch. A complete statement of this specification would include SWR readings for various frequencies across the FM band.

Using data for two of the models on which tests were run for this issue, here are two examples to give you an idea of what meaningful electrical antenna specs should look like:

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Finco</th>
<th>JFD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>FM-4G</td>
<td>LPL-FM-10A</td>
</tr>
<tr>
<td>Gain at mid-band</td>
<td>8.8 dB</td>
<td>9.9 dB</td>
</tr>
<tr>
<td>Front-to-back ratio</td>
<td>22.5 dB</td>
<td>26.0 dB</td>
</tr>
<tr>
<td>Nominal Impedance</td>
<td>300 ohms</td>
<td>300 ohms</td>
</tr>
<tr>
<td>Half-power beam width</td>
<td>42°</td>
<td>43° (±5°)</td>
</tr>
</tbody>
</table>

Note that the JFD model is a ten-element array costing considerably more than the four-element Finco unit. The two are not, strictly speaking, competitive models since they are designed for different reception areas.

In addition to the electrical specs shown above, each manufacturer also supplies data regarding turning radius and other installation hints. Armed with this kind of information and an awareness of your particular location and its reception problems you should be in a much better position to choose the correct antenna for your needs.
induced noise in the reception—not to mention the hazards should the array collapse.

The choice of transmission line (or lead-in cable) should not be left up to the installation firm, however, as they are most likely to sell you the least expensive 300-ohm twinlead cable. Even if properly molded to resist weather, this type of flat cable is particularly susceptible to ignition noise interference from passing vehicles and to other electrical interference.

The two types of cables that are recommended for good antenna installations are 75-ohm coaxial cable and shielded 300-ohm twinlead. The former type consists of an inner insulated conductor surrounded by a flexible metallic jacket or shield and has a nominal impedance of 75 ohms. If your tuner or receiver is equipped with 75-ohm antenna terminals, this cable is ideally suited for use in your FM antenna installation. Many sets are equipped only with 300-ohm antenna terminals, however, and for this reason shielded 300-ohm twinlead transmission line was developed. It is similar to the regular flat-cable format, but the two conductors (which run side by side, separated by molded plastic) are entirely surrounded by a jacket of conductive material. This outer shield should be connected to a proper ground at the tuner or receiver. You can use 75-ohm lead-in with a 300-ohm antenna and 300-ohm input connections on your tuner or receiver, but this setup would require matching transformers at both ends of the 75-ohm cable.

Antenna manufacturers often will supply a matching transformer that is to be connected between the antenna structure itself and the transmission line. This is necessary because the array’s inherent output impedance usually is between 50 and 75 ohms, whereas the transmission line to which it is connected commonly is of the 300-ohm type. The absence of such a transformer (called a balun) is not very serious, however, unless you are looking for every last microvolt of signal you can get—as in extreme fringe areas.

### FM Antennas—

**Six Models Compared**

**Risking some raised eyebrows** among my neighbors in Great Neck, New York, I amassed a total of six FM antennas in various price categories and made an arrangement with my local service shop to come around Mondays and Fridays to take one down and put up the next for testing purposes.

First, I wanted to know just how each antenna compared in pulling power to that of an indoor 300-ohm twinlead T dipole of the type often supplied with tuners or receivers. To be realistic, I decided to compare the outdoor antennas with this indoor dipole while it was mounted at ground-floor level. The comparison between the dipole and outdoor models therefore defines the contrast in practical performance to be expected and not the dB-gain of the antennas tested.

The outdoor units were mounted 30 feet above ground level and were oriented due west (toward New York City and most of the available FM stations) for the major part of the tests. The indoor dipole also was oriented in a westerly direction.

Since all but one of the outdoor antennas are delivered for 300-ohm use only, we used shielded 300-ohm downlead in hooking them up. In order to measure actual signal strengths (microvolts) appearing at the antenna terminals of my receiver, I calibrated the FM tuner by means of an FM generator. This particular tuner develops automatic gain control voltages that are proportional to incoming signal strength. For example, 3.0 volts of AGC corresponds to a signal input of about 400 microvolts. Readings are not entirely consistent across the dial,
Channel Master Stereo Probe, Model 4408
This nine-element Yagi antenna consists of four driven elements and five director elements. (The director elements are at the front end of the array.) Note in the bar graph that every station of the nineteen measured delivered a signal strength in excess of 1,000 microvolts, the highest was 15,000 microvolts. The reading for 92.3 MHz was highest in testing both the reference dipole and the Stereo Probe, giving a fair confirmation of the test procedure and also a quick indication that there was an improvement—for this station—of 15:1, or about 24 dB. This model displayed the greatest directivity of any tested. It costs about $37.

Lafayette 10-element FM Yagi (Cat. 18-01281WX)
The results of the measurements, as shown in the bar graph, represent somewhat less gain than that obtained with the Channel Master unit, and there is an obvious falling off of response at the high end of the band; signal strength readings are seen to vary from a low of 400 microvolts to a high of 7,000. Although the element count is high, the $12 price is the lowest in the group.

Winegard Model SC-650 FM Yagi Antenna
This eleven-element unit includes a weatherproofed, sealed circuit board and balun arrangement for connecting either 75-ohm or 300-ohm transmission lines, the only antenna in the group so equipped. There are four driven elements, one reflector element and six director elements. Gain measurements vary from a low of 1,800 to a high of 30,000 microvolts. From a gain standpoint, this turned out to be the hottest antenna we measured and it is a close second to the Channel Master in directivity. It would certainly be the one to use in extreme fringe areas. Such a unit may be too hot for metropolitan or suburban use. The Winegard lists at $45.95.
JFD Log Periodic Antenna Model LPL-FM10A
This ruggedly constructed ten-element antenna was the only Log-Periodic design in the group. Output figures for the nineteen stations range from a low of 1,000 microvolts to a high of about 5,500. Though these figures are not very high, the gain seems a bit more consistent across the entire FM band than it did with the models previously measured. Of the antennas measured, this is the last of those intended primarily for long-distance reception. It lists at $52.15.

Jerrold FM-5 Yagi Antenna
The output readings for this moderately priced unit are just about as high as (and in one instance higher than) those obtained for the earlier units containing a greater number of elements. This is an index of greater beam width—rather than comparable gain—as explained in the accompanying text. Readings for the FM-5 ranged from 1,000 to 10,000 microvolts. It lists at $16.50.

Finco FM-4G
I saved this popular antenna made by the Finney Company for last only because it happens to be the newest version of an antenna (the FM-4) that I have used for several years. The "G" suffix merely indicates that the elements have a gold protective treatment. In general, readings were somewhat higher than those obtained with the Jerrold unit although they are in the same class, ranging from a low of 1,200 microvolts to a high of 12,000. The Finco displays a little more directionality than the Jerrold, but much less than the more elaborate designs of course. The FM-4G lists at $27.25.
however, so in the interest of accuracy I calibrated the tuner at 88, 95, 100 and 108 MHz and used that calibration closest to the received station's frequency to determine signal strength.

Since this portion of the test was concerned only with the gain of various antennas, I concentrated on stations that are strictly local to my area—stations located 800 kHz apart on the dial, from 90.7 to 105.9 MHz. (Stations below 90.7 were received, but being educational stations their broadcast schedules were too erratic to be used for test purposes.) To maintain fairly uniform atmospheric conditions I ran all the tests between 7:00 and 9:00 p.m., though humidity and temperature, which can affect reception, did vary from day to day, of course.

The Measurements

The accompanying test graphs show the basic frequencies to which I tuned, the station call letters, and the signal strengths received using the indoor dipole. As you can see from the black bars in the graphs, the weakest signal measured with the indoor dipole was 50 microvolts, while the strongest was 1,000 microvolts—and there was only one such strong signal among the nineteen local stations measured.

The tested antennas are not all of the same type, and the results demonstrate the differences. The first four models are multi-element designs intended for fringe-area or deep-fringe use. The last two are simpler in design and more appropriate for the location I live in—a suburban area where FM signals are fairly strong and arrive more or less from one direction. Most of the stations used in the test lie a little south of due west from the house; WFME, with its transmitter in West Orange, New Jersey and WFUV in the Bronx are closest to due west.

The simpler antennas, having a wider half-power beam than the multi-element designs, tend to be (relatively speaking) more sensitive to off-axis stations; therefore you will find in comparing results what appear at first glance to be anomalies in the signal-strength data: for example the readings for WPAT (93.1 MHz, with a transmitter atop New York’s Chrysler Building) obtained using Winegard’s SC-650 (8,000 microvolts) and Jerrold’s FM-5 (10,000 microvolts). Conversely, for WFUV (90.7 MHz) the Jerrold reading was 2,200 microvolts whereas the Winegard clocked 3,000.

It is the directivity of the two designs that explains the differences in gain. I confirmed this with a rotator, increasing the signal strength for Manhattan stations by zeroing in on them—requiring an orientation shift of some 15 degrees toward the south.

To achieve insight into the directional character-
involve a comparison with an indoor twinlead T antenna, I also wanted to measure a broadband TV antenna in terms of signal-pulling power. In one respect the TV job did quite well. There was absolutely no difference in gain across the FM band between 88 MHz and 108 MHz. This is not altogether surprising since the broadband TV antenna has to cover a much greater range of frequencies than the 20 MHz of FM. Actually the entire FM band utilizes only a bit more broadcast “space” than three TV channels, each TV channel being 6 MHz wide.

On the other hand, the TV antenna did not do so well in terms of signal strength, averaging only about half the gain of even the least expensive (and least complex) of our FM-only samples. In terms of signal-to-noise ratio this represents 6 dB of degradation—not too significant in my listening area, where signal strengths with a good antenna measure in the thousands of microvolts, but highly significant if you’re in a location where every microvolt counts (or if you’re trying to do a bit of long-distance FM station-seeking). For these tests I connected the TV antenna directly to the receiver; in most TV-antenna installations, however, the FM tuner or receiver is in parallel with a TV set. With a typical two-set coupler installed, or with a direct connection—that is, omitting the coupler and breaking into the TV line with another piece of twinlead attached to your FM tuner—the resulting mismatch could cause losses from 3 dB on up, depending upon variables such as cable lengths, input impedance of the two sets in question, and so on. In short, although the TV antenna was given every possible break it still could not compare with antennas designed solely for FM.

Some readers may question the validity of these tests in some respects. I’m entirely aware that a proper set of laboratory measurements designed to study the characteristics of these antennas would have involved much more complex equipment and measurement techniques. The purpose, however, was not to fill in the gaps in the manufacturers’ specifications or to double-check those that are available. I have tried to indicate just how important an outdoor FM antenna can be in terms of signal strength, multipath problems, and the like compared to the twinlead indoor antennas many FM listeners use today, and to document the relative performance characteristics of the six models under test.

I haven’t discussed station logging at all. But during the time when the Winegard antenna was on my roof I switched to a modern, high-sensitivity tuner and was able to log a station at every 400 kHz (that is, alternate channel) on the dial pointer. That number of stations (47 in all; a couple of low-end stations were off the air at the time) was received with the antenna oriented just toward New York City! In trying to correlate results by using the rotator I frankly lost count at about 75 stations. There were at least ten instances of stations only 200 kHz away from local stations, and at least four stations received from the northeast were different from stations received on the same frequencies when the antenna was oriented to the west.

With the antenna turned toward the west, 28 of the 47 stations logged were transmitting stereo. Of these, 25 required no reorientation of the antenna to avoid multipath distortion problems, while the other three were corrected by rotating the antenna some 15 to 30 degrees away from due west.

The tests cover products of six companies and represent two basic groups of antennas, arbitrarily arranged in the order of testing rather than by price or element count. These same companies often make other models as well. Jerrold, for example, has the ten-element FM-10 in addition to the five-element model we tested. The first choice you must make in selecting an FM antenna involves the basic type, rather than a specific model. The preceding article discusses the factors that will influence the choice depending on your location and the reception problems you need to prevent or overcome.

Let’s recap two of those considerations. You will not need a particularly hot antenna (in terms of pure gain) unless you live far from the stations you want to receive; how far is far will depend partly on the intervening terrain and partly on the transmitter power of the stations in question. Directionality will help in deep-fringe areas (where stations may come in on the same or adjacent channels) or in center-city locations (where multipath tends to be a severe problem), but is somewhat less important—generally speaking—in intermediate areas. In many suburban locations an excessively directional antenna may require a rotator, whereas one with a wider angle would not.

The tests have shown that all six antennas should, in terms of gain, do a better job than you can expect from a comparable broadband TV/FM antenna and a much better job than a simple dipole. Balancing price, gain, and directionality against each other, the moderate-gain Yagis are an excellent choice for the suburban areas where most of our readers live today; and of the two models tested the Finco FM-4G would appear to have a slight edge. Of the more elaborate units, the Channel Master and Winegard are particularly attractive, while the Lafayette comes at a bargain price. It should be emphasized, however, that the differences between antennas in a given class tend to be less than those between classes.

If a specially designed antenna costing perhaps $20 or $30 can double the pleasure you get from a $300 investment in an FM receiver or its equivalent, it’s obvious why you (and the receiver manufacturers) should cover your ears against the siren call of make-do alternatives.

L.F.
We were the first to take 4-channel seriously.

That’s why we can offer you the widest choice of 4-channel equipment today.

When 4-channel was only a gleam in the audiophile’s eye, we were starting production on the world’s first 4-channel receiver.

Now that 4-channel is obviously here to stay and others are just coming out with their initial products, we have five highly refined second-generation components on the market.

How else could we remain the leader?

Fisher TX-420
Fisher 601
Fisher 801
<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
<th>Features</th>
</tr>
</thead>
</table>
| Fisher 801 | 4-channel AM/FM stereo receiver  
Four separate control and power amp channels  
250 watts  
Handles all existing and proposed systems of 4-channel reproduction  
Electronic FM tuning with no moving parts  
Separate wireless remote control tuning unit included  
Toroidal filters on FM  
Dual slide volume controls  
Drives 8 speaker systems (4 main plus 4 remote)  
Price: $749.95 | Price: $749.95 |
| Fisher 601 | 4-channel AM/FM stereo receiver  
Four separate control and power amp channels  
200 watts  
Handles all existing and proposed systems of 4-channel reproduction  
Electronic FM tuning with no moving parts  
Separate wireless remote control tuning unit included  
Toroidal filters on FM  
Dual slide volume controls  
Drives 8 speaker systems (4 main plus 4 remote)  
Price: $599.95 | Price: $599.95 |
| Fisher TX-420 | 4-channel converter and cartridge player  
Converts existing stereo systems to 4-channel  
Aids two separate control and power amp channels  
50 additional watts  
Discrete and matrix 4-channel capabilities  
Also incorporates complete 4-channel 8-track tape cartridge player similar to CP-100  
Price: $299.95 | Price: $299.95 |
| Fisher 40 | 4-channel music center  
4-channel AM/FM stereo receiver  
4-speed automatic turntable and 4-channel 8-track tape player, all on one compact chassis  
Choose any 4 speakers you wish  
Four separate control and power amp channels  
100 watts  
Handles all existing and proposed systems of 4-channel reproduction  
Dual slide volume controls  
4-speed automatic turntable has magnetic cartridge, diamond stylus, cueing control, automatic shut-off  
Tape cartridge player is similar to CP-100  
Price: $499.95 | Price: $499.95 |
| Fisher CP-100 | 4-channel 8-track tape cartridge player  
Four separate channels from tape head to output  
Plays both 4-channel and standard 2-channel 8-track tape cartridges  
Utilizes 3-3/4 ips tape speed for superior fidelity  
Push-button program controls  
Price: $169.95 | Price: $169.95 |
| Fisher CP-100 | 4-channel 8-track tape cartridge player  
Four separate channels from tape head to output  
Plays both 4-channel and standard 2-channel 8-track tape cartridges  
Utilizes 3-3/4 ips tape speed for superior fidelity  
Push-button program controls  
Price: $169.95 | Price: $169.95 |
Has the “rock revolution” of the '60s influenced the direction of music students?

FOR THE FIRST TIME in the history of the world, the kids are creating music, and for once it's the adults like me who are peeping enviously into their world." Thus spoke Leonard Bernstein on the revolution in rock. And a revolution it was! In 1964 manufacturers turned out fifteen thousand Beatles wigs a day. Soon the Establishment outdistanced the fans. Composer Ned Rorem compared the Beatles to Schubert. Richard Poirier, English professor and editor of Partisan Review, painstakingly analyzed their lyrics. And I called Sgt. Pepper’s a “work of art” that had sprung from “unexpected, nonart sources.”

Now the Beatles have broken up. Skirts have fallen to below the knee. Instructors talk quietly in front of their classes, and it’s hard to believe the '60s happened at all. In the calm that has followed the storm, HIGH FIDELITY asked me to assess the role rock played for this generation of music students. The one generalization I can make is this: It hardly touched the most specialized students at all, those who made an early commitment to music and appear almost driven in the pursuit of their metier. Avant-garde singer Cathy Berberian may have recorded twelve Beatles hits, but the barrier between the genres never disappeared. I recall a composer's wife gyrating—ever so slightly—to a Jimi Hendrix song. "He really has something there," she said. "Yes," her husband replied, "lots of major and minor chords!"

Rock never became the great or important music some thought it would. If it had moved into more artistically interesting areas, perhaps more students would be involved in it today. Or it could be the other way around: If more students had involved themselves with rock, it might have been more interesting today. In any event—as it stands—it never moved beyond the initial forecasts of the engulfed adult critics.

The geography of this article may at first appear to be excessively restricted (New York, we are always told, is not America). However, I have deliberately focused on musical institutions in New York City rather than on something called a cross section of the national scene because for the serious student of music New York is still the most powerful magnet in the world. The conservatories of other cities train many musicians, as do the music faculties of many colleges and universities around the country. But nowhere is there a greater concentration of training facilities or jobs than in New York. What is more, nowhere are there more facilities available—even including the public school system—to the devoted though noncareer-oriented student than in New York.

*The National Orchestral Association, a student orchestra that gives concerts in Carnegie Hall, shows the following distribution for 1971/2: Of 74 members, 19 come from New York state; 7 from Ohio; 6 from Michigan; 5 each from Massachusetts and Pennsylvania; 3 from New Jersey; 2 each from Japan, Iowa, Kentucky, and South Dakota; and 1 apiece from Australia, Barbados, Brazil, France, Germany, Holland, Israel, Philippines, Ukraine, Alabama, California, Delaware, Illinois, Indiana, Missouri, Wisconsin, North Carolina, Oklahoma, Oregon, Tennessee, Texas, and Virginia.
To say that rock fell short of some critics' predictions is not to deny its role in the culture of our time. Many art students at Music and Art, a specialized public high school in New York, and many dance and drama students at the Juilliard School, the prestigious conservatory, are active in rock-and-roll groups. The point seems to be this: If you choose a field outside of music, then you can afford to play with rock. But if you choose music as your career, the competition and demands are so formidable and the devotion so single-minded that total specialization seems to be the only course.

Thus it follows that the younger and less focused the musician, the more open and uncritical he is. From the Henry Street Music School, through the High School of Music and Art, up to the Columbia undergraduates, one finds many students playing rock-and-roll. But rarely do any of these students move on to more advanced levels of musical training. In Columbia's graduate school of music, in conservatories such as Juilliard, Mannes, or Manhattan, in the training orchestras of New York, rock made virtually no dent at all.

The Henry Street Music School, a famous and old school on the lower East Side of New York, services about six hundred kids—black, Spanish, Chinese, and Jewish. A nonaccredited community school requiring no entrance exam, Henry Street is not a conservatory where people go to receive professional training. Rather is it a relaxed place for neighborhood children who have more than a passing interest in music. I spoke to director Henry Frierson, a large, expansive black man who complained that the older generation resists change. "We must not fight it," he says. "We must use rock to turn the kids on." Instead of performing Messiah last Christmas, the kids produced Frieron's Gospel/Cantata, a work the composer says combines arias and recitatives with blues and jazz. "Everyone wanted to be a part of it," he says. "This is what they really love. I hear the kids saying all the time: 'I don't like Bach. I don't like Mozart. I do like Brubeck, Ellington, and Bernstein.'" Frierson says that his students rarely attend concerts at the large halls: "The music represents a life style too different from their own."

Even in a more sophisticated school, like the High School of Music and Art, traditional concert mores put the kids off. William Fischer, a thirty-nine-year-old black musician who teaches there, says Frierson's experience: "Once I had to take a class to Philharmonic Hall. I'd been given sixty free tickets to a concert conducted by Lorin Maazel—Mahler, Webern, and Richard Strauss. I had to threaten the kids that if they didn't go I'd give them a test that would bring down their grades. They went but didn't like it at all. They didn't care for the whole scene. The children want to integrate society socially, culturally, and politically. Traditional music has nothing they seek." I asked about the avant-garde concerts that the New York Philharmonic is sponsoring in Greenwich Village this year. "This music calls for a discipline the student rejects. In addition to that he doesn't like what he hears."

"Boulez represents the Establishment. No matter what he does downtown, he is still conductor of a large orchestra. Conducting a large orchestra means something to them that they think should not exist anymore. The string players at school are not any good because it takes so long to be a good string player. These kids prefer to do other things with their time."

Fischer pointed out that European Romanticism exerts no pull at all but that medieval and renaissance music is very big. His students have played pieces by Ockeghem and Obrecht over WBAI, a noncommercial radio station in New York connected with the Pacifica Foundation. "But with music of the eighteenth and nineteenth centuries," he said, "they are always striving, always learning, and when they finally do arrive, they find they have no audience. If a string quartet plays Haydn and Mozart after school, they will play to an empty house. If a group plays early music, or blues and jazz, then the house will certainly be full."

At Music and Art, I spoke to Chris DeCormier, a student in Fischer's American music class. Chris comes from a gifted musical family. His father, a choral conductor, graduated from Juilliard and his mother sings with her husband's group. Now a senior, Chris entered Music and Art on the violin, which he began to study at nine. He described the entrance exam to me; it sounded exactly like the one I took to enter the same school a generation ago. Not very much has changed: Guitar is still not formally taught, blues and jazz packed the house then, and good string players were always hard to find. (We had not, however, heard of Ockeghem.)

Chris, a perceptive and talented boy, deprecates rock and likes to play jazz. I asked him about rock opera, one of those movements which some critics have predicted would result in serious and important works. He put it down: "It's a clear-cut attempt to capitalize on a sick trend—that whole Revivalist thing. You see it in Bernstein's Mass and in Jesus Christ Superstar. Tommy [the first rock opera, written and performed by The Who and presented in the Metropolitan Opera House] was a genuine attempt to be creative. But the others that followed are just genuine attempts to make lots of money. And at that they will succeed."

Chris started to play trumpet a year ago and works at emulating Freddy Hubbard among others. He does not want to be a professional musician but plans to go into medicine. With medicine as his career he can move where his spirit and ears lead him without worrying if he will win that rare prize: a good job in music.

Moving up the ladder a bit to the undergraduate college level when the student has not yet settled Joan Peyser writes often for the Sunday New York Times and is the author of The New Music: The Sense Behind the Sound.
on a career, there is still some crossbreeding. I gave questionnaires to students in Columbia’s Theory I, a course that suggests more than a casual interest in the field but one that demands no expertise. Of the forty-eight who replied, only five had ever played any rock. Thirty-eight had played conventional instruments and attended concerts downtown. Only one of the five who played rock planned to become a music major; most of the remaining forty-three do.

In searching for a music major who had come from the “pop” side of the fence, I found Marty Laskin from North Bellmore on Long Island, a senior at Columbia and a friendly and articulate young man. Marty, who is studying composition, theory, and music history, has a jazz ensemble and played until after two the night before we met. Marty’s musical schizophrenia is a long-standing disease: His grandfather was a cantor, his father the leader of a society orchestra, and he himself began to play sax at four. I told Marty that in my weeks of interviews I had not found a single student who had come to “serious” music from rock. He offered this explanation:

“The problem with rock is that its defining limits are visceral rather than cerebral. It’s a visceral form of self-expression, and volume is often used to cover up a lack of technique. There are, of course, some good rock musicians: the Procul Harem and Blood, Sweat and Tears. But even they aren’t doing it. And then there are very bad ones. Sly and the Family Stone—that’s packaging blackness and selling it. It’s what I call Acid/Rock/Muzak.

“I have a lasting love for Ockeghem. The way he writes time! Sound structures time as, in the plastic arts, pigment structures space. Renaissance music is so appealing. It is written for any instrument and the amateur can play it easily. By the time you get to Gesualdo, that’s something else. Gesualdo isn’t easy to listen to.”

When I asked about his future, Marty answered that he wants to lock himself in a cave and write and play for about six years. The chances are that he won’t do that, but it’s hard to predict just what he will do. Such eclectic musicians are not the rule in the more specialized echelons of our musical institutions. Those students who have committed themselves to the serious pursuit of a musical career seem to have started when they were young, followed a straight and narrow path, and paid practically no attention to rock.

One Thursday afternoon, ten minutes before a rehearsal, I stopped in at the City Center to ease the situation regarding the National Orchestral Association. This training orchestra, directed by Leon Barzin, consists of eighty-five people between twenty and twenty-three years old. Their adolescence coincided with the golden age of rock. By asking for a show of hands, I learned that most study at conservatories, want careers in solo, chamber, or orchestral work, and spend many hours practicing each day. I asked how many had ever played rock. One timpanist raised his hand. Several others called out that they would like to play but they had never learned how, that they never had any time.

I spoke to Steven Koeppel, from Miami, who plays trumpet with the NOA. Also a member of the Brass Quintet and the Juilliard Orchestra, this twenty-year-old student rehearses every night and complains about the scarcity of practice rooms at school. He says that rock is much too loud. “I’ve never been to the Fillmore East. Once I went to a rock concert at Tanglewood—the Jefferson Airplane in 1969—but I had to sit on the back of the lawn because the noise was deafening.” As for his future: “What I want most is an orchestral job, but there’s not enough work to go around. In Minneapolis this year there was one opening for a trumpet player and 160 applied for the job. If I look at it realistically, I’ll probably land in the pit of a Broadway house.”

On entering Juilliard one expects to find a different musical world. Boys wear beards and pony tails. Girls wear dungarees and long cotton skirts. Surely rock must prevail. Nothing could be further from the truth. In eavesdropping this is what I heard in the halls: “I have trouble identifying the minor sixth interval. Sometimes it sounds almost major. After all, turned around, it is a major third!” And: “About the example you gave in class, you had too many consecutive downward leaps in your melody. You should avoid big leaps in general!” From the practice rooms—Chopin, Debussy, Haydn, and Liszt.

I walked into an L & M class (literature and materials) usually taught by Hall Overton. Mr. Overton is also a jazz musician, and I thought he might attract students interested in the “third stream” idea, an attempt to create serious “art” from jazz. He was away for the day and Rumanian composer Gheorghe Costinescu had taken over the class for him, analyzing Handel and Debussy at the piano. There were ten students in the class. After Costinescu finished, I asked them for a moment of their time. How many had come from rock or jazz? None. How many had ever played rock or jazz? None. How many planned to play rock or jazz? None. What would they like to do? Be great performers. Class dismissed. On the way out a Cuban boy stopped: “We all want to be great performers,” he said. “But that is not realistic at all. Each of us will probably teach at a respectable school.”

Later Costinescu told me of a student interested in rock. I spoke to Paul Amrod of Red Hook in upstate New York:

“I relate to rock most, but I want to learn about other compositional procedures. That is why I came to Juilliard.
"I relate to rock most," says Paul Amrod, from Red Hook in upstate New York. This opinion makes him unique among students at the Juilliard School.

The Bronx's Bruce Taub, a Ph.D. candidate at Columbia, believes Varese and Stravinsky made most of rock's "discoveries" first.

Volume in rock, says Columbia University student Marty Laskin, of North Bellmore, L.I., often covers a lack of technique.

Manhattanite Zizi Mueller, a sometime student at the Manhattan School and music director of the La Mama theater group, rejects rock music but identifies with rock culture.

Photos by Sheila Schultz

National Orchestral Association member Stevan Koeppel (left), from Miami, and Columbia student Tom Baker, from Milwaukee, agree that jobs in music may be scarce, but neither is deterred from pursuing such a career.
"I began to play organ in rock groups at fifteen. That was the time of Revolver and Rubber Soul. The Beatles were very important to me. But if you ask me if there are other students at Juilliard like me, the answer is simple: zero; not one! There are about one hundred and fifty pianists here and there may be three who can play some rock. The same thing is true of composers. Most of them are into early serial work. The Zeitmasse of Stockhausen is what they like. Webernism is the keynote here. These people are still turning out sonatlike pieces—with several movements—with everything written in.

"I am frustrated here. Last year they would not let me perform a work of my own at a small, unadvertized compositional concert unless I would notate it. That made me sick—that these people are so formalized. Dean Waldrop sent me a note asking me not to play rock in the practice rooms when there is a class going on next door. The piano tuners complain to me too."

Dean Gideon Waldrop has not embraced rock. He says that some Juilliard composers may have been somewhat influenced by rock but that it has not affected school policy. "Performers cannot play rock for their entrance exams. They play from materials set up for them—a Beethoven sonata, a Bach prelude and fugue, a contemporary work. If we ever learned that rock was developing a tradition and becoming a more sophisticated part of musical life, then we might make some changes in that direction. But at the moment it appears as a passing phase. What will supersede it? There will be something else."

Later, at a party, I met Hubert Doris, president of the Mannes School of Music. I told him that I had planned to call him to find out what role rock played in his school. "Rock-and-roll?" he asked incredulously. "I can answer that question in one word: none!"

Specialization that excludes everything but the issue at hand prevails on all the highest levels of training. In the graduate departments at Columbia there are no Marty Laskins around. I spoke to Tom Baker, a twenty-five-year-old musicology student from Milwaukee who is writing his thesis on proportional notation of the sixteenth century:

"I've never had anything to do with rock. I know nothing at all about it. If I had to teach a humanities course and the students wanted me to do something with rock, I'd be completely helpless and have to turn the class over to one of them."

Baker joins Fischer and Laskin in his enthusiasm for early music. "The young people respond to it. It doesn't require years of specialized training or a particularly beautiful voice. It's music you can take easily—without wondering what on earth is going on, as you wonder with Wagner and Beethoven."

"To keep body and soul together," Baker may go on for a library degree. He thinks universities are turning out far more musicologists than they should.

They are probably turning out too many composers as well. Bruce Taub of the Bronx—a basoonist and a composer with a master's degree—is working for his Doctor of Musical Arts degree at Columbia, a graduate of Music and Art, he never played any rock-and-roll. "I know rock musicians talk about all the discoveries they've made. But Stravinsky and Varèse made them first!" Taub's attitude is upbeat: "I'm a hard-working student, and I was lucky. I got into music when I was young. Now I teach a humanities course that meets three times a week. Apart from receiving my tuition free, I earn $2,000 a year. I'd love to find my life's work right here, but everyone at Columbia wants that too."

"The universe is divided into two worlds: the classical/contemporary world and the rock/underworld world." So says Manhattanite Zizi Mueller, a first-rate flutist and Brearley graduate. Although she rejects rock-and-roll because it is "too repetitive," she identifies with the rock culture and feels hostile to the more circumscribed approach to her art. Zizi began to play flute at ten and has studied flute seriously ever since then. Last June, after a year and a half at the Manhattan School, she quit. Now she earns $75 a week as music director of La Mama, a "total theater" group in Greenwich Village, and says that she's in the position of hiring Juilliard graduates. Most of them, she claims, work as clerks somewhere.

"I know that I need much more knowledge," Zizi told me in early November, "but I can't compromise my whole existence. At school they negated everything in which I believe. They have thirty flutists and one orchestra. You have to pull strings just to play your instrument. The ear training courses are farcical. You sit in huge classes waiting for your turn to sing a tune. Everyone just sits there and laughs; it's all very superficial."

"Even if you could bear the training, it's pointless because there are so few jobs ahead. Auditions are rigged and based on connections. An audition is like a cattle call, and people go through all of this to be tenth violinist in an orchestra that plays for people who don't listen at all, who just snore or talk all the way through."

"Of course there are plenty of kids who stay with it. They came into music in an antique way—thoroughly computerized. They are molded and all come out in the same shape. How many really thought of what they wanted to do? They come into this competitive jungle and automatically go through all of the paces. . . ."

The last I heard, Zizi had applied for re-entry into school. Musicians are driven; there's no doubt about that. If you could get out, of course, you would. That is the condition of art. It doesn't seem to be any different today than it has ever been.
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On Columbia Records and Tapes
This month's first three feature reviews deal with a subject that everyone is talking about nowadays: quadraphonic recordings. Supplies of these four-channel recordings are not easy to come by (even review copies of some items are scarce), though the total list of discs and tapes presently "available" is impressive in both length and variety for a recorded medium that has come into being so recently.

The first review deals with a portion of the SQ offerings from Columbia, Epic, and Ampex. Discs matrixed by the Columbia SQ process also have been announced by Vanguard, and EMI/Angel is expected to release some before long. The second review takes a sampling of discs using the competing, though similar, Electro-Voice and Sansui matrix systems. Relatively few recordings have been made available in either; and while there are other quadraphonic disc systems, their products are not commercially available. The final review takes a small sampling of the long Q-8 (for quadrophonic 8-track) cartridge list—almost all of them from RCA and available for some months now.

Some readers may still be unfamiliar with the terminology of the new medium. "Discrete" four-channel sound (that on the Q-8 cartridges or on open-reel tapes issued some time ago by Vanguard and Project 3) means that the quadraphonic effect is achieved by a recording technique in which all four channels maintain their independence throughout the process. "Matrixing" (or "encoding") is a technique by which four channels are combined into two so that they can be placed in the groove of a stereo record and played either as stereo or substantially in their original quadraphonic form via a special decoder.

The SQ discs—a remarkable debut

For a series of quadraphonic premieres this is an impressive collection—both musically and technically. The listening setup included a Sony SQ-1000 decoder driving a Marantz 2270 receiver in the front channels and a Galactron IC Mk 10 integrated amplifier for the back. In terms of pure sound the results are remarkable. But the credit belongs primarily to Columbia's A&R department for providing such attractive raw material to its engineers.

Subotnick's Touch is particularly important in this respect since it not only was recorded originally as four-channel sound but was written that way. It's also a composition to which all preconceptions of acoustic space are irrelevant. That is, there can be no complaint about the "naturalness" of the relationships between musical loci and listener; nor can there be complaints about the naturalness of the sound, which is entirely synthetic. Both are as they were devised by Subotnick.

Much electronic music strikes me as a series of more or less impressive sonic effects caught up in a vain search for some sort of musical cogency. Not so Touch. It has form, color, development, wit, and even manages to be quite moving. The best example of this last property is the slow section toward the middle of Side 1: a beautifully sustained piece of work. Though the conventional materials of music—melody and the rest—are almost entirely absent (save in a liltingly rhythmic passage toward the end) the effect is unremittingly musical, even by fairly conventional standards. That is, the score manages to convey its sense of an ineluctable purpose beyond the mere mastering of electronic sounds; it is responsive to its own inner life.

Once having heard it quadraphonically you won't want to revert to stereo. About two thirds of the way through occurs a passage in which wee tim'rous sounds scurry back and forth across the room in their purposeful but mysterious rounds. The space of the room is made so much a part of the music that the act of switching to stereo becomes one of wanton defacement.

Almost the reverse can be said of Bernstein's Also sprach Zarathustra. The grand façade of sound seems all too hollow when you move into it by switching from stereo to SQ. Not that the sound itself is hollow; on the contrary it takes on an extraordinary body and richness heard quadraphonically. It is the music that suffers. Unlike Ozawa's Stravinsky (reviewed below), with its delight in inner workings, Bernstein's Strauss is most imposing when viewed from a distance. This is particularly so because of a certain instability of instrumental placement, most noticeable in violin passages, in SQ. I hesi-
tate to stress this point, however, because the precise sound orientation depends to a certain degree on the listener's position in the room and presumably on the room itself. Perhaps instrumental placement would establish itself more firmly in another room or with different speakers.

Most of the time the SQ effect is largely one of opening up the sound. While this results in a want of integration in Also sprach, the openness can be used simply to impose a sense of space—as it is in the Barbra Streisand recording. As an album "Stoney End" falls somewhere between the thoroughly contemporary (and uncharacteristic) "Barbra Joan Streisand" and her earlier discs as stylist extraordinaire. In addition to Stoney End itself there are two other Laura Nyro numbers; but it is Barbra, sola, who dominates, backed by some pretty lush string arrangements that at times move dangerously close to Mantovani for such tunes. The Streisand magic conquers all, however, and seems even more imperious in four channels than in two.

Chase is a nine-man brass group that also profits from quadraphonics. Billed as a rock-jazz ensemble, it almost manages to suggest Gabrieli heard this way, but the eclectic elements in its style are well integrated and its music-making solid. The sense of space is both convincing and relevant to the music—as it is in the Streisand album. Both seem so natural in four channels that I can only suppose the quadraphonics to date right back to the original studio sessions.

There's some gimmickry on the Chase album, however. The canonic tape-echo effects get a little tiring, and the percussion is made to gallop around the room in the second cut (Livin' in Heat). But the group settles down on Side 2, and the five-cut Invitation to a River sequence with which it ends contains some impressive work.

So does Purlie of course—but that's almost ancient history. The recording seems to be a product of a simple remix from multitrack tapes intended for stereo. The voices remain largely at front-center, with the orchestra opened up—rather than spread out—by SQ. While the effect is pleasant, it contributes little toward creating a vivid impression of the stage presence. Cleavon Little and Melba Moore did that in stereo; in the face of their talents the SQ touchup is insignificant.

It's not so insignificant in another established musical best seller: "Switched-On Bach." Walter Carlos' amiable and ingenious tootlines are a natural for SQ. If you heard things in the stereo version that you never noticed in the Bach originals, you'll hear more in four channels. In the F major two-part invention the sound "sources" are made to dance about the room; apart from that there is little SQ gimmickry. The arrangements themselves may be another matter, but enough has been said about them already.

Chase. Epic EO 30472. $6.98.
Purlie. Cleavon Little, Melba Moore, and the original Broadway cast. Ampex Q 40101, $7.98.
Barbra Streisand: Stoney End. Barbra Streisand, vocals, with supporting instrumentalists and singers. Columbia CO 30378, $6.98.
Other encoded discs—more big guns needed

Of the five matrixing systems that have received the most publicity—Dynaco, Scheiber, Electro-Voice, Sansui, and CBS SQ—the first four share a good many basics and are often considered to be largely interchangeable. Of these, only the E-V and Sansui have been used for commercially available discs. I used two listening setups. The first was built around the EVX-4 decoder, playing through a Fisher 701 four-channel receiver and four identical speakers. It was set up with a Dyna Quadaptor in the front-channel outputs so that the effect with the Quadaptor could be compared with that using the EVX-4. The second, with a Sansui SQ-1 decoder, had two dissimilar pairs of speakers at front and back, fed by several different combinations of receivers and power amplifiers.

In playing the E-V encoded discs through the Sansui decoder (or through Dynaquad circuitry, for that matter) I've never been aware of any particular losses in four-channel effect; on the few occasions when I've played Sansui discs through the E-V decoder the experience also was comparable. This test is far from rigorous, however—particularly since most of the matrixed discs in either system rely on ersatz studio acoustics and arbitrary four-channel placements.

The four recordings chosen here represent only a fraction of the list that has been encoded using E-V or Sansui equipment. While the relative interchangeability of the two techniques is attractive, the release lists are disappointing when compared to those for SQ or Q-8. The musical big guns simply are not there, with two exceptions.

The first is Beverly Sills's "Welcome to Vienna," not a very flattering frame for her talents. The acoustic is excessively echoey. In stereo it sounds muddy and overblown; heard quadrephonically it resembles a bowling alley—particularly in the orchestra-only Thunder and Lightning Polka.

Sills sings Voices of Spring and individual numbers of stage works by Lehár, Korngold, Heubeuger, and Siczynski. Most of the music is little known and will be sought out eagerly by fans of Viennese music as well as those of Miss Sills. But I'm afraid the recording adds little luster to either reputation and nothing of note to the cause of quadrphonics.

Doc Severinsen is the other exception. His virtuoso trumpet is by now a fixture of the pops scene and it is well represented in "Fever!" The arrangements, though glib, are effective, and the quadrphonics make the sound truly room-filling—as it should be. It's very much a studio job; there's no attempt to catch the ambience of a Severinsen concert. That too is as it should be, I think. The moody numbers (On a Clear Day, for example) are the sort of music you want to be alone with over your second highball. But most are more hard-driving. The band makes heavy use of percussion as a foil to the Severinsen solos, all captured in good, clean sound.

The sound also is big and clean (except for the inner cuts on each side) on the World's Greatest Jazzband al-
Undermines the Discrete System's Advantages

This sampling from the initial Q-8 release list of RCA and Project 3 hardly gives matrixed discs the competition that they deserve. The Q-8 listening was done in two quite dissimilar rooms, using two different Toyo players (the CH-702 and CRH-730) driving three different bookshelf-speaker models, all told. But the four-channel processing is, generally speaking, rather inept; and the vaunted advantages of discrete—as opposed to matrixed—quadraphonic sound are all but thrown away in either room.

The titles themselves may hold the clue to the problem. Many of them have been with us for some time in standard stereo guise, and RCA evidently has paid more attention to producing a Q-8 list that is attractive from the a & r point of view than it has to turning out cogent quadraphonic sound. The most obviously slapdash of reprocessings is that in the Bohème excerpts, which are seriously distorted on Side 2 in both of the copies I've heard. And here—as in the Fiddler excerpts—the four channel effects seem arbitrary and unconvincing. More's the pity, since stage works can benefit demonstrably from the intelligent use of four channels.

In Fiddler, for example, there are five quite distinct sound sources: front-and-center, and at each of the four speakers. When he is on stage alone, Zero Mostel is given the center-stage spotlight, while the orchestra is divided up among the four speakers. In numbers like Matchmaker, however, voices are placed at one or both of the back speakers, suggesting that the action is being carried into the side aisles of the theater.

Now I hold no brief against carrying the action into the aisles. Hair (also available in Q-8) made brilliant use of the technique; the mezzins in the balcony at the beginning of Kismet produced a galvanizing effect that only quadraphonics could recapture. It is the arbitrariness of RCA's placements that displeases. They're without real musical or dramatic point. Admirers of Mostel's sensitive and touching Fiddler or the less sensitive (and more distorted) Moffo/Tucker Bohème may not mind interpolated sonic effects, but that's all they are.

The Harry Belafonte concert in Carnegie Hall makes even less valid use of quadraphonic acoustics. This is a live event in which four-channel sound might reasonably be expected to convey the sensation of actual participation. In one sing-along number Belafonte performs prodigies of showmanship, drawing the audience into the act, and playing upon it as on an instrument—even tricking it. If only the sound could convince you that you were there, being tricked with everyone else! But so arbitrary is RCA's quadraphonic mixdown that the audience sounds are scattered in all four channels beyond the music. The effect is not that of sitting in Carnegie Hall, but of being on stage with Belafonte in the center of Madison Square Garden. His close-miked tonsils dominate the foreground. In the surrounding circle are the band and the chorus. The audience lies in the murk beyond; there is no hope of identifying with it.

Fiedler's reading of the Shchedrin Carmen Ballet somehow manages to smooth over the quirky angularity of the score so that it comes out a bit overstuffed and characterless—like a Grand Rapids copy of Danish modern. Had his approach been more stylish, the laxity of RCA's mixdown would have been a shame; as it is the recording is fun but essentially undistinguished, both musically and sonically.

Subjectively the most successful recording in the group is the Ozawa Stravinsky cartridge, but I don't really understand why. An assumed truism of quadraphonics is that the listener will find it unnatural to be tricked it. If only the sound could convince you that you were there, being tricked with everyone else! But so arbitrary is RCA's quadraphonic mixdown that the audience sounds are scattered in all four channels beyond the music. The effect is not that of sitting in Carnegie Hall, but of being on stage with Belafonte in the center of Madison Square Garden. His close-miked tonsils dominate the foreground. In the surrounding circle are the band and the chorus. The audience lies in the murk beyond; there is no hope of identifying with it.

The effect is easiest to explain in terms of Petrushka. To be in the middle of the vivid fair scene—and Ozawa is
nothing if not vivid—is to be part of it. The crowds, the banners, the hawkers—all are there at once. If they happen to be trumpets and flutes and violins rather than their visual counterparts, well, so be it. But this sense of being surrounded by orchestral color and movement works equally well throughout both scores. Or almost so; only the pathos of the Petrushka finale seems a bit dulled by its immediacy.

Ozawa's performances contribute materially to both the success and the weakness of the experience. His readings are impassive—even headlong at times—but without any real nobility. He is rather like the child who pulls apart a toy to see what it's made of. Some of his discoveries make for thrilling listening, and the quadraphonic process helps you to perceive the guts he lays bare. Were he more inclined to respectful admiration, the process might seem like vivisection and the normal separation between podium and easy chair more desirable.

“Concert-hall realism” certainly has nothing to do with RCA's treatment of the recording. Not only are the instruments everywhere, they are so closely miked that one is unaware of the hall as such. Surely this will change as more experience is gained in four-channel recording. At times the placement of some instruments—flutes and brasses particularly—seems a little unstable, something one would expect of matrixed, rather than discrete, quadraphonics. The sound is rich and attractive—easily the best in the Q-8 group—but not quite as crisp as I would have hoped. Again the over-all impression suggests that mixdown from multichannel tapes originally intended for stereo, rather than quadraphonic, release may be the cause of some shortcomings. Perhaps when recordings are made expressly for the new medium RCA may adopt quite different techniques.

That said, what can be added in discussing Enoch Light's essay in quadraphonics? Several professionals in the quadraphonic-sound business have told me that he is the unchallenged master in the field when it comes to mating musical intention with technical means. Yet the product is so laden with musical and sonic gimmickry that it's hard to take seriously either way. It's slick and banal in the rest of the album are turned into a carefree confection.


definite rhythm is unbroken; the interplay

delicate rhythmic thrust is unbroken; the interplay of

HARRY BELAFONTE: “Belafonte at Carnegie Hall.” (Highlights from the live concert.) Harry Belafonte, vocals; chorus and orchestra, Robert Corman, cond. RCA Victor OQ8 5002, $7.95.


FIDDLER ON THE ROOF. Zero Mostel and the original Broadway cast. RCA Victor OQ8 1005, $7.95.


PUCCINI: La Bohème (highlights). Anna Moffo (s), Mimi; Mary Costa (s), Musetta; Richard Tucker (t), Rodolfo; Robert Merrill (b), Marcello; etc.; Rome Opera House Orchestra and Chorus, Erich Leinsdorf, cond. RCA Red Seal ROB 1137, $7.95.

STRAVINSKY: Suite from The Firebird; Petrushka. Boston Symphony Orchestra, Seiji Ozawa, cond. RCA Red Seal ROB 1164, $7.95.
In that "golden age" of musical comedy—broadly centered in the Twenties and Thirties but more specifically beginning with Jerome Kern's "Princess Theater Shows" scores in 1915 and ending with the arrival of Oklahoma! in 1943—the great names were Kern, George Gershwin, Rodgers and Hart, and Cole Porter. Of that top group, it was generally held that Gershwin, with his jazzy inflections and his recognition of black musical influences, was the most vital representative of the new musical theater during those years.

Now that the theater has passed through another phase of almost equal length—the neo-operetta style brought on by Oklahoma!—those Gershwin-dominated years have fallen into perspective, and considering what has happened since then, the era still remains, musically, a golden age. But there has been a slight and subtle shift in values. While Gershwin retains his title as the most representative theater composer of the period, his theater songs, popular as they are even today, have taken on somewhat of a period quality; it is the songs of Cole Porter, although dated in their lyrics, that have grown more and more contemporary over the years. In effect, popular taste is just catching up with Porter, who in his day managed to be both successful and exotic. And it is his influence that is most strongly felt in Galt MacDermot's score for Two Gentlemen of Verona.

The exotic element in Porter's music was his fondness for the rhythms he picked up all around the world—in the Caribbean, in the Pacific, in Asia, and possibly by second or third hand from Africa. These are the qualities in Porter's music that have kept it contemporary as American popular music discovered variants of those rhythmic lines that Porter was using thirty and forty years ago in Begin the Beguine, Night and Day, and Just One of Those Things. The fact that there are echoes or traces of Porter (or, more exactly, of Porter's sources) all through MacDermot's score is a fitting complement to the coincidence that Porter's greatest score was also written for an adaptation of a play by Shakespeare, The Taming of the Shrew (the musical that signified the ultimate end of the golden age—it was 1948 and Kern, Gershwin, and Hart were dead while Rodgers had shifted directions in his collaborations with Oscar Hammerstein II).

Porter, it turns out, has served as a bridge between the golden age and the new musical theater of MacDermot's Two Gentlemen, the first evidence that the musical theater is really capable of a score that reflects contemporary popular music. All during the latter Sixties, the focus of supposedly contemporary scores was on "rock," a word that was tossed around loosely and extravagantly and largely meaninglessly. MacDermot's songs for Hair are rock—if they are played in a rock style; but like the Beatles' songs, they can just as well be "easy listening" or jazz if you choose to approach them in that manner.

The music for Two Gentlemen of Verona is not based on any current catchwords. It has its own inescapable identity which cannot be lost no matter how it is approached. It is based on two very vital streams of what can only be described as legitimate folk music—an Afro-Latin strain and a black strain. These happen to be the two most influential lines in contemporary popular music. But MacDermot's rationale for using them was not just to mine contemporary pop—his direction was established by the decision of John Guare and Mel Shapiro, who made the adaptation, to make one pair of Shakespeare's lovers Puerto Rican and the other black. Given this concept, the musical style follows logically.
But there is a lot more than logic in this recorded version of the New York Shakespeare Festival production which originated in Central Park and then moved to the St. James Theater. There is a constant sense of life, of joy, of passion in this music whether it is calypso, soul, samba, or gospel. And there are singers who personify the spirit of the music. Several are splendid individualists—Raul Julia, a man with a marvelous voice which ranges from authoritative declamation to sly irony; Frank O'Brien rising to devastating heights of falsetto vacuity; John Bottoms with a brilliant gift for finding the flattest side of any note. They are balanced by the straightforward vocal integrity of Clifton Davis and Jonelle Allen (who is not quite as vivid on the recording as she is when seen onstage). The only letdown is Diana Davila, one of the four principals, who has a mannered style that calls attention to the manner rather than to the song. But otherwise the company projects the spirit and the sensuousness of MacDermot's music brilliantly.

And they are supported and possibly even led toward insights of the music by an orchestra that is very un-theatrical (in the normal pit-band sense) and also very right for this situation—a situation one can understand when one discovers that it includes such musicians as Thad Jones, Ray Copeland, Everett Barksdale, and Pretty Purdie, jazz and studio men who are completely at home in the contemporary mixture Galt MacDermot has cooked up for them.

Two Gentlemen of Verona. Original Broadway cast recording. Music by Galt MacDermot; lyrics by John Guare; adapted from Shakespeare by John Guare and Mel Shapiro; Jonelle Allen, Diana Davila, Clifton Davis, and Raul Julia, vocals; Harold Wheeler, cond. ABC BCSY 1001, $13.96 (two discs).

Discoveries for Haydn Seekers

Maerzendorfer's versions of all 106 symphonies from Musical Heritage

The first conductor to record all the 106 performable symphonies of Joseph Haydn has automatically made himself a place in the history of the phonograph, even if a good deal of the time he is facing severe competition from discs by other musicians. The man is Ernst Maerzendorfer, and his edition fills forty-nine records from the Musical Heritage Society. Fortunately, the customer is free to choose among these issues as he sees fit, an attractive proposition for both the beginning Haydn collector (who may want the lot) and the seasoned record buyer who already has a fair representation of the composer on his shelves.

The idea of doing Haydn complete was a natural outgrowth of postwar Haydn scholarship. The old Haydn Society got things going, but was unable to bring its projects to completion. Fresh stimulus came in 1955 with the publication of H. C. Robbins Landon's study of the symphonies, which provided a secure musicological foundation for such an enterprise. "Papa Haydn," the father of the symphony, whom we had heard about in music appreciation classes, started to be replaced by a man of passion and genius. But it was difficult to see him as the father of the symphony when the major orchestras represented him by about two-dozen works, and the claims of 134 fake Haydn symphonies (systematically unmasked by Robbins Landon) added more confusion.

With the arrival of stereo there was another complete Haydn project, that of Max Goberman for the Library of Recorded Masterpieces. Like Maerzendorfer, he worked in Vienna, drawing his personnel from the pool of musicians that make up the State Opera orchestra.

With Robbins Landon assisting with notes and texts, Goberman started at the beginning and had taped forty-five of the 106 before his death in December 1962. Most of these performances were subsequently released on LRM. Rights to the series were later acquired by Columbia which has, to date, issued twenty-one symphonies on Odyssey. Ironically, in the tenth year following Goberman's death, four of his performances (symphonies A, 27, 34, and 37) still await initial release.

The Dorati/Philharmonia Hungarica Haydn edition on Stereo Treasury was first reviewed in these pages a year ago [April 1971]. Again Robbins Landon is annotator of the series. Three volumes are presently available in the U.S., covering the symphonies 49-72, and the project is scheduled for completion in 1973 with a total of forty-six discs divided among nine albums. The performances to date have been excellent, but the format is inconvenient for those who may not want to buy these symphonies in such large groups.

In addition the recording industry has over the years provided us with many Haydn issues of quality from musicians who for one or another reason performed only a small portion of this literature for discs. In this category the recordings of the Esterhazy Orchestra under David Blum for Vanguard, Raymond Leppard and the English Chamber Orchestra for Philips, and George Szell and the Cleveland Orchestra for Epic and (later) Columbia are especially praiseworthy.

The "Papa Haydn" myth has long been exploded, but the composer's role in the transition of the symphony from its ancestral forms (the operatic overture and diver-
of the late Haydn period, there is a break in the catalogue. No. 89 (OR H 240) is not a major work, but Maerzendorfer 
couples it with a good account of the popular No. 88, and it adds up to an interesting disc.

The most attractive discoveries however are to be made in an earlier period. There is presently a break in the catalogue at No. 23, although both this work and No. 24 exist in Goberman recordings and would be the logical ninth volume of his Odyssey series. I'd start with No. 25, with its opening bars so filled with sweet sadness, and go on to the ebullient No. 27. Both are on OR H 210.

You can have all kinds of fun and games with the early trumpet-and-drums scores and the kindred Hornsignal Symphony (No. 31). That work is done for fair on OR H 212—a really wild performance filled with Waldhorn humor. No. 32 is a trumpet-and-drums symphony stuffed with bright and lively things, and No. 33 is a gallant work with many attractive features. Together they make OR H 213 a nice buy.

No. 36 can be considered as Watteau set to music. OR H 215 couples it with No. 38, one of those scores that contain everything people seem to find appealing in the baroque in terms of thoroughly red-blooded and imaginative composition. No. 37 is another striking example of the trumpet-and-drum genre (OR H 211). No. 40 is radically misplaced in numerical order. It is a youthful score filled with zestful high spirits, and OR H 216 couples it with the harmonically adventurous No. 39. No. 41 (OR H 212) and No. 42 (OR H 217) complete the repertory Maerzendorfer currently has to himself. No. 42 is a weak work, but No. 41 is a truly festive score and generates a good deal of excitement and gaiety.

In the areas in which there is direct competition between Maerzendorfer and other conductors one must take into consideration the interpretive approaches involved. Maerzendorfer follows the Robbins Landon texts, but in his own fashion. Apparently he feels that, on the whole, he should not incorporate a harpsichord or other continuo instrument unless a part for it is found in Haydn's score. But it is the very nature of the early symphonies (and the period in which they were composed) that a continuo would be implied by the musical textures and the layout of the instrumental lines rather than written by the composer. Through the symphonies numbered in the forties a keyboard continuo is often desirable, especially in the earliest works, and although Maerzendorfer occasionally makes a good case for its possible omission, it is not a musicological exaggeration to add occasional bass reinforcement from a bassoon or a keyboard instrument to support rhythm and harmony.

Interesting contrasts and comparisons are therefore possible in the symphonies Nos. 1–22 where Goberman's edition on Odyssey contains elaborate continuo parts. A good test case is the symphonies Nos. 6, 7, and 8 where Maerzendorfer offers some fine, sensitive playing; but turning to the Goberman one finds an even better orchestra, finer solo playing, and considerably more interesting effects because of the character of the keyboard part. The fact that the continuo realization is left to the individual player means that it will probably be different in every performance that employs it. In the Goberman albums the continuo often provides accents or even a counterpoint of its own, and in some cases even complete parts for the keyboard. Maerzendorfer occasionally makes a good case for its possible omission, it is not a musicological exaggeration to add occasional bass reinforcement from a bassoon or a keyboard instrument to support rhythm and harmony.

The group of symphonies from the early twenties to the early forties has only sketchy representation in the catalogue. It certainly makes good sense to acquire the ones which Maerzendorfer has to himself, but in fact his edition is thoroughly competitive with such alternatives as there are.

When we arrive at No. 49 we enter the repertory currently represented in the Dorati volumes, and from here to No. 72 Maerzendorfer is up against a conductor of reputation who offers a finer orchestra, superior recorded sound, elegant performances with sound musicological foundations. For example, No. 49 (La Passione) is one of the greatest of the early Haydn symphonies, and the Maerzendorfer version makes that clear. But how much more effective it is in the Dorati version! And how much of that effect is due to the musicianship of Dorati's continuo player. Since both records are in the same price bracket, the choice seems easy to make.
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The advantage of the Maerzendorfer editions in this area, of course, is that they can be purchased as individual discs, so that those who want to do some exploring are free to do so within minimal financial outlay. A nice place to start with is No. 52 in the unusual Haydn key of C minor in a fine performance (with the attractive No. 53) on OR H 222. Another nice coupling is that of Nos. 60 and 61 on OR H 226. The sequence from Nos. 68-71 (OR H 230/1) also contains important material. One of the most popular Haydn works of this period, the Hunt Symphony (No. 73), gets a strong performance on OR H 232 with an equally effective statement of the admirable No. 72.

The middle-aged Haydn was greatly influenced by his younger colleague Mozart, and the symphonies Nos. 74-78 all show this to some degree. Long neglected both in concert and on records, they make up three discs (OR H 233/5) in this edition. Maerzendorfer's performances are extremely sympathetic, making this one of the high points of his series.

We now come to the most frequently heard Haydn symphonies. The six scores written for Parisian audiences (Nos. 82-87) are intended for a larger orchestra than Maerzendorfer seems to have employed, and comparisons with standard editions of the past, such as Ansermet's, are generally disadvantageous to the Maerzendorfer discs. (However, some of his tempos are preferable.) On the other hand, in the twelve "London" symphonies, Nos. 93-104, and the popular transitional works that preface them in the chronology, Maerzendorfer has succeeded in turning out good low-priced recordings that many listeners will surely find extremely satisfying. Again, of course, he faces serious competition. In No. 92 and the first six of the "London" scores he is up against Szell and the Cleveland Orchestra, and they produce refinements in performance and interpretation which he cannot match. It may seem odd, with 106 Haydn symphonies to choose from, to begin with the Surprise or the Militia, but once you have heard what Maerzendorfer can do with the familiar Haydn you may be more willing to follow him into terra incognita. Even for the most blasé concertgoer, the Haydn symphonies still can promise miraculous discoveries.


**Selected comparisons:**
- Dorati (Nos. 49-72)
- Goberman (Nos. 1-22)
- Szell (Nos. 93-98)
- St. Treaus, 15127-38
- Odys 32.16.0006, etc.
- Col. MS 7008 etc.

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**Amram: "No More Walls": Shakespearean Concerto, Autobiography for Strings; King Lear Variations; My Daisy; Brazilian Memories; Tompkins Square Park Consciousness Expander. Various instrumentalists and orchestra. David Amram, cond. RCA Red Seal VCS 7089, $6.98 (two discs).**

The idea behind the title is, obviously, that David Amram has broken down all the traditional barriers. He is both composer and performer; he writes jazz and symphonic music; and he is adept at such varied folk and popular styles as those of the American West, Brazil, the West Indies, and the Near East. His symphonic music, as exemplified here by his Shakespearean Concerto and his King Lear Variations, is scarcely more than skillful movie stuff, however, and his composed short pieces, like Autobiography for Strings and Pull My Daisy, are simply trash. Amram comes into his own in improvisational pieces, like the Waltz from After the Fall, which is mostly jazz and very exciting jazz indeed. His tribute to the Caribbean, entitled Wind from the Indies, is also a beauty, but the masterpiece of the set is its grand finale, the Tompkins Square Park Consciousness Expander, which is in the Near-Eastern tradition. It is a fast-driving virtuoso piece for a long series of improvising soloists, each more daring than the last, while the drums eg the whole thing on with a terrific clip.

Amram is the foremost virtuoso here: he plays piano, French horn, three different kinds of flutes, a kazoo, and various oriental instruments as well as producing sound by slapping his inflated cheeks and hitting himself on the top of the head. You don't know what a horn can do until you have heard Amram noodling on it in the manner of jazz saxophonists. His saxophonists, Jerry Dzugan and Pepper Adams, are magnificent too; in fact, the entire performance, as performance, is superb, and the recording is equally fine. A.F.
powering as Anthony Newman's version nor that of Kirkpatrick. For many listeners it may well strike just the right balance. R.P.M.


This disc is perhaps the first casualty of Schwan's recent deplorable decision to transfer all monophonic discs to limbo (or rather to their supplementary catalogue, which most record dealers don't even seem to know exists). Now that the record-buying public seems to have stopped discriminating against mono-only records, RCA has nevertheless vandalized this still serviceable, best-selling 1951 recording to retain a listing where it counts. Admittedly, some pseudo-stereo "enhancements" are less objectionable than others, but when I started getting a bloated, muffled, unclear sound (from this record) I went to my shelf and reached for the ungimicked original on RCA Victor LM 1718. No, there wasn't any fluff on my stylus; nor was my amplifier losing high frequencies as I had feared. The contrast between the two discs was remarkable—the older pressing was so much more vibrant and direct. Superficial though this Horowitz/Reiner collaboration may be, it has a refreshing brilliance and a sense of forward direction. It may not tell you any dark secrets about the music, but it most assuredly does tell the truth! It's a shame that I can't recommend it in this reissue: $2.98 is no bargain when a disc verges on the unlistenable. H.G.

BEETHOVEN: Fidelio.

Leoline
Marzeline
Florestan
Jaquino
Don Pizarro
Don Fernando
Pocoma
Chorus of the German Opera, Berlin; Berlin Philharmonic Orchestra, Herbert von Karajan. cond. Angel SCL 3773, $17.94 (three discs).

Selected comparisons:
Toscanini
Furtwangler
Klemperer
RCA LM 6025
Seraphim IC 6022
Angel SCL 3625

Some day, a perceptive and well-informed biographer may probe deeply enough to give us a convincing explanation of the style change that Herbert von Karajan's conducting underwent during the 1960s. Without any question, his recent work—as exemplified by the Meistersinger and Boris Godunov reviewed in past months, and by the present Fidelio—is markedly different from the Philharmonia and Scala sets of the 1950s, such as the Cosi, Falstaff, and Trovatore. To be sure, he always was strong on euphony; the early Vienna Mozart sets almost shrouded under an affettuoso style of singing, but this tendency seemed quite under control in Cosi, and the Verdi recordings of this period lack nothing in vigor and propulsion, although signs of a "stately" approach begin to be evident in the Vienna Ada.

However, with the Ring cycle of the later '60s one became aware of a new direction, a smoothing-out of the conductor's conception of orchestral sound, with markedly less variety of attack; the search for continuity of sonic surface was also manifest in a minimization of phrase articulations and even of conventional accenting. Unlike the "streamlining" of Toscanini's later years, which entailed an intensification of forward pressure to guarantee a sense of inevitability to the music's progress, Karajan's method seems to entail the removal of all possible obstacles to its flow. Generalizations are dangerous, with reason, to be regarded suspiciously, and I embark on the present ones at this point after hearing the new Fidelio only because it constitutes a unique recorded meeting-point for the most influential Beethoven conductors of the prewar years (Toscanini and Furtwangler) and their postwar counterparts (Klemperer and Karajan). As a stab at defining these different approaches, let me offer the following (imperfect) analogy: If Toscanini relied on motor energy to overcome the inequalities of the road, however varied its surface might be, then Karajan insure his arrival at the destination by traveling only the smoothest Autobahn. By contrast, the other two conductors are walkers (I am referring to type of motion, not tempo): Klemperer in long even strides, Furtwangler at a more varied pace, governed by a sense (at least partly intuitive, although based on experience) of how to make the events of the voyage more coherent.

With even greater trepidation, let me carry the analogy one step further, to consider the listener as a traveling companion. With the "walkers," the emphasis is very much on the events of the voyage (i.e., the structure of the music), as articulated by the steps of the guide, firmly (Klemperer) or more freely (Furtwangler). With the "riders," one concentrates on the experience of traveling itself (i.e., the flow of the music), having less regard for the scenery encountered along the way.

Now all of this by no means implies an open-and-shut case against any of these approaches, nor would I want to suggest that any of the four conductors relies exclusively on any one of them—there are Furtwangler performances (mostly in the concert hall or opera house rather than in the studio) that make great use of the sheer physical stimulus resulting from headlong forward motion (although I cannot think of any by Klemperer that fall in this category). Certainly there is music in which "getting there" is more than half the fun—e.g., the Rossini overtures that were a Toscanini spécialité de la maison, where structure is obviously subordinate to timing and motion. However, I would submit that Beethoven was basically very interested in musical structure, and a performance that does not articulate the phrases, periods, and larger motions of his music misses some absolutely essential points. Fidelio is of course a theatrical work, and this circumstance suggests that there is also room for the kind of theatrical excitement that Toscanini could generate. The trouble with Karajan's approach is that it rides smoothly on the "structural" aspect (there are, indeed, times when even the simplest of accents, that which indicates the downbeat of the measure, is consistently suppressed) and yet it never brings forth much excitement either, even in that sure-fire number, the rescue quartet in Act II.

In other words, I feel that the kind of continuity achieved in this recording—"horizontal euphony," one is tempted to call it—is altogether irrelevant, even specious; everything moves with the smoothness of a ball bearing (occasional vocal friction aside), and you know that nothing will impede its inevitable arrival at the final chord—but you also realize quickly that nothing of any interest is going to happen along the way. Every note is played, just as marked in the score, the players and singers are almost always in excellent ensemble, and the tempos are always reasonable interpretations of Beethoven's markings. (Tempo in the absolute sense has very little to do with the kind of thing I am talking about, as I was recently reminded when my Boston colleague Michael Steinberg reported that the timings of the two Karajan Meistersinger recordings—1951 and 1970—differ by only a few seconds! Yet the difference is as between night and day.)

Of course Karajan is a marvelous orchestral technician—he has to be to even consider playing music this way. The same was true for Toscanini, and in both cases the interesting questions might be raised: Did they perhaps arrive at their respective performance styles as a consequence of their technical abilities, their fascination with kinds of continuity that could only be achieved with supremely virtuosic ensembles? It should also be observed, however, that men such as Furtwangler and Klemperer were also completely in command of orchestral technique—but they often found that other things were more important, Swiss-watch perfection was not essential to the points they wished to make. Some of Furtwangler's most profound performances (e.g., the Brahms Third once issued by Electrola) are fairly hairy from the ensemble point of view, but still enormously revelatory and exciting.

"Very well," you may say, "Hamilton doesn't like traveling on Autobahns (he doesn't)—but what about the singers?" Fair enough—although I warn you right off that in this kind of context the singers don't have much chance to project with the freedom and individuality that their counterparts in nearly every other recording enjoy (the exception, as might be supposed, is the Toscanini version).
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Magda Olivero, Mario del Monaco, Tiço Gobbi and other soloists—The Monte Carlo Opera Orchestra—Lamberto Gardelli
OS-26213

There are all sorts of soto and mezza voice effects that impede genuine vocal communication, and nobody is permitted to make waves that might interrupt the passively metronomic proceedings. On the other hand, some of them can't help accenting words and notes, whatever conviction emanates at various points is due to them.

Miss Dernesch is certainly one of the involved ones: hers is fundamentally a warm and sympathetic sound, and she helps to put some "oomph" into passages like the first-act trio (in fact, the first section of this, where Beethoven has written in a lot of sforzandos, almost sounds like real music—but the faster closing section, full of those dull, unaccented Berlin staccatos, sounds pretty mindless). Unfortunately, she tends to shade the lower side of the note a good deal of the time, her top Bs sound distinctly perilous, and the octave leaps in the last part of the big aria show up serious inequalities in the voice. An instructive passage is the end of the "O Gott, welche ein Augenblick" ensemble, where Leonore and Marzelline alternate in the same register; the timbres are not so different, but you can tell them apart by the way they tune their notes. Donath is a pleasant Marzelline, but a subdued one, sounding a little tired at the top of her range.

Jon Vickers repeats, in most essentials, the strong Florestan he sang for Klemperer, although sounding marginally less comfortable in the duet with Leonore; by all odds, this is the most committed and convincing performance in this recording. Kelemen is a rather small-scale Pizarro, lacking the kind of vocal artillery that Schoeffler commanded (in the old Böhm version, now on Arista) or even the more conventional nastiness-cum-volume that Berry provided for Klemperer; it's hard to be forceful when you sound strained. Although Ridderbusch does not lack power, he offers a most subdued Rocco, smooth and characterless until the final scene, when he manages a nice pathetic accent in presenting the rescued couple to the Governor (adequately voiced here—but this part really calls for a voice of the Ridderbusch caliber). Jaquino is a thankless role at best, and young Laubenthal is at least adequate.

Some technical details: The usual abridged dialogue is included, spoken fairly expressively in that confidential radio-play style so beloved of German producers. Leonore No. 3 is, wisely, not included. The recorded sound is of EMI's echoey variety, with the equalization of the Angel pressing tipped annoyingly further towards the bass register than was the case in the German Electrolyca version. There are some anomalies of balance, especially in the first finale, where Pizarro is made to dominate the closing ensemble to an absurd degree; it's obvious that Kelemen isn't singing loud enough to really do that, but Rocco's responses to his lines are quite inaudible (even though we know that Ridderbusch could wipe him out with a good deep breath), and the ladies seem to be in the next courtyard. I haven't seen the American packaging, but the German edition had a good new English translation by William Mann, which I presume will be reprinted for local consumption.

Because it is one of the purest applications to date of the "new Karajan style" and because Fidelio has been recorded by so many first-rank conductors, this recording makes an interesting item for comparisons, if you want to study in detail some of the things that con-
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The Playing Is Sensational

by Harris Goldsmith

The Polonaise-Fantaisie comes from the Carnegie Hall concert of April 17, 1966, and was—along with the Scriabin Tenth Sonata—by far the high point of a rather uneven recital. (It was, if you recall, Horowitz’s second live appearance after his twelve-year retirement, and he had by no means recaptured his full force in front of an audience.) On the whole, this performance is more expansive and relaxed than the one from an earlier Horowitz concert which used to be available on an RCA mono disc. Horowitz, to quote from the liner notes, sees this late work as “much more a fantasy than a polonaise... fantastic music in the grand manner.” This is how he plays it. Some parts are very moody, with the typical Horowitz atto di nuovo vivente. The Polonaise also crackles with electricity. Both pieces demonstrate a minimum of pedagogical. The tone—clear, white, and bloodless—clear, white, and bloodless—clear, white, and bloodless. The final page is taken at a more di nuovo vivente pace than before. I feel that the opening-suggests that the soft pedal was never used. The Adagio goes well too, the restatement of the first-movement theme and transition to the finale gauged with interpretive acuity. A good deal of bite, too, is left. Horowitz’s Polonaise—Fantaisie, Op. 18, the fortissimo passage at measure 268. I prefer the Scherzo on the older disc—it had more sardonic bite and edge, particularly in the thematic scale leading back to the modified da capo. The slow movement, however, sings much more convincingly here, while the fugal finale has altogether greater fluidity. The whole is a sort of sentimental paean to the old days, as opposed to the real substance and velvet of chamber music. Horowitz’s instrumental branch is more suitable for this music than the older one. This may not be the warmest or grandest version, but it is the one most likely to get the best out of the music. Horowitz’s performance on its own terms. Horowitz’s Polonaise-Fantaisie, Op. 18, has never been outdone in this genre. The Playing Is Sensational
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symphony offers still competition to an earlier Bernstein version that had impressed me as the best recorded performance available. Interpreatively the difference between Bernstein and Martinon rests on sentiment and rhythm. Bernstein relishes the "juicy" melodies with which this symphony abounds, inflecting them with warm emphasis without interrupting the basic course of the music. Moreover, here and elsewhere Bernstein's rhythm produces a continuity and excitement that I do not hear from Martinon, even when, as in the first movement, his tempo is much faster. In the Scherzo Martinon breaks the flow of the music at several important transitions, where Bernstein makes these passages flow more smoothly.

Orchestrally, the O.R.T.F. holds its own in many respects with the New York Philharmonic. Its strings, especially as recorded here, have a mercurial lightness unequaled by the American orchestra and more appropriate to this music. But the extraordinary solo playing of oboist Harold Gomberg in many crucial passages, notably in the second movement, is definitely superior to his French counterpart; the latter plays with a somewhat drier tone and less expression than Gomberg. Martinon's inclusion of two other Biend and Gomberg's unforgettable playing, despite the latter's performance here one of the most incredible exhibitions of oboe playing I know, is less monumental in scope than the Schubert Variations (orchestrated but simultaneously conceived for two pianos) and the Handel or Paganini sets. Sometimes the style, or at least one or two of the harmonic turns, reminds me of Schubert's Grand Duo. Rachmaninoff's Op. 11 are his only known essays for piano duo. Brahms, it seems to me, was always particularly successful at building up a large-scaled edifice out of many smaller bricks. This four-hand work is less monumental in scope than the Handel Variations (orchestrated but simultaneously conceived for two pianos) and the Handel or Paganini sets. Sometimes the style, or at least one or two of the harmonic turns, reminds me of Schubert's Grand Duo. Rachmaninoff's Op. 11 are his only known essays for piano duo. (though of course he wrote two suites and the Symphonic Dances for two pianos). These are early pieces dating from 1894. Although Rachmaninoff had only graduated from the Moscow Conservatory two years previously, he had yet to find himself stylistically; nonetheless, these pieces, for all their gaucheries, are quite attractive.

The performances are capable enough. The Brahms's excellent 1861 set of variations on one of Schumann's last themes is among his lesser-known essays for piano duo. Brahms, seen to me, was always particularly successful at building up a large-scaled edifice out of many smaller bricks. This four-hand work is less monumental in scope than the Handel Variations (orchestrated but simultaneously conceived for two pianos) and the Handel or Paganini sets. Sometimes the style, or at least one or two of the harmonic turns, reminds me of Schubert's Grand Duo. Rachmaninoff's Op. 11 are his only known essays for piano duo. (though of course he wrote two suites and the Symphonic Dances for two pianos). These are early pieces dating from 1894. Although Rachmaninoff had only graduated from the Moscow Conservatory two years previously, he had yet to find himself stylistically; nonetheless, these pieces, for all their gaucheries, are quite attractive.

The performances are capable enough. The

Schumann seems to me more appropriately styled than the Rachmaninoff, which though cleanly and scrupulously played, sounds a mite angular and analytical, hard-toned, and lacking the nuanced flexibility this music ideally needs. The sound is of the sex studio variety, but very good of its type.

H.G.

CARVALHO: Te Deum. Louisa Bosabilian and Else Sague, sopranos; Carmen Gonzalez, mezzo; John Mitchellson, tenor; Alvaro Malia, bass; Chorus and Orchestra of Cámara Gui- 

benkian, Pierre Salzmann, cond. Archive 2533. 077. $13.96 (two discs).

If confronted with this music in a quiz all of us would miserably flunk it—no one could guess that the composer of the Te Deum was a Portuguese musician and would take it for the work of a minor Italian of the Neapolitan school. Sousa Carvalho (1745-1798), a contemporary of Mozart, was sent to Italy and apprenticed to Porrata; one of his fellow students was Pergolesi. He learned the craft of Italian dramatic composition so thoroughly that he became indistinguishable from his hosts.

This is decent and well-made music, but without a trace of individuality. Sousa Carvalho knows every trick and turn in the Neapolitan idiom, his music is a veritable storehouse of them, and he also knew his Mozart, but the end result is cliche upon cliche. Though the orchestration is pretty good, the work is short of breath and lacking in formal sense, the melodic invention is limited to con-

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Haydn: Symphonies (complete). Vienna Chamber Orchestra, Ernest Maerenzdorfer, cond. For a feature review of these recordings, see page 75.

Liszt: Christus. Eva Andor, soprano; Zsuzsa Nemeth, mezzo; József Réti, tenor; Sándor Nagy, baritone; József Gregor, bass; Lajos Basti, narrator; Kodaly Girls’ Choir; Budapest State Orchestra, Miklós Forrai, cond. Hungaroton LP 11506/8, $17.94 (three discs).

Most forgotten compositions richly deserve their oblivion. They serve principally as subjects for obscure monographs in obscure journals. Occasionally, however, one comes upon a work that has been unjustly neglected.

The great popularity of Liszt’s piano works and certain of the symphonic poems has thrust his sacred choral music into the background. Hungaroton has recently begun issuing a series of recordings of this literature, and their most recent release is the Christus oratorio. A lengthy and admittedly uneven retelling of the life of Christ that still has enough beauty, originality, and color to make it well worth knowing.

Liszt worked on the oratorio off and on from 1855 to 1868. Its varied moods and styles—from nineteenth-century symphonic poem to medieval chant—add up to a highly personal religious and musical utterance. It is by no means suitable for church performance, since it is far too long for any but the most devoted monk to sit through in the course of a Sunday service and too elaborate and difficult for the talents of the average church musician. It cannot be fitted, for purposes of description, into any liturgical form, and is a far cry from the oratorio styles of Handel and Mendelssohn. Powerful though the oratorio is, it can be faulted for its diffuseness. It consists of three large sections, unrelated except for thematic connections that often only amount to vague resemblances. Even within the sections, one occasionally gets the impression that Liszt was not always sure where he was going.

He compiled the text himself, using passages from the Gospels and adding hymns from the Latin liturgy. Gospel texts include the announcement of Christ’s birth to the shepherds, the visit of the Magi, the Beatitudes and Lord’s Prayer; the designation of Peter as head of the Church combined with Peter’s final charge to Peter to care for the sheep; the Passion and Lord’s Supper; the designation of the Apostles; the Ascension of Christ and the gift of the Holy Spirit; and portions from the life of Christ that still has enough beauty, originality, and color to make it well worth knowing. Most forgotten compositions richly deserve their oblivion. They serve principally as subjects for obscure monographs in obscure journals. Occasionally, however, one comes upon a work that has been unjustly neglected.

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sung but are simply written as moitbes in the purely instrumental score. The recording takes the appropriate liberty of having these exist recited during the movements.

The Christmas section—the first five movements—shows the most cohesiveness and imagination. It could easily function as an independent work; in fact, it would be an excellent choice for any organization that had a good orchestra as well as a good chorus and soloists, and thought it could survive without Messiah for one year. The section is mainly orchestral, with only the second and third movements for chorus. In the instrumental movements one sees the Liszt of the symphonic poems painting vivid and touching pictures of the events surrounding Christ's birth. A strong modal flavor, a foretaste of the Gregorian influence pervading the whole work, characterizes the opening movement, an anticipation of the Nativity. Some unabashed program music is heard in the pastoral-symphonic movement and the movement dealing with the Magi, which conclude the section. Despite the obvious tone-painting, they contain many outstanding passages. The real delight in this section is the Stabat Mater speciosa. Here Liszt begins with a simple and utterly lovely hymnical style that, even later when it becomes more elaborate, never fails to evoke the childlike wonder of the first visitors to the manger.

Of the next five movements—collectively Post Epiphaniam, covering events through Palm Sunday—the strongest are those dealing with Peter and with the storm. Liszt opens and closes the first of these with a majestic male-chorus declaration of "Thou art Peter," inserting a tender and lyrical statement of Christ's charge to "Feed my sheep" in between. The storm movement is a rousing and thoroughly Romantic orchestral picture of tempest and sudden calm, with the voices playing a subsidiary part.

The rest is conventional—though good—church choral music, spiced with unusual harmonies and persistent modal flavor. The gripping weak spot, unfortunately, is the Palm Sunday movement; it is too long and lacks both originality and direction.

The final section, "Passion and Resurrection," begins well, with a mournful, highly chromatic statement of Christ's anguished prayer before the crucifixion. The Stabat Mater dolorosa that follows, however, is much too long and elaborate a setting of this lengthy text to really sustain the listener's total interest. The last two movements recoup whatever damage may have been done by the Dolorosa, and form a fine conclusion. Both are settings of Latin Easter hymns, the first for girls' chorus and sparse orchestral accompaniment, the other for full chorus and solos, and ample orchestra. The ethereal Gregorian melodies in the one combined with the robust fugal writing in the other make a solid triumphant finale.

Although Qualiton is to be praised for reviving this work, some criticism is due for occasional weaknesses in performance and in recording quality. While the performance is generally good and presents a clear conception of an unfamiliar piece, the solo voices are undistinguished, and the chorus suffers from poor diction and a slight tendency to drag. The orchestra, however, is excellent. The recording was made in Budapest's Mathias Church. Like many churches, this one is evidently a species of echo chamber, the music tends to get lost in the vastness, and one could wish for a greater sense of presence in the recorded sound.

Pierre Boulez briefly considered performing this work as part of his current Liszt cycle with the New York Philharmonic. Difficulty in obtaining score and parts, and the fact that he had already scheduled two other large-scale Liszt pieces, made him change his mind. Perhaps an upcoming season, in New York or elsewhere, will see a truly first-rate performance of a work which, even allowing for its defects, is none the less historically curious.

Mahlcr: Lieder eines fahrenden Gesellen
Kinderliederynderv. Hermann Prey, baritone;
Concertgebouw Orchestra of Amsterdam, Ber-
nard Haitink, cond. Philips 6500 100, $5.98.
Selected comparison (Kinderliederynderv.):
Fischer-Dieskau
DG 138879
Perhaps this is something I should be discussing with an analyst, but I tend to assign gender to song cycles. In theory I know that a great artist should be able to sing any cycle effectively, regardless of sex, but I can't avoid the fact that the poetic viewpoint of some cycles seems decidedly male while that of others is clearly female. As a result, I am happiest when I hear this poetry in the appropriate vocal timbres.

In these terms, the Lieder eines fahrenden Gesellen strikes me as a male cycle, perhaps the last gasp of the Werther-like attitudes so characteristic of German romanticism in the nineteenth century. The Kinderliederynderv. Moreover, is a cycle of a father's mourning for his dead children. Mahler, in fact, wrote it before the actual death of his older daughter, but no matter. It is drenched with empathy for the poet and paternal grief, and even in the hands of a great woman singer the references to "your dear mother" as a third person produce a disconcerting note.

For these reasons the Prey record is most welcome. The only other disc of the Kinderliederynderv. by a male voice is a Fischer-Dieskau set, and the new Schwann reveals an overperforming major cycle among those who have records of the Fahrenden Gesellen cycle in print. I am delighted to see them getting some competition from a male singer of this stature.

The sound of the album is that of the Concertgebouw Orchestra in its home, a spacious concert room that is eminently hospitable to great music. The sessions are of the same vintage as the recent Mahler Eighth from this orchestra (in which Prey is also a soloist)—which is to say, the sound is quite natural and very good in quality, although the engineering gives a voice a pronounced middle bass resonance that one would not hear in live performance. Haitink's accompaniments are excellent. Prey is up against competition from a number of historical recordings of great interest. He does nothing to diminish their glory, but he gives us something they cannot rival—a completely up-to-date stereo edition with a major artist of today. For my taste, this is the preferred version of the Fahrenden Gesellen songs. Prey captures the moods of the text beautifully. The vocal production is light and easy, with a fine legato line underlining a forceful projection of the words. The Werther quality is really there.

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Monteverdi: *II Ritorno d'Ulisse in patria*. L'humana fragilità, Ulisse Sven Olof Eliasson (t) Tempo, Antinoo Walker Wyatt (bs) Fortuna, Giunone, Meliante Margaret Baker-Genovesi (ms)

Amore, Minerva Rolfrad Hansmann (s) Giove Ladislauis Andorko (t) Netuno Nikolaus Simkowsky (bs) Penelope Norma Lerer (ms)

Telemaco Kai Hansen (t) Pisandro Kurt Equiluz (t) Antinomo Paul Esswood (ct) Eurimaco Nigel Rogers (t) Eumete Max von Emgond (b) Iro Murray Dickie (t) Encelia Anne-Marie Mühle (c)

Venezia Concentus Musicus, Nikolaus Harnoncourt, dir. Telefunken SKB-T 23/1-4, $23.92 (four discs).

The plot from Homer's *Odyssey* is familiar. Ulysses, better known to us by his Greek name Odysseus, has had many adventures on his way home from the Trojan war. He is finally cast up on a beach near Ithaca, his native country, where he is disguised as an old man. He makes his way home, meeting on the way an old and faithful swineherd Eumaeus and his own son Telemachus. Meanwhile back at the palace, his wife the faithful Penelope has been waiting many years for Ulysses to come home. Ulysses arrives home still in disguise, beats all the competition in a series of contests, and finally throws the rascals out. He reveals himself to Penelope, who takes a bit of convincing, and everything ends happily. During all this, the gods—who as in the *Ring* started all the problems in the first place—discuss the progress of the plot, with two of them. Neptune and Minerva (or Pallas Athena), taking an active part in the proceedings. Monteverdi's librettist, Sacchini, sticks pretty closely to Homer, trimming a lot of incidents, heaping up Penelope's part, and providing her with a tuneful servant girl, Melanto, who with her boyfriend Eumaeus tries to interfere for the greedy suitors.

Monteverdi's music is a combination of all the popular styles of his day and as such is naturally reminiscent of many of his other works. Expressive recitative is the predominant vehicle for the text, flowing into more dramatic or lyrical musical forms when the occasion demands. The solo laments of Penelope and Ulysses, recalling the fragmentary "Lasciatemi morire" from the lost *Arianna*, are justly famous as is the comic take-off on the same form sung by Irus, the fat and greedy beggar. The cheerful Melanto sings charming Venetian arietas, a style also adopted by Minerva when she appears as a shepherdess. The extended aria in triple meter so typical of Cavalli isn't especially in evidence here despite the late date of the opera (1641?), although Ulysses himself does tend to break into song when things are going well for him, while the suitors express their thoughts in little set arias. The great lyric moments of the opera are set instead as chamber duets, an appropriate form for such an ensemble opera. "Verdi spigiole" for Ulysses and Eumaeus is a gem, and the duets of reunion between father and son, husband and wife are surely among the great expressions of the genre. Echoes of Monteverdi's most popular works in the genre, *Chione d'oro* and *Zeffiro torna* can also be heard in several scenes.

Unlike the mortals who sing in natural and melodious tones, the gods' declarations are all pomp and bravura. Their conversations are closer to competitions in which, being gods, they all come off extremely well. Monteverdi uses the competition with ensemble refrain to effective advantage in the somewhat superfluous allegorical prologue, but the device is especially successful in presenting the three suitors, who always appear as a group. One of the most dramatically effective scenes is the competition of the great bow where each suitor steps up, sings an aria, tries unsuccessfully to string the great bow of Ulysses, and then collapses into recitative. Finally an old beggar, Ulysses in disguise, humbly begs a chance. Success!—and now the exultant aria of triumph. What a moment from the father of opera himself.

The performers are uniformly excellent. In a cast of lovely chamber voices Norma Lerer is outstanding. Warm, round, quintessentially feminine, her voice sounds a lot like Helen Watts, and although she is billed as a mezzo, Lerer sounds beautifully soft and beautifully sung, with a nice color around middle C. Unfortunately Penelope is a bit dull; she reminds me of Britten's Lucretia, another virtuous bore, but perhaps that's the penalty for chastity. Rolfrad Hansmann is also extraordinary. I am sure the Italian courts of Monteverdi's time, where able brilliance and sparkling coloratura were especially prized would have paid immense sums to hear her in the virtuoso repertoire of the day. Her Minerva is also, happy to say, a well thought-out character who makes a convincing intermediary between gods and men. Sven Olof Eliasson lists himself as a tenor, but Ulysses is really a high baritone role. Like Orfeo he needs good firm notes in his lower register where most of the part lies. Perhaps Eliasson is indeed a tenor, but fortunately he doesn't show it except in the wonderful lack of strain when he goes gradually up the scale.

Margaret Baker-Genovesi has an even, clear, and most attractive mezzo, and she phrases like an angel. In three roles she creates adequate contrast without sacrificing vocal quality. The roles of the suitor Antinoo and Tempo in the prologue call for a black-tongued bass; one wonders if Monteverdi could have had in mind the same singer who created the
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For only $85 complete with foam-lined carrying case, the Koss K 2+2 is worth listening to at your favorite Stereo Dealer. You might even say it’s like buying four-channel on a two-channel budget. Which is a switch.
The two generally available integral editions of Mozart piano sonatas by Walter Klen (Vox) and Walter Gieseking (Saraphim) are both budget releases, but the field was wide open for a new, expensively packaged alternative. If, dear readers, you detect a hint of veiled sarcasm in my opening, it is only half intended. But I will not be deterred. I will ask why the fill prices when you can have this music played by a fine artist at modest rates? My answer is twofold. Gieseking's eleven-disc cycle of the entire Mozart piano works—sonatas, variations, short pieces, et al.—dates from 1956, perhaps even earlier (it was released originally on the full-priced Angel label to celebrate the bicentennial year). The recordings are naturally mono only (thanks to the good sense of the powers that be at EMI who honorably refrained from stereo simulation), but a lot of people unfortunately prefer stereophony to a great performance. Furthermore, Gieseking's Mozart style exemplified by this set is firmly contrapuntal. Some find his cantabile, beautifully proportioned playing the ultimate in classical decorum; others disparage the style as wan, offhand, and superficial. As for Klen's much newer, admirably musical playing, his cycle is the occasional victim of overmodulated sound and careless production. Sometimes his usually forthright style lapses—into the more lyrical pieces—into a sort of Viennese routine: amiable, a bit self-consciously easygoing, and structurally soft-centered. These lapses, I should add, do not occur often in the sonatas though they turn up rather more frequently in the later two albums containing the short pieces and variations. The stereophony in Klen's set is of course real.

Eschenbach's new panorama will, it is hoped, soon be joined by Lili Kraus's similar effort for CBS. That estimable Mozartean's performances were recorded by EMI, but that subsidiary of Columbia ceased operating as a classical label after only the first two of her proposed five discs saw the light of day. (The entire cycle has since appeared in Japan.) With this background out of the way, I welcome the Eschenbach album with modified rapture. This artist has, I feel, given us the most favorable demonstration yet of his abilities as an interpreter. His recent recordings of Beethoven (the Karajan-led First Concerto and the Hammerklavier) were too painted with rouge to be of more than superficial interest. I was quite agreeably surprised to find his Mozart performances for the most part quite free of such lily-gilding cosmetic touches. In the main, this Mozart playing is admirably clear and strong, with the intelligent forward motion of the best modern style co-existing with an almost unblurred classical "wrenchment." The playing is ordered, clear-fingered, and (with a few exceptions which I will get to later) refreshingly unaffected. The attention to detail so necessary for proper realization of this difficult, transparently linear music is admirably present. His reading of Eschenbach's way, less relaxed than Klen's, more "traditional" than Kraus's, and decidedly more red-blooded than Gieseking's can be taken as a paradigm of middle-ground moderation. His is not a particularly beautiful tone—indeed, some may find the linearity of his pianism a bit flinty and picky—dare one say it. "New-American." I personally was buoyed up by the insistent rhythmical lift, the heady allegros, and the general vitality of it all, though once in a while a bit of scruffy articulation or an unsteadily rushed passage struck a sour chord in my response. In general I like the playing very much, but ultimately find greater distinction in Gieseking's ultrachaste purity and Mme. Kraus's uniquely abandoned personal authority.

Eschenbach is quite conscientious about repetitions, but he is never a mere slave to them. Expositions are generally always reiterated. I say "generally" because I forgot to take notes on every one of the sonatas and may have failed to record an isolated example of a bypassed double bar. I did, however, notice that the
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Variations in the first movement of K. 331 were bereft of second-half repeats. Taking the law into one's own hands regarding such de rigueur repeats has, it seems to me, the peril of courting structural disaster. Eschenbach runs straight into the trap in the final variation where the repeat is written out with different figurations. Observing this one but none of its predecessors makes a lopsided thing of the whole movement. On the brighter side, Eschenbach respects the binary form in the final variation movement of another sonata, the curious K. 284 (curious because Mozart juxtaposed a conventional first movement, a polonaise, and a very long set of twelve variations). He also observes the double repeats in the first movements of K. 310 and K. 457, as well as in the shorter sonatas K. 282 (both first and last movements), K. 545, and in the last movement of K. 280.

The subject of repeats brings me to the question of embellishment. It is generally known that Mozart, ever the master improviser and disciple of the variation technique, utilized the repeat to introduce a goodly amount of added decoration. Landowska, for one, followed this practice almost to excess; Eschenbach, on the other hand, does not. Indeed, he is such a conservative on the matter of embellishment that he even bypasses Mozart's own written-out alternative in the second-movement recapitulation of K. 332. He is, in my experience, the only professional pianist to do so. Indeed, a slightly altered dynamic is about the only concession Eschenbach ever makes vis-à-vis decoration and variety. But better this omission than tasteless redundancies!

In matters of ornamentation, Eschenbach is fairly astute. His appoggiaturas are generally long or short as specified by the text, and usually begin on rather than before the beat. Trills, too, except when they are passing tones. Begin with few exceptions on the upper auxiliary. This supplies the desired biting touch of dissonance (which, after all, was the raison d'être of such adornments).

Since so much of the playing is of a consistent (high) quality, evaluating each sonata individually might prove a bit repetitious. There are, nonetheless, certain high and low spots which oughtn't go unmentioned. First of all, there are the two very early sonatas from K. 46 which date from 1768. Mozart's thirteenth year. These are, if I am not mistaken, omitted from both the Kien and Gieseking anthologies. Eschenbach plays these stirringly and wisely refrains from investing them with too much splendor and nuance. (Gieseking similarly veered clear of preciosity in the juvenilia he did play). One of the set's high points. I felt, was the wonderful late F major Sonata, K. 533. This brochure makes the usual error of listing this work as K. 533 and K. 494. To be sure, Mozart composed the first and second movements to accompany the K. 494 Rondo as an afterthought; but when he did so he also thoroughly revised the later, adding an elaborate cadenza. Be that as it may, Eschenbach's broad, massive, thoughtfully graded performance—closer in style to Gieseking's than to Peter Serkin's more flowing, graceful, and equally distinguished account for RCA—fills the bill beautifully. I also liked very much the clean, unaffected delivery of K. 333, the penultimate, but not over pensive K. 282. And the expansive accounts of K. 332 and K. 570. On the other hand, I was sorely disappointed by the heavy, sentimentalist K. 331 (contrast Lili Kraus's wonderfully bracing account on Monument 52105) and by the lack of pose in the great K. 576 (so like a string quartet, this last piece). If someone calls attention to the fact that K. 331 and K. 330 (another mincing failure in Eschenbach's edition) were recorded at an earlier stage in the young pianist's career and that he himself available for several years on DGG 139318, I acknowledge that fact and hasten to point out that the admirable K. 332 and K. 333 were taped earlier still (despite DGG's later disc number: 138949). Since neither of these previously issued discs were recoupled in the new set, why, I wonder, were their bonus short pieces excused? The answer, I suspect, is that Eschenbach intends to record all the short pieces to supplement the sonatas and that these, in due time, will also be available. I hope that if such an album materializes, it will find a niche for the fine Sonatas K. 545 and K. 546, omitted from the present album and also for the fine G minor Sonatina, K. 312 similarly bypassed. H.G.
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More than five years ago, without much fanfare, we came out with a very carefully engineered but basically quite straightforward floor-standing speaker system. It consisted of six cone speakers and a crossover network in a tuned enclosure; its dimensions were 35” by 18” by 12” deep; its oiled walnut cabinet was handsome but quite simple.

That was the original Rectilinear III, which we are still selling, to this day, for $279.

Within a year, virtually every hi-fi editor and equipment reviewer went on record to the effect that the Rectilinear III was unsurpassed by any other speaker system, regardless of type, size or price. (Reprints still available.)

Then came about forty-seven different breakthroughs and revolutions in the course of the years, while we kept the Rectilinear III unchanged. We thought it sounded a lot more natural than the breakthrough stuff, but of course we were prejudiced.

Finally, last year, we started to make a lowboy version of the Rectilinear III. It was purely a cosmetic change, since the two versions are electrically and acoustically identical. But the new lowboy is wider, lower and more sumptuous, with a very impressive fretwork grille. It measures 28” by 22” by 12½” deep (same internal volume) and is priced $20 higher at $299.

The new version gave Stereo Review the opportunity to test the Rectilinear III again after a lapse of almost five years. And, lo and behold, the test report said that “the system did an essentially perfect job of duplicating our ‘live music’ and that both the original and the lowboy version ‘are among the best-sounding and most ‘natural’ speakers we have heard.’” (Reprints on request.)

So, what we would like you to figure out is this:

What was the real breakthrough and who made it?

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Dido and Aeneas is one of the monument in the museum of musical history and an English national treasure. It remains "the only true great English opera" until modern times, because the English refused to accept the new dramatic style streaming from seventeenth-century Italy and invigorating all of Europe's music. The nations that rejected opera—the Dutch who had ruled music for two hundred years, as well as the English—were left behind by the musical current. Still, post-Jacobean music was not nearly so lamentable as unformed and biased Continental music history has presented it; Purcell did not "rise from the ashes of English music." There were plenty of talented musicians in England but two circumstances combined to arrest an orderly and logical continuation of their great musical past. First, a culture boasting a highly developed spoken theater will not take kindly to a form of theater "all sung"; the same was true of the French, but Lully rammed it down their throats. The second was that opera, in the minds of English Protestants, was too closely associated with Catholicism, almost a form of popery. They accepted and loved music and the dance as accessories to a play, but were unwilling to surrender the theater altogether to music. Though a true opera, Dido and Aeneas was not openly quite that, being intended not for the public theater but for a private girl's school; and it is significant that Purcell's great scores of Diocletian, The Fairy Queen, and King Arthur were all incidental music to plays, though all were composed after Dido and Aeneas. So the greatest musicdramatic genius produced by England was the victim of circumstance, as to a considerable extent was Rameau in France.

But an incomparable masterpiece this tiny opera is, uniting Shakespearean dramatic force with Cavalli's and Cesti's baroque pathos in decidedly English and very personal accents. The older Venetian opera reached Purcell via Lully—hence the strong dance element. The arias, especially those of Dido, are exquisitely sculptured, the instrumental numbers are delectable, the realism of the chorus of witches with their sardonic laughter is gripping, the harmonies are astir, the chorale writing is pellucid, and no one has ever surpassed Purcell in setting the English tongue to music.

This hauntingly beautiful work receives a performance that is a model of how old music should be treated in the twentieth century. The score is scrupulously respected but without antiquarianism: there is no painfully tepid singing, no thin orchestral sound, no enforced ornamentation, but intelligent, solid, sensitive, and entirely healthy music-making. Colin Davis is in full command from beginning to end, the orchestra and John Alldis Choir are superb, and the sound is unexceptionable. Josephine Veasey takes good care of the role of Dido: she has a sizable mezzo-soprano that sounds fine, though in the upper reaches of the staff it can be a little edgy. Helen Donath is a pleasant Belinda; but the special star in this performance is Elizabeth Bainbridge, the Soverness. She possesses an ample, well-controlled and colorful mezzo which she manipulates with fine musical sense, and her diction is exemplary. John Shirley-Quirk (Aeneas) is his usual reliable self, though the other baritone, Thomas Allen (Sailor) has a better focused voice. All the minor roles are in good hands. Particular praise is due to the choral sound, usually the bane of such recordings; it is lovely in the pianos, ringing in the forces, but always crystal clear. John Constance's continuo realization is tasteful and inventive, and the harpsichord is always crisply in evidence. If there is a flaw in this excellent production it is the occasional tightness of the recitatives, which should be less regimented. But make no mistake, Colin Davis' Dido and Aeneas is a memorable artistic event.

Purcell: Dido and Aeneas.
Dido Josephine Veasey (soprano)
Belinda Helen Donath (soprano)
Soverness Elizabeth Bambidge (soprano)
1st Witch Delia Wallis (soprano)
2nd Witch Gillian Knight (soprano)
Aeneas John Shirley-Quirk (baritone)
Sailor Frank Patterson (tenor)
Sailor Thomas Allen (baritone)
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### Vaughn Williams: Magnificat; Riders to the Sea.

**Nora**
Norra Burrowes (s)

**Cathleen**
Margaret Price (s)

**Maurya**
Helen Watts (ms)

**Bartley**
Benjamin Luxon (b)

**A Woman**
Pauline Stevens (ms)

**Ambrosian Chorus, Orchestra Nova of London.**

**Meredith Davies,** cond. Angel S 36819, $5.98.

The Magnificat is one of Vaughan Williams' shortest choral works but one of his most powerful and perfectly shaped. It was written at about the same time as his Third Symphony, and shares a certain stringency and intensity with that famous composition. The solo voice is more florid and dramatic than one would expect of Vaughan Williams, and it is balanced by a rather elaborate part for a solo flute. The glory of the Lord himself ignites the climax here, thanks in part to the superb singing of Helen Watts and the excellent performance with which Davies et al. back her up.

**Riders to the Sea**

Mauria, mother of six sons, who lived through the sea-deaths of them all and who, at the end, with distant keening voices in the background, attains a kind of peace. The dialogue of Maurya's daughters at the start of the opera, they open a bundle of clothes taken from a drowned man and identify them as having belonged to their brother Michael, is more prelude: the off-stage death of Bartley, the last of the six sons, is a necessary plot device; the heart and soul of the opera is Maurya's tremendous arioso at the end.

The word-setting allows J. M. Synge's Irish dialect text full play, although very much more intense and dramatic than Debussy's word setting in Pelleas, often is really a piece of that masterpiece in the vocal writing here. That Vaughan Williams was a past master at suggesting atmosphere and subtly the atmosphere of Celtic twilight and bitter darkness, goes without saying. In his notes, Michael Kennedy suggests that this is Vaughan Williams' finest opera. I am not sure I agree, thanks to unforgettable memories of Sir John in Love, which is much more complex and involved achievement: but Riders to the Sea is surely one of the finest stage works of a com-
poser whose contributions to opera have been sinfully neglected. The performance is magnificent in every detail.

A.F.

recitals and miscellany


DE FALLA: Concerto for Harpsichord, Flute, Oboe, Clarinet, Violin, and Cello. ORBÓN: Tres Cantigas del Rey, Partitas. DE SELMA Y SALARVERDE: Canzona a 4; Gagliarda a 2; Canzona per soprano solo; Balletto a 2 e a 3; Corrente a 3, Corrente a 4; Canzona a 3. DE ARAUJO: Quinto tiento de septimo tono.

Selected comparisons (De Falla)

Marlowe Decca 710108
Soriano Angel S 36131

Although I have always found De Falla's harpsichord concerto a bit grating in its relentlessness, I must admit that it is a beautifully scored work, full of infectious, often hypnotically effective, balletlike rhythms. Thus the perfectly balanced, unbelievably clean stereo sound and the superb performance by Landowska student Rafael Puyana, who displays a particularly strong grasp of rhythmic detail, do De Falla complete justice—this disc is even to be preferred to the estimable versions by Sylvia Marlowe and Gonzalo Soriano. Puyana's rhythmic sensitivity also well serves the partitas by contemporary Spanish composer Julián Orbón, whose remarkably sonorous variations in this work owe much of their improvisational quality to the constantly shifting meters. In a totally different vein, Orbón's other work on this disc, the Tres Cantigas del Rey, is a lilting and poignantly captivating arrangement for soprano, harpsichord, string quartet, and percussion of three thirteenth-century cantigas to the Virgin Mary, and they are wistfully sung by Heather Harper.

The remaining works on this release all come from the Spanish baroque period. The pieces by Fray Bartolomé Selma y Salarverde, taken from his fifty-seven Cantigas Fantasie e Correnti, represent a curious and fascinating mélange of medieval rhythms and instrumentation with baroque harmonies and textures. For these dance-like instrumental pieces, Puyana proves to be an admirable anchor man at the harpsichord, and he is surrounded by an outstanding group of English performers who turn in marvelously spirited and idiomatic interpretations of these previously unrecorded works. The Tiento by Francisco Correa de Araujo is built around a slow, haunting theme that is woven into a masterfully constructed ricercare whose voices are skillfully delineated and developed by Puyana on a double-manual harpsichord, even though the work was intended, as the soloist points out in his extremely intelligent liner notes, for a single-manual, double-register organ.

Complementing the over-all worthiness of this release is the fact that it is pressed on a solid piece of vinyl that does not fold flaccidly in your hands—in fact, it is the first totally unwarped LP I have come across in some years. Three cheers for Philips! R.S.B.
by Dale Harris

The Lost Art of French Vocal Style

It would be nice to think that the recent, long-awaited reopening of the Paris Opéra heralded a new age of French vocal art, but a glance at the first eight weeks’ schedule is sufficient to put the notion to rest. French opera, on which a French school of singing depends, is hardly in evidence. L’Heure espagnole (in a triple bill with Tabarro and Gianni Schicchi) is the solitary native representative. There are also Maria Galloin, Barbierie, and Die Walküre. Reports from Paris indicate a sharp rise in standards over the recent past; matters will no doubt improve still further when Rolf Liebermann eventually takes over. In time it is hoped that the French capital will once again assume her old place as an operatic center. Whatever happens, however, it seems fairly clear that the French school of singing, in decline for a couple of generations at least, is about to suffer extinction. Not that there won’t be good singers—these, though few, exist right now—but there isn’t much likelihood that they will any longer be essentially Gallic in style. The repertoire that nurtured French vocal art has, to all intents and purposes, vanished: Guillaume Tell, La Juive, Le Prophète, Les Huguenots, the charming pieces of Aubry, Boieldieu, Adam, Gounod’s Mireille and Medecin malgre lui, Thomas’ Mignon, the oeuvre of Massenet. These works can still be heard somewhere or other—in Switzerland, Germany, and the provinces of France usually—but they play no real part in the larger operatic world to which the French now aspire. Liebermann, it appears, will bring the Paris Opéra into the twentieth century. The spirit of Hamburg will put provinciality to flight. Handel and Berg will, very properly, have an appropriate air of introspection. The whole enterprise, from title to contents, smacks of managerial gimmickery rather than artistic commitment. There is no real connection here with operatic Paris. Prima donnas do not sing opérette in Paris very often—especially with the Berlin Volksoper Orchestra. Nor is Crespin likely to be heard there soon in works like Ascaino or Sapho, last seen at the Opéra in 1921 and 1884 respectively. Carmen seems remote too, but for reasons of unsuitability. Delightful as it would be to take this recital as a straw in the wind, its most important feature is that it brings some worthy and delightful music into the domestic catalogue.

What it does not do is attest to Crespin’s versatility. Stateliness and pathos are her chief gifts. Partly this is a matter of temperament, partly of vocal technique. To the sonorous, slow-moving despair of Iphigénie and Sapho she brings the right kind of breadth and grandeur. To the domestic scale of sorrows in Werther and to the sensual disquiet of Berlioz’ Marguerite she brings an appropriate air of introspection. Comparisons with her ten-year-old recordings of the Berlioz (Voix de son maître) and Gounod (Vêga) show a loss both in steadiness of tone and suppleness of voice, though the intentions are nevertheless admirable. But the joviality (not to mention the trill) of Scozzone’s song from Ascaino, the Carmen Habanera and Seguidilla, and the whole of the second disc devoted to the world of opérette find her at a distinct disadvantage. She goes at the music with a will, but without the sufficient vocal pliancy, lightness of touch, or wit. Sometimes Crespin does something wonderful—finds a perfect nuance (“je t’adore, brigand”) or creates an irresistible mood of languorousness (as in the second verse of “Ah! quel diner”)—but on the whole she tends to be too big in scale, too heavy, too matronly. The Carmen pieces are egregiously inappropriate for her. The Seguidilla (an uninviting potpourri that omits Don José’s role entirely) sounds more mellifluous than seductive.

The opérette is certainly better than this, but even so this music needs a more pointed delivery, a swifter, fleeter style. To listen to the records of Maggie Teyte and Yvonne Printemps that seem to have influenced Crespin’s performances is to see at once that Crespin has been unable to discard her weighty operatic manner for the lighter mood of opérette. In addition, Crespin lacks that rhythmic animation which every great practitioner of light music from Fritz Massary to Géori-Boué (or more recently to Frank Sinatra) has always had. Without this quality the music can never yield up more than a fraction of its charms. If you are attracted to the melodic gifts of Hahn, Messager, Christine, and Oscar Strauss, the beguiling old recordings of Yvonne Printemps are well worth searching out in specialty stores. Crespin’s lack of rhythmic liveliness is a drawback in the operatic excerpts too. Neither Alain Lombard nor Georges Sebastian brings enough firmness to the music, and as the dominant personality, Crespin shows a disturbing tendency to dawdle. The Werther selections, especially the Air de la lettre, are very slack. Here again an older French singer provides the model: The Ninon Vallin recording (with Georges Thill in the title role) shows what was once possible in this music and what seems to have vanished forever. Crespin, as her fine Marschallin under Solti reveals, is more at home on alien territory.

RÉGÎNE CRESPIN: “Prima Donna from Paris.”


When it comes to choral singing—the real thing, floating buoyantly free from earthbound tempered-scale accompaniments of any kind—nobody, save possibly the Welsh, can beat the Russians. Yet it's all too seldom that one can relish the best Russian choristers (including some of their incomparable organ-pedal-tone deep basses), led by a conductor who knows the arcane secrets of how best to train and direct choirs, in a repertory and in recorded performances as near ideal as those in this superb release. The only adverse criticism that might be made is the failure to identify either the gifted arranger(s) of the eight "traditional" songs included here or the occasional soloists—in particular the breathtakingly beautiful mezzo starred in the haunting White Birch and On the River Neva settings.

The major work here is Rimsky-Korsakov's mellow sonorous, balladlike setting of a folksong, The Tartar Captives, which he wrote in the summer of 1877 when he was first sketching out materials for the opera May Night. It was one of two choral works which later won prizes in a competition sponsored by the Russian Musical Society—rather embarrassing triumphs since Rimsky himself, after he had submitted his candidates anonymously, was appointed one of the contest judges and had to avoid evaluating his own contributions without giving their authorship away to his colleagues. Of the other two named composers represented, one, Runyantsev (who contributes a grave but dramatically worked-up Roar, Amur River) is unknown to me. The other is A. Y. Varlamov (1801–1848), whose Do Not Sew Me a Wedding Sarafan, Mother is the source of the world-famous melody The Red Sarafan, commonly but erroneously thought to be a folksong. For programmatic variety, three of the eight traditional pieces are in lively moods (Along the River; From a Country, a Faraway Country; I, the Young Wife), but while these are effectively exciting, the singers' magical telonic qualities and dictional clarity are most evident in the quieter selections which include (in addition to those already cited) The Bells Were Ringing, A Pear Tree, and Snow All Around.

The present ensemble probably is much the same as the Sveshnikov Chorus heard in Melodiya/ Angel's Tchaikovsky choral program (SR 40039, 1968) and the U.S.S.R. Russian Academic Chorus conducted by Aleksander Yulov in the Beresovskii-Bortniansky-Vedel choral “concerto” program (SR 40116) and the Taneyev choral program (SR 40151) which I reviewed in October 1970 and May 1971 respectively. It's very different from the Red Army Choir, Don Cossacks, and similar choral groups that usually sing with instrumental accompaniments. These provide fine accompaniment of an entirely different artistic character, but they never approach the incomparable purity and majesty of the choral tone colors and sonority that make the present release so irresistibly enchanting.

R.D.D.

BARTOK wrote his two violin sonatas in consecutive years—1921 and 1922. They have much in common: Both are aggressively dissonant, largely rhythmic in basic conception, tonally individualistic in form, and in both there is a remarkable independence in the relationship between the two instruments. They are also two of Bartok’s most original and interesting works—the second suite. I feel, among the composer’s masterpieces. Stern is not known for his performances of “difficult” twentieth-century music (although he has recorded quite a few of the more generally accepted concertos), yet he plays these pieces with an impressive sureness and naturalness. He is well assisted by pianist Alexander Zakin, and despite an occasional need for more rhythmic drive, the performances are warm and musically convincing. This is particularly a welcome addition to the catalogue as it constitutes the only disc currently available that includes both sonatas. R.D.D.


Christine Walewska is obviously a young lady of exceptional talent and considerable temperament. A pupil of Piatigorsky in California and of Maréchal in Paris, she is one of a number of extraordinary young musicians from the West Coast in recent years. Eliahu Inbal is another up-and-coming young musician, a conductor who is traveling on the international conducting circuit with considerable acclaim. It would be nice to recommend this disc as the kind of exciting recording debut that both of these young musicians deserve, but they are saddled here with a poor orchestra. Even in the relatively uncomplicated Schumann concerto, the lack of a well-characterized sound of the orchestra and its failures of intonation detract from a very good solo performance. But in the Bloch, where the composer calls for “full orchestra,” the interplay between solo and ensemble frequently becomes a travesty. Without a real give-and-take here, this remarkable work falls to pieces, for no amount of effort from the soloist can rescue the performance. P.H.


If any man in our time knows his way around the music shelves of Austrian palaces and castles that man is H. C. Robbins Landon. In his Haydn safaris, presumably after bigger game, he has come upon these divertimentos for six wind instruments—works we learn from the perceptive album notes that they turned up in a variety of corners, often in sets of parts but in two cases in Haydn’s own autograph scores. Composed in his early days at Esterhazy or shortly before, they are a happy lot of pieces—incorporating, inevitably, a certain amount of oom-pah-pah but going beyond that to exploit varieties of timbre and occasional bits of dialogue. There is one prominent adagio (in No. 1) wherein the horns surface with rather remarkable solemnity. For the most part the oboes dominate, but there are a few forays even by the bassoons, and a couple of hunting-horn movements that give the horns their head in real field-and-stream spirit. Several of the trio sections too are especially fetching. The London Wind Solos perform with precision, a fine articulation, and perfect instrumental balance. S.F.


The string quartet medium is not too congenial to Prokofiev’s style or temperament. In large-scale works he needs a broader tonal palate than the string quartet offers. His best chamber music adds winds or piano to the relatively restricted sound of the strings. In these quartets his musical ideas sound rather thin and the texture betrays almost nakedly the composer’s inability to sustain a contrapuntal development of his materials. Nor do these performances by the Novak Quartet add materially to the pleasure of this record. Not only does the group give rather literal and uninspired readings of both scores, but they do so with a bleakly unproven string tone. The Second Quartet, especially, with its somewhat simple-minded thematic material could have benefited from a warmer and more imaginative approach. P.H.


These may be the pieces you were always afraid you were going to hear on the Moog and now you’ve got it. But I suggest letting the cat out first. Mine turned to me with eyes as big as dishes before he hit the floor, and he wouldn’t come out of the bathroom (that’s where he thinks) until sometime during the Carmen excerpts—after all, his name is P.T. Barnum and he knows a good show when he hears one. He tells me that the recording is really quite feline in its lightness of weight and its quota of sheer cheek. I tell him that the kind of equipment one has taken these pieces apart and put them back together in all those audacious timbres reminds me of a Picasso portrait—a mixing of planes and perspectives still related to the original. And the Moog told us how good it was. It gives itself its own applause at the end. It really didn’t have to—we would have supplied it. S.F.


The L.A. brass and percussion ensemble is a big one, thirty-one players in all who perform with professional discipline and are excellently recorded here, if in a somewhat dry acoustical ambience. The all-contemporary program is a mixed-bag, however. Raymer Brown’s Toccata, Adagio, Scherzo, Passacaglia, and Fugue are conventional but not uninteresting pieces, seriously handicapped for me by the ugly-sounding modern instrument used for the organ part. Tull’s Liturgical Symphony is even more handicapped by pretentiousness and an irrational (to me) oscillation between extreme consonance (for plainsong melodies) and extreme dissonance. The seven fanfares vary widely in style, naturally enough, since they are by different (mostly West-Coast, I presume) composers. But they are nearly all quite effective for their purpose, while at least a couple of them (say the aleatory piece by Frank Campo and the metrically inexact one by William Kraft) demonstrate some distinction. R.D.D.

in brief

There are already two good recorded performances of the once popular (and still ingratiating) Arensky trio, but this one may be preferred by some—even over the classic Heifetz/Piatigorsky/Pennaro version for RCA—for its more authentically “Russian” fervor and the uninhibited bravura of its players, virtuoso pianist Zhukov in particular. He and the gifted Feign brothers are no less sparkling and outgoing in Glinka’s early works than elsewhere the violinist’s rather sticky-sweet tonal qualities are less appropriate—perhaps because the music was originally conceived for the very different colorations commanded by two woodwinds with piano. Even so, the music itself is fascinating both for its naively reflected Italian influences and for the absence of any clear anticipations of the mature master’s distinctive originality. In both trios the Russian players’ infectious enthusiasm and boldly assured virtuosity are admirably captured in a vivid recording. R.D.D.

ALEXANDER ZAKIN: Toccata, Adagio, Scherzo, Passacaglia, and Fugue are conventional but not uninteresting pieces, seriously handicapped for me by the ugly-sounding modern instrument used for the organ part. Tull’s Liturgical Symphony is even more handicapped by pretentiousness and an irrational (to me) oscillation between extreme consonance (for plainsong melodies) and extreme dissonance. The seven fanfares vary widely in style, naturally enough, since they are by different (mostly West-Coast, I presume) composers. But they are nearly all quite effective for their purpose, while at least a couple of them (say the aleatory piece by Frank Campo and the metrically inexact one by William Kraft) demonstrate some distinction.

R.D.D.
RECORDS IN REVIEW
1971 EDITION

THE SIXTEENTH ANNUAL COLLECTION OF RECORD REVIEWS FROM HIGH FIDELITY

544 pages. 5½ x 8¼. $9.95

This annual brings you in one convenient book hundreds of reviews of records which appeared in High Fidelity magazine in 1970—classical and semi-classical music exclusively—and includes information about corresponding tape releases, whether in open reel, cartridge, or cassette format.

Each reviewer stands high in his field—Paul Henry Lang, for instance, reviews the early classics; George Movshon and Peter G. Davis examine opera recordings; Harris Goldsmith the piano literature; Alfred Frankenstein the modern Americans; and Robert C. Marsh and David Hamilton discuss the post-Romantics. In addition, this year's annual includes reviews by the noted pianist, Glenn Gould, and by Harold C. Schonberg, chief music critic on The New York Times. Fortrightly they discuss the composition, performance, and sonic quality. And they compare new recordings with earlier releases and with legendary performances.

The reviews are organized alphabetically by composer for quick, easy reference—and in the case of composers frequently recorded, further subdivided by such categories as Chamber Music, Vocal Music, etc. Moreover, there's a special section on Recitals and Miscellany and a complete Artists' Index of all performers reviewed during the year, as well as performers mentioned only in the text.

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The Hartford Times
the lighter side
reviewed by
MORGAN AMES
ROYAL S. BROWN
R. D. DARRELL
HENRY EDWARDS
MIKE JAHN
JOHN S. WILSON

THE ROLLING STONES: Hot Rocks, 1964–1971. Mick Jagger, vocals, Keith Richard, guitar, Charlie Watts, drums; Mick Taylor, guitar; Bill Wyman, bass; vocals, and instrumental accompaniment. Get Off My Cloud; 19th Nervous Breakdown; Paint It, Black; Jumpin’ Jack Flash; Street Fighting Man; Sympathy for the Devil; Honky Tonk Women; Gimme Shelter; Brown Sugar; twelve more. London 2PS 606/7, $9.98 (two discs).

From all the noise and sweat and achievement of the rock scene of the 1960s, what remains? The Beatles are gone, Dylan is present but sporadic. The Rolling Stones, in retrospect, seem even more important as driving forces behind so much that happened and so much that still happens in rock. This two-LP set combines all their best-known, and most of their best work—twenty-one songs in all.

It's really a majestic package and not just for historical value. The Stones' early songs, like Satisfaction and Get Off My Cloud, still are comparable to the best heard today. Jumpin' Jack Flash, Honky Tonk Women, and their recent Brown Sugar are models of hard rock; Sympathy for the Devil and Gimme Shelter are particularly earthy musical dramas. Finally, in "British Blues Invasion of the Seventies," Manfred Mann's Earth Band "head and shoulders above the others—all those politicians whom we would love to see make blatant and unsubtle fools of themselves. To the exhausted and suspicious American public, the cruelty of good political satire is sheer joy. Nothing is changed, of course. But the crushing humorlessness of politics is eased for a moment."

JUDY COLLINS: Living. Judy Collins, vocals, guitar, and piano; rhythm accompaniment. Joan of Arc; Blue Rainbow; Four Strong Winds; seven more Elektra 75014, $4.98.

Judy Collins is the undisputed Mother Earth of folk singers. One may prefer one of her albums to another for personal reasons, but she has never made a record that didn't have an interesting cast to it. Her new album is notable for two qualities: its simplicity and the beauty of her voice. I have never heard her in better shape vocally.

Once again, Miss Collins has chosen a fascinating program of best songs by other writers, most of them her friends. Two are by Leonard Cohen: Blue Rainbow and Joan of Arc—and both are engrossing. Four Strong Winds is the well-known song by Ian Tyson of Ian and Sylvia. All Things Are Silent was arranged and adapted by Miss Collins and is sung a cappella with breathtaking clarity. "Easy Times ("Easy times come hard for me.") was written by Miss Collins and Steacy Keach for Keach's film, The Repeater, an extraordinary work about prison recidivism which has been shown on educational television. Judy Collins was the first to present publically on a large scale the songs of her friend, Joni Mitchell, most notably Clouds. In this set Miss Collins performs Miss Mitchell's "Chelsea Morning" on which Richard Bell plays beautiful piano. This version is performed a bit slower than Miss Mitchell's own, and I may end up liking it even better.

Surely this is one of Judy Collins' best-ever albums, and it is highly recommended."

MANFRED MANN'S EARTH BAND. Mick Rogers, guitar and vocals; Manfred Mann, organ, synthesizer, and vocals, Colin Pattenden, bass; Chris Slade, drums. California Coastline; Captain Bobby Stout; Sixth; seven more; Polydor PD 5015, $5.98.

Since 1964 Manfred Mann's name has been synonymous with good music. While nothing on Manfred's new album matches the excitement of his first hit, Do Wah Diddy Diddy, or the joyousness of his biggest U.S. single, "The Mighty Quinn (Quinn the Eskimo). there are enough of the Mann skills present here to encourage one to listen. Mann has a well-placed, white-blues voice; he is a keyboards master; he always has had the ability to put together a band whose major concern is the music and not showing off. Those skills place "Manfred Mann's Earth Band" head and shoulders over most of the other albums and recordings."

This album, Mann works over another Dylan tune, "Please Mrs. Henry," and the performance is a punchy one. He creates a throbbing rendition of Randy Newman's "Living Without You. Part Time Man and I'm Up and I'm Leaving also have that haunting, urgent quality that has always marked Mann not only as a quality rocker but also as a musician."

It is a sort of "This Is Your Life, Richard Nixon" hosted by Billy Graham. Graham begins at the beginning, wherein Nixon is born with a five o'clock shadow. We follow little Dick to school, where he runs for class president and gets turned down by girls for dates ("All right, but you won't have Dick Nixon to kick around anymore," etc.). Frye includes voices alarmingly close to Humphrey, Rockefeller, Buckley, Muskie, Kissinger, and others—all those politicians whom we would love to see make blatant and unsubtle fools of themselves. To the exhausted and suspicious American public, the cruelty of good political satire is sheer joy. Nothing is changed, of course. But the crushing humorlessness of politics is eased for a moment.


David Frye is one of our best young comics and a familiar face from TV variety and talk shows. He made it during the Johnson administration because of his irresistible LBJ imitation. He has proved himself equally capable of raising hell with Nixon and friends.

The beauty of this album lies in its concept.

Carly Simon—working and growing.
The King Biscuit Boy (nee Richard Newell) has been playing harp and guitar and singing the blues since 1961. He has been a member of three bands and has even worked with the legendary Ronnie Hawkins, helping to create the "Toronto Sound" of the mid-Sixties. All of this musical experience has paid off. The King Biscuit Boy is a harp virtuoso, and there is an uncanny air of authenticity about his blues singing. In addition, Newell respects his feel for the blues. He does not set out to translate his natural inclinations into one of those commercialized superstar energy trips like Joe Cocker's.

"Gooduns" pays tribute to past blues artists and to his contemporaries, with whom he also feels a sense of kinship. Arthur Gunter, Little Walter, Junior Parker, Bo Diddley, Huey Smith, Willie Dixon, Professor Longhair—all feel a sense of kinship. Arthur Gunter, Little Walter, Junior Parker, Bo Diddley, Huey Smith, Willie Dixon, Professor Longhair—all get their just desserts. Newell works over four of his own blues compositions including You Done Tore Your Playhouse Down Again, a ripe tribute to a hard-drinking woman. He creates a Georgia Rag that has an amazing sense of funkiness. Newell's set concludes with Lord Pity Us All, a gospel ballad written by Dr. John.

"Gooduns" is a truly soulful album. To use the vernacular, it's really bad, that's what it is!

*King Biscuit Boy: Gooduns.

Richard Newell (The King Biscuit Boy), vocals, harmonicas, guitars, and slide guitar, instrumental accompaniment. You Done Tore Your Playhouse Down Again; Boom Boom (Out Go the Lights); Georgia Rag; six more. Daffodil SBX 16006, $4.98.

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What Can't We FIND?  

A rock trio—keyboards (piano, organ, synthesizer), guitar, and drums—playing themes from Pictures at an Exhibition in live concert? Anyone who loves the original piano composition or Ravel's familiar orchestral version is liable to respond at best with revulsion, at worst with ulcers. However, considering that Emerson, Lake, and Palmer probably had an unmitigated audience in mind, the idea is rather understandable.  
The music is certainly better than anything the group has come up with on their own. Nutrocker, an adaptation by rock songwriter Kim Fowley of guess what, is, like the Rondo which Keith Emerson used to play as leader of The Nice, a catchy tune. In all, this new LP is, like most rock versions of classical themes, less adaptation than piracy. But when you consider the droll nature of so many "original" rock songs, the Emerson, Lake, and Palmer attempt is not so bad. At least they admitted where the music came from.  

McLean's American Pie became one of the few eight-minute hit records in history. That rather mysterious song, apparently based on the death of McLean's idol, singer Buddy Holly in February 1959, mentions dozens of persons and places in the history of youth culture and rock. It seems a dirge for the alleged death of rock, or something of that nature. McLean refuses to discuss it—a solid PR move, one Dylan has used to advantage for years. The album "American Pie" contains one other up-tempo song, the Holly-esque Everybody Loves Me, Baby. Apart from that, it's all balladry, at times too precious (Sister Fatima and Vincent, the latter about Van Gogh), and continually too one-sounding. McLean has a dynamic ballad style, but he seems rather locked into it. The song American Pie is a true landmark, but the rest of the album doesn't live up to it. M.J.  

Further melancholy evidence of the Decline of the British Empire. The once-great Grenadier Guards Band, recording for the first time under its new director Captain Parkes, seemed to have slipped to the level of a provincial summer-concert ensemble—an unattractive one, at that, and in large part as a consequence of Parkes's own jerkiness and tendency to press. Except for Malcolm Arnold's stirring march dedicated to the Duke of Cambridge, Leroy Anderson's arrangement of the Irish Weddingwoman, and the fine Handelian tune Song of Jupiter, the program ranges from the routine (Brien's Clarinet Cascade, Parkes's White Plume March, Osser's Italian Festival medley) to the dreadful (the bogus Dixieland of Walters' Hootenanny). Even the robust,
Rod Stewart once said publicly, "There'll never be a white artist who can conquer black music." Stewart comes closest to succeeding in battle. His throaty, raspy voice can wrap itself around a song and produce an amazingly soulful sound. His band, Faces, refuses to function as a mere backup unit, and produces instead a great deal of lively, integrated rock. Faces, with Stewart singing lead, is not afraid to be jolly, even though they are loud. They have a great deal of fun doing a perfect rendition of Chuck Berry's "Memphis." Stewart belts out "Stay with Me" and "That's All You Need," two original shouters. The album includes a mellow country song, "Dallas," and a sweet ballad, "Love Lives Here." "A Nod is as Good as a Wink . . . To a Blind Horse" is a thoroughly tasteful collection.

The Faces used to be called the Small Faces. Their infectious blend of rock and rhythm and blues has proved itself capable of producing millions of smiling faces. This album helps to explain why.

CAROLE KING: Music. Carole King, vocals, piano, and celeste; instrumental accompaniment. Some Kind of Wonderful; piano, and celeste; instrumental and vocal accompaniment. Carole King seems to be trying a soft-core soul. For a white woman to attempt soul singing is dangerous. Not blues—a few can do that and Rita Coolidge is one. But soul, not often.

CAROLE KING: Music. Carole King, vocals, piano, and celeste; instrumental and vocal accompaniment. Some Kind of Wonderful; Song of Long Ago, Back to California; Ode SP 77013, $5.98. Music; Song of Long Ago; Back to California; instrumental and vocal accompaniment. Some Kind of Wonderful; piano, and celeste; instrumental and vocal accompaniment.

LAURA NYRO AND LABELLE: Gonna Take a Miracle. Laura Nyro, piano and vocals; Labelle, vocals; instrumental accompaniment. I Met Him on a Sunday; Monkey Time; Dancing in the Street; Spanish Harlem; Jimmy Mack; six more. Columbia KC 30987, $5.98. Tape: NM

LAURA NYRO AND LABELLE: Gonna Take a Miracle. Laura Nyro, piano and vocals; Labelle, vocals; instrumental accompaniment. I Met Him on a Sunday; Monkey Time; Dancing in the Street; Spanish Harlem; Jimmy Mack; six more. Columbia KC 30987, $5.98. Tape: NM

For a white woman to attempt soul singing is dangerous. Not blues—a few can do that and Rita Coolidge is one. But soul, not often. Carole King seems to be trying a soft-core soul. The lyrics sport less clichés than is the rule for soul. But the singing is correspondingly less immediate and driving.

Carole King's "Music" seems to be a soul album for the affluent suburbs. Best is her old hit record, Some Kind of Wonderful, in new version here, and a folky sort of thing called Song of Long Ago, on which she is joined by James Taylor.

Laura Nyro, in "Gonna Take a Miracle," is trying hard-core soul with the aid but not the comfort of Labelle, a black singing trio formerly known as Patti La Belle and the Blue Bells. Nyro has abandoned her singer-songwriter poetical stance in favor of a collection of mostly-horrid, early-Sixties, Top-40 screechers. Why a solid contributor to contemporary music decides to sing the songs that drove millions of listeners from rock a decade ago is undecipherable.

M.J.
A new record by an ex-Beatle always makes one reach for the critical magnifying glass. The recording efforts of Paul and Linda McCartney make this process of critical elaboration seem futile. The McCartneys are determined to make reasonable pop music that is no better or worse than anyone else's. Their music is not "revolutionary"; it is not the product of any specific subculture. It is a conscious effort to achieve a level of highly polished mediocrity which is what most mass culture is all about anyway. McCartney's thinking may appall those who believe that man should always try to achieve greatness; it will infuriate the fans of his former songwriting partner, John Lennon, who has himself attempted to transform the pop song into one of the world's most powerful epistles; it will enrage the solemn-faced critics of popular music who believe that pop is art. It will please no one but the huge public, the public that has already bought—and loved—Paul McCartney's first two post-Beatles albums by the millions.

"Wild Life" puts McCartney's new band, Wings, on display for the very first time. Wings performs seven McCartney-McCartney originals, and also delivers a performance of Love Is Strange in which Paul and Linda amiably take on the roles of Peaches and Herb and almost but not quite succeed. This album revolves around the themes of: Isn't rock fun?, Isn't love grand?, and Isn't John Lennon silly? The rock-as-fun category includes Mumbo, which takes the listener all the way back to the Spencer Davis Group, and Bip Bop which could be a theme song for a rock revival evening. Category two is satisfied by Some People Never Know, Tomorrow, and the Paul and Linda McCartney mutual admiration society number I Am Your Singer. These three range from the trivial to the embarrassing, and the vocal performance by Ms. McCartney on I Am Your Singer should certainly never have been allowed to happen. By now, the Lennon-McCartney feud, carried on in print and in the songs of the two men, is a thorough bore. However, Paul scores points this time round with his title song, Wild Life, a witty parody of Lennon's primal shriekings. Here, McCartney creates a more than intense ecology song about a man strolling through an African park brooding over the fact that most of the animals have been put into zoos. The narrator cautions that since "man is an animal too" he'd better worry about the animals in the zoo. McCartney, not only offers an excellent imitation of the Lennon singing style, but also succeeds admirably in deflating Lennon's social pretensions. In Dear Friend, a mellow, mournful McCartney addresses a series of questions to a friend (I wonder who), and asks him, among other things, if he's a "fool." Wings, with the exception of Ms. McCartney's vocalizing, carried on in print and in the songs of the two men, is a thorough bore. However, Paul scores points this round with his title song. Wild Life, a witty parody of Lennon's primal shriekings. Here, McCartney creates a more than intense ecology song about a man strolling through an African park brooding over the fact that most of the animals have been put into zoos. The narrator cautions that since "man is an animal too" he'd better worry about the animals in the zoo. McCartney, not only offers an excellent imitation of the Lennon singing style, but also succeeds admirably in deflating Lennon's social pretensions. In Dear Friend, a mellow, mournful McCartney addresses a series of questions to a friend (I wonder who), and asks him, among other things, if he's a "fool." Wings, with the exception of Ms. McCartney's vocalizing, seems capable of expressing all of McCartney's carefully limited intentions. Denny Seiwell even has the opportunity to create a series of brilliant percussive effects. The McCartney fans will certainly eat it all up.

"It's your round, John."
Melanie: Gather Me. Melanie, vocals and guitar; vocal and instrumental accompaniment. Little Bit of Me; Brand New Key; Ring the Bell; Tell Me Why; nine more. Neighborhood NRS 47001. $4.98.

Melanie has a sharp, emotion-ridden voice, one that can make a good song magnificent or a mediocre one tolerable. On her new album, the material is largely mediocre, consequently the end product is tolerable—decent but not equal to her last LP, "The Good Book," released on the Buddah label. On "Gather Me" the lyrics are inconclusive. She seems to have something to say, but seldom makes it clear just what it is. Melanie's voice is so effective, however, that the album works when no attention is paid to such details as lyrics. As background music, as a mood-setter, it's fine.

J.S.W.

**JAZZ**

"THEY ALL PLAYED MAPLE LEAF RAG."


This is an oddity that, at first glance, would seem to be for Maple Leaf Rag nuts. It is a collection of fifteen versions of Scott Joplin's classic rag, ranging from Vess Ossman's 1907 recording with Prince's Band to big-band performances by Tommy Dorsey and Earl Hines. But there is an amazing amount of variety and jazz history in the set—an example of W. C. Handy's orchestra in 1917 playing a variation on Maple Leaf called Fuzzy Wuzzy Rag. Jelly Roll Morton's explanation of how rags were played in St. Louis and New Orleans (or Jelly Roll) styles. James P. Johnson's hammer-and-tongs approach to the tune, the chance for close comparison of such pianists as Willie the Lion Smith, Willie Eckstein, Hank Duncan, Paul Lingle, and Ralph Sutton, each of whom has his own distinctive conception. Not to mention Sidney Bechet, whose 1932 recording of Maple Leaf Rag with his New Orleans Feerwarmers once seemed a wild-eyed fantasy—until one listens to Handy's version of fifteen years earlier and finds that Bechet was simply following and extending precedent. Great fun.

J.S.W.

**MARY LOU WILLIAMS: FROM THE HEART.**

Mary Lou Williams, piano. Cloudy. The Scarlet Creeper. Blues for John; eight more. Chiaroscuro 103. $4.98 (Chiaroscuro Records, 15 Charles St., New York, N.Y. 10014.)

Mary Lou Williams, like Erroll Garner, has the ability to make a solo piano sound like a full orchestra. Although Miss Williams' method is different from Garner's Garner usually accomplishes this effect through his lush, splashy Hollywood extravaganzas bits. Miss Williams, on the other hand, just digs in with two hands and swings with a rugged, swaggering attack and a sure sense of broad harmonic structure. On this disc she covers more than forty years of her very productive career: from her early days with Andy Kirk's orchestra (Night Life and Little Joe From Chicago) through her period as one of the most effective composer/arrangers in the Swing Era (What's Your Story Mornin' Glory?), then into the deep and influential religious feelings that have shaped her life for the past twenty years and on to the contemporary Mary Lou who, as always, is just a step ahead of most other pianists but still motivated by the strong, swinging urge that characterized her earliest work.

Like Duke Ellington, Miss Williams has never been content to let her work stand still. So these new versions of her older tunes have a fresh interest without losing their original charm even when the rhythmic motivation is changed as radically as it is on Scratchin' in the Grave, once a guity little swinger but now a gently reflective ad-lib piece. There's no choosing between the two treatments: They're both right. And it is this ability to find so many viable facets in any given piece of music that makes every Mary Lou Williams performance a rewarding adventure.

J.S.W.

**STAN GETZ: DYNASTY.**

Stan Getz, tenor saxophone, Eddy Louiss. organ: Rene Thomas, guitar; Bernard Lubat, drums. Ballad for Leo; Our Kind of Sabi; Rouge for Leo; Kind of a Bass Thing; Mr. Bohemian; Three; Peace for Leo; With a Woman; Getz Fantasy (What's Your Start, Mornin' Glory?), then into the dynamic period. Getz has now developed a uniquely distinctive sound firmly based on his thinness and on to the contemporary Mary Lou who, as always, is just a step ahead of most other pianists but still motivated by the strong, swinging urge that characterized her earliest work.

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J.S.W.

APRIL 1972
point, seems to be going through a remarkable period of mature growth.

The set is also notable for the consistently brilliant work of René Thomas, a guitarist who uses his instrument with much the same swinging subtlety that Red Norvo uses on vibes. Louis and Lubat provide Getz and Thomas with capable support although Louis tends to stretch his solos well beyond his ability to sustain them. J.S.W.

drama and film

SACCO AND VANZETTI. Music by Ennio Morricone from the original motion picture soundtrack recording. Joan Baez, vocal. RCA LSP 4612, $5.98.

The soundtrack music for Giuliano Montaldo's film account of the notorious Sacco and Vanzetti case should amply prove why Ennio Morricone has become one of the most sought-after film composers today, particularly in Europe. Although Morricone came into fame by composing the music for several of the recent Italian-made Westerns (A Fistful of Dollars, etc.), his best writing, in my opinion, has turned up in the taut and moody scores for such films as The Sicilian Clan, Investigation of a Citizen Above Suspicion, and Sans mobile apparent.

But Sacco and Vanzetti features, in addition to one of Morricone's best and most appropriate scores yet, a chilling vocal performance by Joan Baez in the difficult Ballad of Sacco and Vanzetti, that has to represent a high point in her career. Not only does she sing this ballad (to her own words) with total conviction, but her stately and perfect control of her voice here simply cannot be matched. Miss Baez is likewise convincing in the Here's to You song, although here she is somewhat betrayed by her less fortunate lyrics ("Your agony is your tri-UMPH"). The nonvocal numbers by Morricone, who seems indebted to such diverse composers as Bach and Bernard Herrmann, admirably capture the poignancy and tension that alternately pervade the entire film. Only the unnecessary electronic sound used in the "Electric Chair" cut (which does not last quite this long in the film) slightly mars a record that contains my nomination for the best film score of 1971. R.S.B.

TWO GENTLEMEN OF VERONA. Original Broadway cast recording. Music by Galt MacDermot; lyrics by John Guare. For a feature review of this recording, see page 74.

TO LIVE ANOTHER SUMMER/TO PASS ANOTHER WINTER. Original Broadway Cast Recording. Lyrics by John Kander and Fred Ebb; music by John Kander. The set is also notable for the consistently brilliant work of René Thomas, a guitarist who uses his instrument with much the same swinging subtlety that Red Norvo uses on vibes. Louis and Lubat provide Getz and Thomas with capable support although Louis tends to stretch his solos well beyond his ability to sustain them. J.S.W.

To Live Another Summer/To Pass Another Winter" is the surprise Broadway hit from Israel. The evening, conducted by thirty-three young Israelis, is an attempt to introduce its
audiences to the history, values, and attitudes of Israel. Nineteen songs are included in the performance, and these songs are the cornerstone of the evening. They are mainly up-tempo folk-rock numbers even though some of them pretend to be the work of Jacques Brel and fail at the masquerade. Those which are most successful celebrate the vitality and spirit of the Israelis. The title song is a peppe anthem to survival as is Better Days, another catchy tune. I'm Alive lives up to its title, and will probably be the song that is remembered with the most affection after the show closes. It is a chorus number led by Rivka Raz, a young woman with a powerful voice who also does full justice to The Grave of Eucalyptus, an evocative ballad about the unchanging beauties of the Israeli terrain.

Occasionally, flashes of mordant wit appear in the score. For example, Sorry We Won't It, a number led by the company's comic highlight, Ilorilzik, explores the world's attitude toward the Israeli recent victories at war. Gori-lzik sings: "We're sorry we won it./We must have overdone it./We know quite well that the Jew has his place./A Jew who is a winner is a disgrace!"

It is unfortunate that this sense of objectivity is not reflected in the evening's serious moments. Here sentiment predominates, and the songs reach for cheap effects. The Bay With a Paddle is a love story about a child who was forced to play his violin while he was being put to death in a Polish extermination camp. It fails to stir because it is so heavy-handed.

Still, there is enough joy and melody in this two-record set to merit a listen. By the time you reach the finale, you can hardly help yourself: To Live Another Summer/To Pass Another Winter makes you want to clap your hands in time to the music.

Bless the Beasts and Children. Music from the film composed by Perry Botkin, Jr., and Barry De Vorzon. The Carpenters, Renee Armand, and Barry De Vorzon. vocals. A & M 4322, $5.98; 1 CS 4322, $6.95. Tape: 8T 4322, $6.95, 8C CS 4322, $6.95.

For several years, composer-arranger Perry Botkin, Jr., has kept a large group of studio musicians working almost constantly as he moves from one project to another: albums, TV, commercials, motion pictures, or whatever. Botkin is flexible and always in motion, moving from one project to another: albums, musicians working almost constantly as he has overdone it./We know quite well that the Jew has his place./A Jew who is a winner is a disgrace!"

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For instance, the promo material that accompanied this album was three pages devoted exclusively to film producer Stanley Kramer, his credits, his quotes, and the controversy "raged" over this film. There was nothing about the album.

The best things that happened to Bless the Beasts and Children were that Perry Botkin, Jr., and Barry De Vorzon did the music and that its title tune was recorded by the Carpenters. Botkin's score is simple and fitting, sticking close to its title track and becoming a theme-and-variations score. The Carpenters' version of the pretty title tune is expectably well done.

The album also serves to introduce a beautiful new singer named Renee Armand, who sings a track called Lost. Its lyric sounds hastily written but the vocal is excellent. It was so
Billy Joel: Cold Spring Harbor. Family Productions FPS 2700, $4.98

An engaging set delivered by a fresh new talent who possesses one of the highest-pitched rock voices rock has had in quite some time.

Detroit with Mitch Ryder: Detroit. Paramount PAS 6610, $4.98

This group's music is Chuck Berry poured through the high-energy, high-volume rock scene that has existed around Detroit for several years. Their LP is the best example of Detroit high-energy rock since the MC5 "Kick Out the Jams" album of three years ago. Best, logically, are the up-tempo songs, like Long Neck Goose or Let It Rock. However, Ryder's indulgence in blues or Wilson Pickett's (I Found a Love) is not to be ignored. At times, this band is awesome.

David Bowie: Hunky Dory. RCA LSP 4623, $5.98. Tape: P8S 1850, $6.95; PK 1850, $6.95

David Bowie's new set of musical cryptograms seems almost impossible to decode. Nevertheless, Bowie is a performer of remarkable intensity, and his work is always compelling. For good measure, Bowie even includes in this new album an effervescent performance of the Rose-Williams gem Fill Your Heart. Now, there's a song I understand!

Bobby Short: Loves Cole Porter. Atlantic SD 2 606, $9.96 (two discs)

Twenty-two lesser-known Cole Porter songs (including three unpublished numbers) delivered with both respect and affection by Bobby Short. Lesser-known Porter is better than better known anyway else, and Short is one of the few performers left who still functions in the cafe-society world that Porter immortalized. Need anything else be said?

Elton John: Empty Sky. D.JM DJLPS 403, $4.98

Elton John's first album, released belatedly in this country, contains rock that's more traditional than John is now known for. There is also some undeveloped lyric writing by Bernie Taupin, and John's voice seems a bit deeper than the one he used. Quite a difference!

Marc Benno: Minnows. A&M SP 4303, $5.98

Moderately light rock with blues and rockabilly influences, and good use made of the Leon Russell Singers: Rita Coolidge, Clyde King, and Venetta Fields.

in brief

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Moderately light rock with blues and rockabilly influences, and good use made of the Leon Russell Singers: Rita Coolidge, Clyde King, and Venetta Fields.
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Don't Shoot the Piano Player! Save your fire for his computer-minded tape editor who is so obsessed by the convenience and economy of equal-length cassette sides that he's willing to chop musical entities into bleeding chunks to achieve his arbitrary objective. Not less than three current releases, all starring Van Cliburn, suffer from such butchery—and while Cliburn may not be my ideal pianist, I have too much respect for his great skill and bravura command of the "grand manner" to let his victimization pass uncondemned. In his set of Beethoven's Moonlight, Pathétique, and Appassionata Sonatas (RCA Red Seal RK 1200, $6.95), the side break does not logically occur between the second and third movements of the Pathétique (as in the disc edition). Instead, only the first fifty-three seconds of the third movement rounds out Side 1 with a disconcerting interruption of musical continuity. There's an even more jarring break in the Rachmaninoff Rhapsody on a Theme of Paganini, coupled with the Liszt Second Concerto in performances with the Philadelphia under Ormandy (RCA Red Seal RK 1199, $6.95). Each work is complete on its own side in the disc edition, but the cassette Side 1 follows the end of the Liszt with the first 1:37 minutes of the Rachmaninoff, irrationally halting the musical flow until the cassette can be turned over or reversed. And in "My Favorite Concertos" (RCA Red Seal RK 1201, $6.95), an anthology of excerpts from earlier releases plus Variation 18 of the new Rachmaninoff Rhapsody, it's the finale of the Rachmaninoff Second Concerto that's edited with a cleaver, leaving the last 2:05 minutes for Side 2—again a break unthinkable in a disc edition.

In the corresponding 8-track cartridge editions (RBS 1200, 1199, 1201, $6.95 each), there are other musically irrational breaks, but these, well-nigh impossible to avoid in the endless-loop format, have come to be reluctantly accepted in carborne audition. But why should musicassette listeners play the roles of poor stepbrothers and stepsisters to discophiles? I've complained bitterly on several occasions, once (March 1970) ascribing such barbaric editing practices to penny-pinching on tape costs. That drew a long and eloquent manufacturer's reply, citing the various problems (other than economy) that are indeed involved, and defending the side-break choices as the "least objectionable" in each particular case. I wasn't convinced then, and I'm less so now, that a manufacturer's notion of the "best possible" corresponds even remotely with that of a music lover. In the present instances, Cliburn's effective performances and RCA's first-rate recordings certainly are done rank injustice.

Dr. Dolby's Panacea can't cure the victims of tape-editing surgery, of course, but it can make a world of difference to listeners unable to filter out mentally the considerable surface noise still characteristic of un-Dolbyized cassettes. Such benefits, even in a program of often very loud piano music, are notable in one of the most successful to date in Columbia's new series of Dolbyized cassettes: Philippe Entremont's four Chopin scherzos (Columbia MT 30945; also MA 30945, 8-track cartridge; $6.98 each). Perhaps it's just as well that I no longer have the acclaimed Rubinstein/RCA taping of these superb large-scale works for direct comparisons, but if young Entremont is more objective and less poetically eloquent than his elder colleague (as my memory suggests), he surely is no less dramatically exciting; and above all he benefits by a whole decade's technological progress. This is one of the most strikingly brilliant and sonically solid examples of piano reproduction I know; furthermore, the instrument has been captured in a warm, open acoustical ambience and modulated at a level high enough to make the Dolby-B noise reduction optimally effective at normal playback levels.

H. M. S. Flotsam & Jetsam. In the past I've criticized some Ampex-processed cassettes for not exploiting the full potentials of Dolbyization, so now it's a pleasure to hail what probably is the best example of Dolby-B technology I've yet encountered: the new D'Oyly Carte Company's Gilbert & Sullivan H.M.S. Pinafore (London/Ampex 9 4066, double-play cassette, $9.95, libretto presumably available on request; also K 75066, double-play 7½-ips reel, $11.95, libretto included). Yet immaculately quiet surfaces are not the only technical attraction here. London's Phase-4 engineering achieves overpoweringly vivid presence along with unambiguous sound-source differentiation and movement. Such sonic lucidity, combined with the entire cast's clarity of enunciation in both song and speech (for the dialogue is included), actually makes following the libretto quite unnecessary. And for extra measure—whether good or bad will depend on individual tastes—there is extensive, indeed almost continuous, use of sound effects: ship timbers and ropes creaking, waves lapping, and above all gulls crying. London must have brought out of retirement and given carte blanche to the seabird-obsessed soundman whose embellishments of Frank Chacksfield's "Ebb Tide," years ago, made it an international bestseller.

Alas, it's necessary to warn that this audiophile's delight is likely to be a vet's G & S buff's nightmare. Even if he doesn't feel outstripped in an assault by the sound effects, he's sure to be shocked by what will seem to him the deterioration in the D'Oyly Carte Company's executant qualities. Younger listeners may not be bothered at all by some lack of tonal refinement in the Royal Philharmonic's playing or the frequent jerky vehemence of conductor James Walker; but even they may find it hard to take the bleatiest of British tenors and most tremulous of British sopranos in the romantic lead roles, or a formidable female baritone as the not-so-Little Buttercup. John Reed's Sir Joseph Porter is at least deftly professional, and the rather small chorus sings with fine gusto, but for the most part the singing and amply sufficient to delight some contemporary listeners as sheer camp. In more than one respect, then, this is something that indeed has to be heard to be believed.

Reserve Scotch; Bar Slivovitz. One of the most prized jewels of many open-reel collections is Peter Maag's delectable combination of the Mendelssohn Hebrides Overture and Scotch Symphony in a decade-old London taping (L 80083) that I'm delighted to find still remains in print in the 232-page 1972 Ampex stereo tapes catalogue. Incomparable in the strictest sense, this masterpiece is at last outstripped in quality, transparency and atmospheric effectiveness, if certainly not in interpretative sensitivity, by Herbert von Karajan's coupling of the same works in enchantingly colored Berlin Philharmonic performances and Deutsche Grammophon's finest engineering (DGG 3300) 181 cassette; 89 432 8-track cartridge; $6.98 each; also DGG/Ampex L 3126 7½-ips reel, $7.95). The usual Von Karajan mannerisms are entirely absent, and if he isn't quite as lyrically poetic as Maag, he has the advantage of utterly bewitching sound. The cassette edition (the only one I've heard so far) has exceptionally quiet surfaces for non-Dolby-B processing, but perfectionists undoubtedly will be satisfied by nothing less than the open-reel edition.
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