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Reliability: The kind that comes from engineering refinements, and use of the latest in proved componentry. (Such as Ceramic IF FM solid-state microcircuits, and FET circuitry.)

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The S7244’s SQ and Logic Integrated Circuits do full justice to the realism of quadraphonic sound. Without obsoleting your present equipment,

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So now, the big question: How much is all this double-edged pleasure going to cost you? Just $499.95. Including the case. (Remote control unit pictured in overleaf is optional and extra.)

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It is rare that a revolution succeeds in combining the best of two worlds. So it shouldn’t surprise you that Sherwood’s S7244 Stereoquad Receiver is a truly singular piece of equipment.

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The 960 is identical except for these two features. About $150.
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**EDITORIALLY SPEAKING**

By WILLIAM ANDERSON

**CONCERT-HALL SURREALISM**

One of the interesting little ironies of our musical lives is that the subject of "concert-hall realism," always a hot topic among those who take their reproduced music seriously, is just as central a concern of those who actually produce music in our concert halls. Exactly paralleling the home listener's preoccupation with room size and shape, speaker placement, high-frequency beaming, sound reflections, standing waves, and all the rest, symphony-orchestra managers, conductors, and the players themselves worry a lot about reverberation times, the placement of the orchestra in the hall (and of the players within the orchestra), and particularly materials—those used for walls, ceiling, floor, and even seating. This is certainly understandable, for if it can be said that the individual orchestra members play their separate instruments and that the conductor "plays" the orchestra, then what the two together play is the acoustical "space" of the concert hall. And little wonder, too, that this interest in hall acoustics reaches a panic level whenever a new concert hall is to be constructed: they are very expensive, and, sad to say, several comparatively recent efforts have been resounding (!) flops. Let it be said immediately that the new $13.5 million home of the Minnesota Orchestra in Minneapolis is not one of them; it may, indeed, find itself numbered in the select company of the world's great music halls. My judgment is based on hearing the orchestra in the program dedicating the hall last October 21—the heady mixture of relief and pride evident in the audience after the concert was almost palpable.

The hall's interior is quite strikingly original: bare wood on walls, floor, and backs of seating (deep-rose upholstery), with plaster on the balcony fronts. The ceiling is plaster too, an ice-blue background out of which protrude enormous white cubes and other polygons that sweep across the ceiling and down the back wall behind the orchestra (there is no proscenium). It is a little like being on the inside of an optical illusion looking out, but the eye will doubtless see it as an old hat in time—and besides, acoustically it works. Access areas, unfortunately, are less successful—they tend to cluster on the stairs, and cramped space, below street level, from which several stairways tempt movement to levels above. But crowds do not tempt easily—they tend to cluster on the stairs, and promenading, an important part of concert-going, is therefore frustrated. The lobby's raw primary colors make it all too clear why we usually dress the skeletons of our buildings in wood, plaster, and stone: metal girders, heating and air-conditioning ducts, electrical lines, and the backsides of stairways are ugly. Finally, the lighting fixtures—swan's necks supporting oversized, ruffle-edged reflectors—will remind many a Minnesota farm boy (they did this one) of those bare-bulb moth collectors that used to illumine midwestern barnyards. But never mind; all this affects the impression that the builders ran out of space and money at about the same time.

Crowd handling is a problem: the orchestra-level audience is debouched into a rather cramped space, below street level, from which several stairways tempt movement to levels above. But crowds do not tempt easily—they tend to cluster on the stairs, and promenading, an important part of concert-going, is therefore frustrated. The lobby's raw primary colors make it all too clear why we usually dress the skeletons of our buildings in wood, plaster, and stone: metal girders, heating and air-conditioning ducts, electrical lines, and the backsides of stairways are ugly. Finally, the lighting fixtures—swan's necks supporting oversized, ruffle-edged reflectors—will remind many a Minnesota farm boy (they did this one) of those bare-bulb moth collectors that used to illumine midwestern barnyards. But never mind; all this affects the sound of the hall not a whit.

The music on the inaugural program (Star-Spangled Banner, the Bach Toccata and Fugue in D Minor in a new realization by the orchestra's conductor Stanislav Scrowaczewski, Ives' Decoration Day, Stravinsky's 1919 Firebird Suite, and the Beethoven Fifth) was a good test for the hall—and catnip for conductor and players. They were like kids let loose in a toy store, almost drunk with the sound they were making. Eugene Ormandy, conductor in Minneapolis briefly in the early Thirties, once observed that the acoustical problems of the orchestra's former home, the enormous Northrup Memorial Auditorium on the University of Minnesota campus, might best be solved with dynamite. Those problems have now taken another form, for the orchestra will have to learn to play all over again, adjusting almost unconscious muscular and aural responses trained at Northrup to the acoustical surroundings of the new house. When they do, we may all get a chance to hear the results: a recording contract is presently being negotiated with Vox.
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*Fair Trade resale price where applicable.
Webern's masterpieces. Surely this is too much to bear; certainly they are among these two works for string quartet are almost (October), I was intrigued by his comment.

Vivisecting Ives
- Hats off, gentlemen, a Villain: I speak of that multi-mike philosopher/engineer whose god is clarity of texture and whose heresy is verisimilitude. The new Ives Fourth proves he is very much with us.

While David Hall goes into raptures in his “Two New Symphonies by Charles Ives” (November) over the Scherzo coming through like a “jolt of LSD” and lauds the multiple layers of sound “audible for the first time.” I can only lament the passing of recording’s goal to reproduce faithfully the sound of a good performance in a good hall. The Serebrier endeavor on RCA is a voxvisionist’s dream, resembling nothing I have ever heard or could ever hear in a concert auditorium, for which it must be assumed a piece composed in 1916 was intended. A concert hall does not blunt at you from behind like a demented schizoid, nor does anything short of a mattress warehouse clarify as many strands of sound as I find on this disc.

One must conclude either that Ives was a terrible orchestrator and didn’t know where to place his instruments (which I don’t believe for a moment), or that all those notes weren’t intended to be heard except as part of a blend of the concert sound. That I’ll buy. Hell, I’ll even go out on a limb: bet you Ives never heard of surround quadraphonics!

Steven W. Kruger
New York, N.Y.

Masterpieces
- On reading Eric Salzman’s critique of Webern’s Five Movements for String Quartet (October), I was intrigued by his comment that “The density and intense expression of these two works for string quartet are almost too much to bear; certainly they are among Webern’s masterpieces.” Surely this is an inadvertent non sequitur: the opinion that something is “almost too much to bear” could hardly have any bearing on whether a composition is a masterpiece. Actually, the two thoughts might be considered to be mutually exclusive. In normal context, one might conclude that something hard to take would be a failure rather than an artistic triumph.

What is a masterpiece? What is good music? Great music? After considerable thought, I have concluded that good music is music that after the passage of twenty-five or fifty years is still widely played and enjoyed by informed music lovers at large. Music that passes this test after a hundred years could be considered great music. (Note that I have bypassed the opinions of critics and musicologists, who, in my opinion, speak only for themselves.)

Alexander Mark
Royal Oak, Mich.

Woofgang Simels
- Every time I open my Stereo Review to the Simels Report, I think: I’ve grabbed a copy of the Journal of the A. K. C. by mistake. The picture at the top of the column bears a startlingly close resemblance to my cocker spaniel, Wolfgang.

P. J. Ascheri
Sheffield Lake, Ohio

- I have one thing to say about the reviews of Steve Simels. When a man can put down a great artist like Harry Nilsson as Mr. Simels did in your November issue, and in the same issue praise the efforts of Alice Cooper, it becomes obvious that he has little knowledge and absolutely no appreciation of real musical talent.

Les Bueckert
Prineville, Ore.

Mr. Simels replies: Woof!

Maud Powell
- I have just read Irving Kolodin’s November column concerning Maud Powell. The picture of Miss Powell is excellent, having been taken in her younger years; however, the review does not do her justice.

Miss Powell, who in later life married her manager Goodyear Turner, was a Victor recording artist of the highest rank. In the 1925 edition of Victor Records she had thirty-six recordings listed. She introduced to American audiences many of the better-known concertos of the present day. Her technique was impeccable, and she played with the strength and tone of a man. I do not think it wrong to classify her as the forerunner of the present women’s liberation movement, since she stood alone in what at the time was considered a man’s world.

Her recordings are collectors’ items, but I have been fortunate enough to have heard some of them: Schubert’s The Bee (Victor record No. 810); Vieuxtemps’ Polonaise, Op.

Stereo Review Indexed
- With reference to Frank Gores’ letter (November 1974 issue) on indexes to Stereo Review, I find that you are also indexed in the following places:

- Popular (that is, non-classical) records: Annual Index to Popular Music Record Reviews (Scarecrow Press)
- Classical records: Record and Tape Index (Scarecrow): Music Library Association, Notes
- All records: Multi-Media Reviews Index (Pierian Press)
- Musical articles: Consumers Index (Pierian Press)
- Popular music articles: Popular Music Periodicals Index (Scarecrow Press)
- All music articles: Music Index
- Book reviews: Popular Music Periodicals Index (Scarecrow); Book Review Index (Gale)

Quite comprehensive!

Dean Tudor
Chairman, Librarte Arts Dept., Ryerson Polytechnical Institute
Toronto, Ontario, Canada

Impressed with his (comprehensive) industry, we — and our readers — thank Mr. Tudor.

Latin Echoes
- As an aficionado of Latin music, I’m especially pleased with the frequent (and increasing?) coverage the field is getting in Stereo Review with such articles as “La Onda Latina” in October and “The Pupil of Teté Machado” in November. I’m glad your magazine has a Managing Editor who digs Latin music enough to work it in and make more readers aware of it.

I don’t know if there’s any kind of “growing trend” toward Latin music’s popularity among U.S. and non-Spanish audiences; I’d like (Continued on page 12)
Choose one of these critically-acclaimed concert albums for up to 75% off!

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there to be. There is surely a growing awareness of it, though, and if that growth continues, it will be due in large part to efforts such as yours.

GEORGE DEAN
Chicago, Ill.

Your Managing Editor goes to a night spot and gets sexed up by a human animal that exists on the rip-off of moral decadence. "Pupil of Tete Machado," (November). What does this have to do with the fine art of musical enjoyment, to which your magazine is pointed?

RAY GIEBEL
Arvada, Colo.

One wag has suggested that it might help to think of Tete as Bizet's Carmen and the Red Feather as Lillas Pastia's establishment!

I just wanted you to know how much I enjoyed the story on Tete Machado. It was, I thought, a delightful piece about someone I have never seen or heard about but whom I would like to see after reading the story.

HENRY BRIEF
New York, N.Y.

Ormandy's Salad Days

Following Roy Hemmings's reply to Bruce Adams' letter (October), James Goodfriend's tag presented a fact unknown to many of the most devout Ormandy-philics. Mr. Ormandy did, indeed, visit recording studios on several occasions prior to his association with the Minneapolis Symphony. The record label shown in the letters column is from one of an apparent series of Okeh records from the late 1920's featuring "Dr. Eugene Ormandy's Salon Orchestra. This ensemble would not to be a pickup group, as the instrumentation on the seven sides of the series varies considerably. Prominent in each, however, is a violin, which may well have been played by Ormandy himself.

It was, in fact, as a violinist that Eugene Ormandy made his recording debut on the Cameo label. The earliest of these discs known to me is an acoustically recorded performance of The Prisoner's Song (Guy Massey) and Home, Sweet Home (Cameo 889) with harp accompaniment, dating from 1923. Both (arranged by Mr. Ormandy?) are presented in theme-and-variation form, the variations on the first tune a howl in their complexity, but played with exceptional technical skill and undoubtedly performed in all seriousness.

Two somewhat more engaging titles appealed two years later, Drigo's Valse Bluette and Canzonetta of D'Ambrosio (Cameo 1159). Doubtless there were other recordings for the same company. On both the Cameo and Okeh labels, the artist is consistently billed as Dr. Eugene Ormandy (the accompanist on the second Cameo disc is, by the way, "Dr. Axt"). the "Doctor" probably added as a "touch of class," rather than as precognition of the honorary music doctorate he was later to receive from the University of Pennsylvania.

Following a performance by the Philadelphia Orchestra in lthaca some fifteen years ago, I visited Mr. Ormandy backstage, bringing as a companion his Cameo record of The Prisoner's Song. I had the very distinct impression that seeing this vintage disc did not give him great pleasure. He mentioned having done the recording with a Strad violin, an instrument with a violin body and a horn attached to the back and used in the pre-electric days of record making for greater amplification. He also added, "Now you know why I became a conductor!" -- unnecessary but nonetheless delightful modesty from a gifted Hubay pupil.

LARRY HOLDRIDGE
Amityville, N.Y.

Schoenberg in New England

It was with great pleasure that I read Richard Freed's article (October 1974) on how Vienna is finally recognizing Arnold Schoenberg by, among other things, making a museum of his home.

On a much smaller scale, I had a part in commemorating Arnold Schoenberg's first home in America, Schoenberg lived at Plymouth Hall in Brookline, Massachusetts, while teaching at the Malkin Conservatory of Music in Boston from November 1933 until May 1934. Due to the harsh New England winter, he very quickly decided to move and live permanently in California. At a commemoration ceremony in December of 1973, the following plaque was placed on the door of his apartment:

**In 1933 THIS APARTMENT WAS THE FIRST AMERICAN HOME OF THE VIENNESE COMPOSER ARNOLD SCHONBERG**

We were all pleased to have Schoenberg's brother-in-law, the great musician Rudolph Kolisch, present (in the photo showing next to the door on which the plaque has been affixed).

STEPHEN C. ADAMSON
Stoughton, Mass.

More Haydn Symphonies

I read with interest Irving Kolodin's excellent article on Haydn's 104 symphonies (September), and, although I do appreciate Antal Dorati's beautiful set of the Haydn symphonies, I hardly think it is fair to pass over the Musical Heritage Society's set of the same symphonies as lightly as Mr. Kolodin does. Conductor Ernst Maerzendorfer seems to have a real sense of Haydn style which is in no way inferior to Dorati's. Maerzendorfer's orchestra, the Vienna Chamber Orchestra, plays with a joy and élan that is quite irresistible. Furthermore, each record is available separately, which certainly is of some importance, even if they are somewhat higher priced than the London records.

ARNE TINGSTRÖM
Stocksund, Sweden

Presbycusis

I would like to comment on the effect loud music has on the hearing levels of listeners. Although I am no expert in this field, I have studied the science of audiology for one and one-half years. Audiology as a field was born out of the necessity for the care and rehabilitation of the overwhelming numbers of service personnel who suffered hearing losses owing to exposure to intense noise in World War II.

To begin with, continued exposure to intense noise can and does create hearing loss. But the problem is that individuals vary in the susceptibility of their ears to damage from such exposure. Factors such as length of exposure, intensity of the noise, and the frequency bandwidth of the noise affect various hearing loss.

(Continued on page 14)
BEFORE WE MADE THE NEW YAMAHA RECEIVER,
WE MADE THE ORCHESTRA.

The new Yamaha receiver and other stereo components emerged from a unique eighty-year involvement in music and sound. Years ago Yamaha established new standards in wind instrument precision, piano sound, guitar craftsmanship, organ electronic technology. Our engineers didn’t just sit down and create those standards—they evolved them, and the same is true in their latest audio achievements.

To reach their goal of maximum truthful reproduction, they had Yamaha’s three-quarters of a century sound experience to draw from.

And they developed new technology to match and exceed the kind of quality performance (low distortion) usually found on “separates” at the highest price levels.

A New Engineering.

They developed a new kind of engineering philosophy, too. Because they conceived this quality standard not for just the highest priced Yamaha components, but for the whole line!

The result is low distortion performance, typically at .08%, available to receiver and amplifier buyers in all competitive price ranges.

Compare the specs on the new Yamaha components to any of their competition.

But don’t stop there—compare them to your idea of an ultimate component selling for any price.

We’re confident of the outcome.

The Powerful Truth.

The new Yamaha CR-800 receiver, for example, packs a powerful 45 watts per channel RMS (both channels driven, 8 ohms, 20-20 kHz) to give you the full force of a big crescendo, or full audibility of a delicate piccolo solo.

Sophisticated Tuner.

The CR-800’s FM tuner section is the first to utilize negative feedback around the multiplex demodulator. This achieves superb separation (45 dB) and reduces MPX distortion to 0.05%. And Yamaha Auto Touch tuning allows the electronics to fine tune the station for minimum distortion (and keeps it there).

Ten position control.

Loudness control takes speaker efficiency, room acoustics, and other factors into consideration, to give you the tonal balance of lows, middles, and highs you like at all volume levels.

Multiples and Mixes.

For the multiple tape deck owner, the 800 has a five-position tape monitor selector to easily control two stereo tape record/playback circuits for recording on one or both decks simultaneously, for copying from one recorder to another, or for reproducing or monitoring on either.

Other features include a separate microphone preamp and volume control, a two-position low filter (20 Hz-70 Hz) and a two-position high filter (8 kHz-blend). And LED’s for critical indications.

Homemade Philosophy.

The 800 fully incorporates all the years of electronics technology, metal working, machining and wood working pioneered by Yamaha in the music field.

Most of the various parts of Yamaha stereo equipment are made by Yamaha, in our own facilities, for stronger quality control.

And like Yamaha music products, Yamaha components are covered by an unusually long warranty—5 year parts, 3 year labor—and a national service and dealer network.

Audition the Yamaha CR-800, and all our new components, at your nearby Yamaha dealer.
It takes guts to offer a 5-year warranty. Good guts.

Every Jensen high fidelity speaker comes with a 5-year warranty. It's the best in the business — an unconditional, 5-year warranty. And Jensen has the guts to give it to you. Good guts, as in our Models 4, 6 and 3, that have woofers with heavy magnets and Flexair® suspension for exceptionally clear sound. Or guts like our Sonodome® ultra-tweeters which respond well beyond audible ranges. Or, our mid-range elements with tuned isolation chambers to eliminate distortion. And special computer-designed crossover networks for optimum tonal blend. It's everything you need for excellence in speaker systems. It's the good guts inside Jensen.

REX HAWORTH
Albuquerque, N.M.

PUBLISHER'S NOTICE: Recent fluctuations in the value of the dollar will have an effect on the price of merchandise imported into this country. So please be aware that the prices quoted in this issue may be subject to change.
The traceAbility of Pickering's cartridges makes possible...

The best of both worlds

For the World of STEREO AND MATRIX — XV-15 SERIES

At the top of the XV-15 Series of 8 fine cartridges is the 1200E, the furthest advance achievable today — and perhaps in the foreseeable future — in stereo cartridge design and performance. Its exceptional ability to pick up all the material recorded at the lightest possible tracking forces plus its tracing ability at high frequencies make it totally unique. And all of Pickering's exhaustive testing shows that the 1200E is superior in the flatness of its frequency response and channel separation in comparison to competitive cartridges.

For the World of DISCRETE 4-CHANNEL — UV-15 SERIES

The discrete 4-channel system requires completely new cartridges that could not only faithfully reproduce the 20 Hz to 20 kHz AM signals, but also the 30 kHz FM modulated signals. This requires exceptional ability to trace high frequency signals. The UV-15 Series cartridges perform in a superior manner by every test, and are capable of satisfying all technical and aesthetic requirements for playback of both discrete and stereo discs. Moreover, the stylus on UV-15 cartridges is designed to reduce record wear.

For further information write to Pickering Co. Inc., Dept. SR, 101 Sunnyside Blvd., Plainview, New York 11803

The Best of Both Worlds...

CIRCLE NO. 41 ON READER SERVICE CARD
Pilot 540 AM/Stereo FM Receiver

- Among Pilot's latest products is the Model 540 stereo receiver with a rated power output of 40 watts per channel from 20 to 20,000 Hz when both channels are driven into 8 ohms. Harmonic distortion is 0.3 per cent and intermodulation distortion is 0.5 per cent, both at rated output. Frequency response is 20 to 20,000 Hz ±1 dB, and signal-to-noise ratios are 75 dB (high-level inputs) and 65 dB (phono inputs).

On FM, the 540's IHF sensitivity is 1.8 microvolts, with a capture ratio of 1.5 dB and 65-dB alternate-channel selectivity. Image and i.f. rejection are 80 and 90 dB, respectively; spurious-response rejection is 90 dB. Harmonic distortion at full modulation is 0.4 per cent, and 0.5 per cent in stereo, with an ultimate signal-to-noise ratio of 65 dB. Stereo separation is 40 dB at 400 Hz.

The Pilot 540 has knobs for input selection, volume, balance, and bass and treble. The tone controls are separate for each channel and are concentrically mounted. Two phono inputs are provided, plus a front-panel input for microphone and front-panel jacks for stereo headphones and tape dubbing. Pushbuttons introduce such functions as tape monitoring, high-cut filter (−12 dB at 10,000 Hz), loudness compensation (+10 dB at 100, −4 dB at 10,000 Hz), and switching between main and remote speakers. The tone controls have a range of ±12 dB. The preamplifier outputs and power-amplifier inputs are brought out to jacks on the rear panel to facilitate connection of an intermediate device such as an equalizer. A single tuning meter reads channel-center for FM and signal strength for AM; there is also a beacon light to indicate optimum FM tuning. The receiver comes with a walnut-veneer wood cabinet. Dimensions: 18 x 5/8 x 11/2 inches. Price: $419.90.

Circle 115 on reader service card

Ortofon Speaker Systems

- A line of three new speaker systems being imported by Ortofon consists of two- and three-way designs with wide-dispersion drivers arranged in conventional front-firing configurations. The Ortofon woofers employ special construction techniques intended to reduce drive asymmetry and response-time delay in their electromagnetic drive systems, while the high-frequency drivers are designed for maximum dispersion with a minimum of diffraction effects.

The smallest of the systems, the two-way Model 225, has a 10-inch woofer and 3½-inch dome mid-range/tweeter with a crossover frequency of 1,800 Hz. Woofer size is the same for the larger Model 335 (shown), while the mid-range (600 to 5,000 Hz) is handled by a 5-inch cone driver and the high frequencies by a ¾-inch dome-type tweeter. The top-of-the-line Model 445 is similar, but employs two 8½-inch woofers with different resonant frequencies. These cross over to the mid-range driver at 500 Hz.

The operating frequency ranges for the three systems are 35 to 20,000 Hz, 35 to 40,000 Hz, and 25 to 40,000 Hz, respectively. They are rated for continuous power-handling capabilities of 45, 50, and 90 watts per channel: sound-pressure level for a 1-watt input at a distance of one meter is 92 dB for the Model 225 and 90 dB for the other two. Impedance, said to be very uniform and essentially resistive, is 8 ohms for all three. The Ortofon systems have rectangular enclosures with acoustically resistive ports that serve to damp the woofer without contributing materially to the sound output. On the two larger speakers, five-position level switches vary the output of frequencies between 500 and 20,000 Hz in 1½-step dB steps. The cabinets of all three models are finished in walnut and have removable grilles of black cloth. Dimensions are approximately 21 x 11 1/2 x 9 1/4 inches (Model 225), 23 1/2 x 13 x 9 1/4 inches (Model 335), and 26 3/4 x 15 x 9 1/4 inches (Model 445). Prices (in the above order) are: $139, $199, and $350.

Circle 116 on reader service card

BGW Four-Channel Preamplifier

- The BGW Quadraphonic System Control Center is an elaborate switching and equalization unit for two- and four-channel systems with inputs for tuner, two tape decks, and two phono cartridges. An array of sixteen pushbuttons permits the switching of any input channel into any of the four output channels.

Each of the four channels has a three-band equalizer, with the bands controlled by separate slider-type switches spanning ±12 dB in 2-step dB steps. The center frequency at which each slider acts is switch-selectable, with a choice of 31.5, 63, or 125 Hz for low frequencies; 250, 500, 1,000, or 2,000 Hz for mid frequencies; and 4,000, 8,000, or 16,000 Hz for high frequencies. Pushbuttons permit routing an equalized signal to the inputs of either or both tape decks.

The preamplifier has front-panel jacks for two four-channel headsets, driven by a built-in, four-channel amplifier providing a total of 15 watts continuous into 8 ohms from 20 to 20,000 Hz with less than 0.15 per cent harmonic or intermodulation distortion. Headphone volume is adjusted by a knob separate from the master volume control. The balance control is a "joystick" device. Separate on/off switches are provided for the preamplifier and the associated power amplifier. Specifications for the center include a maximum output of 2.5 volts into 600 ohms or more, with less than 0.02 per cent harmonic distortion and 0.006 per cent intermodulation distortion. Sensitivity is 1 volt out for 1 millivolt in at the phono inputs, and the same output for a 100-millivolt input at the high-level inputs. Frequency responses are 20 to 20,000 Hz ±0.1 dB (high-level section) and ±0.25 dB across the full range.

Continued on page 18
Introducing the KLH Research X Model Sixty Turntable:
A solid triumph in human engineering.

There are more manual turntables to choose from these days than ever before. And most of the better models share many of the same fine features and specifications.

So why make a turntable? (And we are making it—not just slapping our name on someone else's product. Every part is hand assembled in our plant in Cambridge, Mass.)

The answer is in the product itself. The Model Sixty is a two speed, belt-driven, transcription quality turntable that combines all of the most wanted features with exceptional performance and a maximum of something we call "human engineering."

What is human engineering?
It's designing an electro-optical system that automatically shuts off the turntable at the end of the record and gently lifts off the tonearm. This is achieved through the use of a light detector resistor (shown here) rather than a mechanical device which would have to be tripped by the side force of the tonearm. Since our system requires no side force, it virtually eliminates all potential distortion and side thrust problems.

Human engineering is designing a special low mass aluminum tonearm and unique low friction pivot block and post assembly to such exacting standards that usage deterioration and performance deviation is all but eliminated.

Human engineering is designing all of the electronic controls into an upright module for incredibly simple and convenient operation. It's also making the controls feel as good as they look. (Just one touch and you know there's something substantial here.)

In short, human engineering is finding out what people want and need in a product and putting it there. That's why the Model Sixty also features push-button electronic cueing, anti-skating control, a discrete suspension system that minimizes rumble, acoustic feedback and vibrations, one piece dynamically balanced platter, 24-pole synchronous motor and every other important feature you could want in a precision turntable.

All for $150.
Now that's human engineering. The Model Sixty, another superb new product from KLH Research X—a new era in audio.

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

Specifications
Rumble: -58 dBA (CBS-RRLL), exceeds DIN requirements.
Wow & Flutter: .09%, lower than one half of DIN requirements.
Tracking Force: Continuously adjustable from 0.5 to 4.0 grams, with precision calibrated scale.
Average Absolute Tracking Error: 0.3° less than 0.01 radian.
Arm Structure: Low inertia, precision ground, high strength aircraft aluminum alloy.
Suspension: Tripoint seismic suspension of arm and turntable on single precision casting, damped to minimize influence of external vibrations causing high order resonances.
300 RPM Motor: Precision polyphase synchronous low speed motor for minimal vibrations and optimum instantaneous speed accuracy and freedom from counter-rotation.
Timing Accuracy: Better than 5 seconds per average LP side; twice as good as DIN requirements.

Speeds: 33⅓ & 45 RPM
Record Sizes: 7" 10" 12"
Operates on: 105-125 volts, 60Hz only, pilot light indicates power "ON".
Dimensions: 17" (W) 13¾" (D) 6¼" (H) with dust cover.

KLH Research X Division
KLH Research & Development Corp.
30 Cross St., Cambridge, Mass. 02139

CIRCLE NO. 23 ON READER SERVICE CARD
NEW PRODUCTS
THE LATEST IN HIGH-FIDELITY EQUIPMENT

RIAA range for the phono section. Signal-to-noise ratio is 90 dB for the high-level inputs; for the phono inputs, the noise level is the equivalent of an input of less than 0.8 microvolt. The unit's dimensions are 19 x 7 x 10 inches. Price: $849.

An optional plug-in CD-4 demodulator and a matrix decoder will be available in the near future (prices as yet unspecified). The preamplifier can also be used with an optional remote switching box ($139) for the various input sources and power amplifiers.

Circle 117 on reader service card

Nakamichi Model 500 Stereo Cassette Deck

- The Model 500 is the least expensive of the Nakamichi cassette decks, and the first to employ just two tape heads (erase and record/play) instead of the three on the more elaborate models. The dual-function record/play head is designed to propagate a “focused” recording-flux field of carefully controlled shape and size, which according to the manufacturer is beneficial in reducing distortion and high-frequency bias erasure. The resulting increase in recording headroom is reflected in the calibration of the recording-level meters, on which 0 VU corresponds to a level several decibels higher than usual. The meters are peak-reading devices, calibrated over an exceptionally wide range of 45 dB.

The Model 500 incorporates Dolby-B noise-reduction circuits and three-position bias and equalization switches for standard, chromium-dioxide, and Nakamichi EX tapes. A peak-limiting circuit can be switched in to prevent recording levels from exceeding 0 dB on abrupt high-level transients. The five recording-level controls are of the slider type. Two are provided for line sources, and three for microphones: left, right, and a center-channel blend. The deck also has a memory-rewind feature to return the tape to any preselected point at high speed when activated. The transport employs a special d.c. servo-motor.

Frequency response of the Model 500 is 40 to 17,000 Hz for EX tape and 40 to 16,000 Hz with chromium dioxide, both ±3 dB. Signal-to-noise ratios for the two tape types are better than 55 and 58 dB, respectively (weighted, with Dolby circuits on). Harmonic distortion at 1,000 Hz is less than 2 per cent for a 0-VU recording level. Wow and flutter are under 0.08 per cent. The Nakamichi 500 has dimensions of 15 x 4½ x 10 inches. Its base and top plate are of black molded plastic, with metallic trim. Price: $399. A battery-powered version of the machine is available with carrying case and shoulder strap as the Model 550. Price: $499.

Circle 118 on reader service card

Pioneer SE-700 Stereo Headphones

- A unique application of the piezoelectric effect is featured in the Pioneer SE-700 stereo headphones. High-polymer film diaphragms coated with metal electrodes are used. Applying an a.c. voltage to the electrodes produces dimensional changes in the film that cause the diaphragm (because of its curvature) to flex in and out, creating an acoustic output. The SE-700 has relatively flat earpieces that are acoustically open in back and cushioned with plastic-covered foam rings. Pivoting yokes hinge the earpieces to the padded headband, which is extendable for fit. The frequency range of the phones is 20 to 20,000 Hz. They are designed to be driven directly from an amplifier or receiver headphone jack rated at 4 to 16 ohms. The phones produce an output of 100 dB for a 3-volt drive signal and can handle inputs in excess of 30 volts. They present a capacitive load of approximately 0.1 microfarad to the driving amplifier. The phones weigh 13 ounces exclusive of their 10-foot cable and standard three-conductor phone plug. Price: $79.95.

Circle 119 on reader service card

Philips SC-102 Stereo Preamplifier

- The SC-102 stereo preamplifier from Philips is a straightforward design emphasizing low noise and distortion under all signal and loading conditions. The controls include an input selector with positions for magnetic phono and three high-level sources (tuner, tape, and auxiliary), continuously variable bass and treble controls (with "defeat" switches to remove them from the circuit when desired), balance, volume, and a mode selector with positions for stereo, reversed stereo, mono, and either channel. Switchable loudness compensation, a subsonic low-frequency filter (−3 dB at 20 Hz, −14 dB at 5 Hz), and a tape-monitor switch are provided. The bass control has a range of ±18 dB at 20 Hz; the treble control's range is ±15 dB at 20,000 Hz. The rear panel holds all the input and output connectors, plus two switched and one unswitched a.c. convenience outlets.

The rated output of the preamplifier is 2 volts into 600 ohms, or 10 volts into an open circuit. Harmonic and intermodulation distortion, referred to a 2-volt output, are respectively 0.05 and 0.02 per cent. The signal-to-noise ratio (weighted) for high-level inputs is 100 dB; the corresponding figure for the phono inputs is greater than 80 dB. The input impedance for high-level sources is 50,000 ohms. The phono inputs will accept signals up to 250 millivolts before overload occurs. The basic preamplifier frequency response is 2 to 120,000 Hz ±0.5 dB, or ±1 dB for the phono inputs over the specified RIAA range. The SC-102 comes in a metal cabinet with dimensions of 12¼ x 4 x 9 inches. Price: $299.50.

Circle 120 on reader service card

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STEREO REVIEW
He listens to it with AR speakers

A lot of celebrated musicians pay AR speaker systems the finest compliment possible: they use them at home.

Karl Böhm, who conducts the most distinguished orchestras all over the world, has AR speakers at home. Conductor Seiji Ozawa and Herbert von Karajan, and baritone Dietrich Fischer-Dieskau listen with AR speakers. So do jazz trumpeter Miles Davis and singer Judy Collins.

Many musicians would seem to agree with the AR philosophy of accurate—as opposed to "pleasant"—sound reproduction. After all, the aim of a speaker system is to give you the music and let you forget the speakers.

Try it soon. There's a five-year guarantee that your AR speakers will perform as well as Karl Böhm's.

Karl Böhm chose the AR-3a: $295

The AR-7: almost as good: $75

Acoustic Research

US office:
10 American Drive
Norwood, Massachusetts 02062

International office:
High Street, Houghton Regis,
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In Canada:
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   "The Sound of Musical Instruments"
   ($5 enclosed)
☐ A Free Copy of the new AR Catalog

Name: __________________________
Address: _______________________

JANUARY 1975
The new Micro-Acoustics QDC-1 Stereo Phono Cartridge:
It will make any well recorded LP sound exactly like its master tape.

Recently at a trade show in Chicago, we invited audiophiles to compare a master tape with a stereo disc cut from the tape. The tape and the disc were played through the same electronics and the same loudspeakers. The only difference was that a tape deck was used to play the 15 IPS master and a turntable with our QDC-1 Stereo Cartridge (Pat. Pend.) was used to play the commercial pressing. Without fail, listeners could not hear a difference between the disc and its master.

Until the advent of the QDC-1, there really wasn't a cartridge on the market that could make a stereo record sound as good as its master tape. So cartridge manufacturers didn't have to deal with an absolute standard of measurement for their product. Customers were asked to compare to their own cartridge (Pat. Pend.) was used to play the record groove and the preamp input. And that's precisely what the QDC-1 is— an ultra precision component that will radically change the way all cartridges are judged.

**European Voltage Adapter**

**Q.** I have a portable cassette recorder that operates on batteries or its own built-in a.c. line cord. I was about to buy a "step-down" transformer to convert the 220-volt European line voltage to 120 for use with my recorder, but I was told that the line frequency difference (50 Hz vs. 60 Hz in the U.S.) would cause the tapes to run off-speed. Is this true?

**A.** It would be true if you were attempting to use such a transformer with an open-reel or cassette machine that normally was meant to operate only from the a.c. line (or did not have a special motor). However, since the a.c./battery machines all have d.c. motors (an internal rectifier converts the line a.c. to d.c.), their speed of operation should be unaffected by the line frequency. The transformer is okay.

**Equipment Mounting**

**Q.** I've decided to mount my equipment on shelves, and before I plunge right in I thought it would be a good idea to "ask the experts." Do you have any specific suggestions?

**A.** I'm not sure that I qualify as an "expert" in regard to stereo shelving, but here's the way I approach it. It's best not to use a bookcase type of cabinet or floor-standing pole brackets, particularly in old houses, because springy floors may cause your tone arm to respond to any walking about (not to mention dancing!) in the vicinity of the installation. In addition, a free-standing bookcase, because of its large unsupported panels, may pick up the acoustic energy put out by your speakers and feed it back into your record player. The result, at best, would be a reverberant blurring of the sound; at worst you might provoke a loud howl or roar whenever the volume control on your amplifier was turned up past a certain point.

The best sort of arrangement would be open shelves attached to the walls using standards and brackets. If you have an available brick wall, fine. Otherwise, try to locate the 2 x 4 studs within the walls and screw your standards to those. Keep your speakers off the same shelf that holds your turntable and, to prevent hum, locate your turntable so that the tone arm is at least a foot or so away from all high-current power transformers. (They are the large black metal objects found mounted within all amplifier and receiver chassis.)

If, despite all your efforts, there still seems to be feedback to your turntable, you might try the spring-mounting technique shown above. The springs should be selected so that there is a slow bounce (perhaps 5 or 6 per second) from the floating sub-base when the turntable is pushed down and released. Another effective shock mounting is provided by a heavy sub-base sold by Discwasher. In the Discwasher unit, a slab of marble is mounted on damped resilient springs that should decouple your turntable from anything short of a seismic disturbance.
ONKYO gives you 4 new ways to enjoy the sound of the '70's!

And years from now, these superb Onkyo components will still be new — in quality, performance and reliability! That's because Onkyo consistently provides the most advanced design equipment — each including unusually fine quality innovations . . . years ahead of their time. These latest models are a prime example — offering outstanding performance and distortion-free response at a sensible price. Prove it to yourself and audition Onkyo today. Compare the craftsmanship, the attention to detail, the feel of genuine quality. Look at the specifications and features, and read the experts opinions. Your one logical choice is Onkyo . . . Artistry in Sound. A full line of receivers, tuners and amplifiers; the revolutionary TS-500 fully automatic 4-Ch. Receiver; and . . . exciting, 2 and 3 Way Scepter speaker systems — for the sound of the 70's!
Minolta helps you balance your day.

Life's simple moments take on new meaning with a camera responsive enough to capture the fleeting moment.

You're comfortable with a Minolta SR-T from the moment you pick it up. This is the 35mm reflex camera that lets you concentrate on the picture, because the viewfinder shows all the information needed for correct exposure and focusing. You never have to look away from the finder to adjust a Minolta SR-T, so you're ready to catch the one photograph that could never be taken again.

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

For an uplifting experience, try a Minolta SR-T. For more information, see your photo dealer or write Minolta Corporation, 101 Williams Drive, Ramsey, New Jersey 07446. In Canada: Anglophoto Ltd., P. Q.

Minolta SR-T Cameras

Is your camera a means of self-expression? If so, enter the Minolta Creative Photography Contest. Grand Prize: two weeks in the South Sea Islands for two, $1000 cash, and a Minolta SR-T 102. 1428 other valuable prizes will be awarded. Nothing to buy. Minolta equipment not required. See your Minolta dealer for details and registration. Or write: Minolta Creative Photography Contest, Box 1831, Blair, Neb. 68009.

CIRCLE NO. 32 ON READER SERVICE CARD

Because the number of questions we receive each month is greater than we can reply to individually, only those letters selected for use in this column can be answered. Sorry!
three new "no nonsense" receivers from Scott

These new Scott AM-FM stereo receivers are designed for music lovers who demand the most accurate sound reproduction the state of the art will permit, without unnecessary features, controls, or complexities.

Their elegantly simple exteriors conceal all new electronics using the latest advances in circuit design and componentry. Our all new dual-gage MOSFET tuners offer the cleanest FM reception yet achieved, especially in the stereo mode. Our new double filter IF sections have a much steeper limiting curve than most and improve selectivity to 70 dB minimum.

The audible product of our new phase-locked-loop multiplex section includes dramatically improved background noise suppression, especially on FM stereo, and virtual elimination of FM pilot signal and sideband interference. Stripped of the engineering jargon, this means you'll hear the music which was there all along, but without the noise which usually accompanies the signal.

When you play records, you'll appreciate the improved signal-to-noise ratio and doubled headroom before phono overload we've built into the preamps. Audible noise at background listening levels has also been reduced to an all-time low.

The amplifier sections are among the cleanest and most powerful ever offered in integrated receivers at any price. The R77S puts out 70 conservative Scott watts per channel into 8 ohm speakers over the full 20 to 20,000 Hz frequency range at less than 0.5% distortion, and delivers a full 110 watts per channel into 4 ohm loads. The R75S and R74S put out 50 and 40 watts, respectively, into 8 ohms.

The new Scott receivers combine functional elegance on the outside with Scott's traditional excellence based on good old fashioned American craftsmanship on the inside. Visit your Scott dealer today for a look and listen session with the Scott "no nonsense" receivers. We believe you'll find they offer you value in musical and aesthetic enjoyment unexcelled by any other stereo receivers at any price.

where innovation is a tradition

H.H. Scott, Inc., 111 Powderrill Road, Maynard, Mass. 01754
It appears, from several conversations I’ve had with William Dixon of the Federal Trade Commission, that the gentlemen of the FTC did not find Stereo Review’s November article suggesting an alternate means of implementing their Power Rating Rule totally convincing. In the interest of keeping readers abreast of developments in this important area, the following is a somewhat abbreviated version of a note of clarification sent to the FTC at their request. (Some of the points discussed are best understood, of course, by referring first to the original article.)

**FTC Objection 1:** The use of the tone-burst generator for the preconditioning signal (instead of the presently required audio-signal generator) constitutes an extraneous aid. This objection is hard to understand, since a tone-burst generator is as much a standard instrument as the audio-signal generator (required to provide the 1,000-Hz sine-wave drive signal) that it would replace for this portion of the test. Such an instrument is readily available commercially or, if desired, a simple circuit to perform the same function could be built for under $15.

**FTC Objection 2:** The 1-millisecond (111,000 of a second) on at full power, 2-milliseconds off preconditioning drive signal will not precondition the amplifier for one hour as required, but only for one-third of an hour. I believe that any-one familiar with engineering practices would consider the suggested revised drive signal as having a one-hour duration for any practical test or preconditioning purpose. But, if the preconditioning time is a major stumbling block, then I’m sure no manufacturer would object to extending the preconditioning period (with the revised drive signal) to 3 hours, though such a change is both technically and logically unnecessary.

It is worth clarifying here, however, the purpose of “preconditioning,” which unfortunately has become confused in our discussions (and in the Rule) with “life testing.” A preconditioning period is intended only to ensure that the amplifier’s operating conditions have stabilized so that any measurements made will be representative of normal performance. A cold amplifier may perform marginally better in some areas (power available) and marginally worse in others (distortion). “Accelerated life-testing,” on the other hand, is a procedure used by manufacturers to electronically, thermally, and physically stress equipment by subjecting it to extremes of temperature, voltage, and current surges. The purpose is to provoke failure of any “weak-link” parts.

The Commission apparently feels that “heavy-duty” amplifiers may benefit the home user in respect to durability or service life. This would be true only if all amplifiers had perfect parts installed and were perfectly designed to withstand the normal stresses encountered in consumer installations. Then a reduction in an amplifier’s operating temperature (or its ability to withstand the one-third preconditioning) could be a factor in determining its usable life. However, in this imperfect world, the effect of heating is only one of many factors that shorten amplifier life to the point of breakdown, and it may not, in fact, be even a significant factor among those many. If it were, then those amplifiers that could presently withstand preconditioning according to the Rule would, as a group, have a substantially better service record than those that can’t. All the data I have been able to accumulate indicate that they don’t. Many manufacturers will, on special order, redesign their high-power amplifiers to serve special high-stress requirements (that is, servo-motor drivers, public-address amplifiers, and so forth). In their view, the special heavy-duty commercial requirements are just that: such design achieves nothing for the home user except an increase in cost.

The Rule states that it applies only to amplifiers intended for “home-entertainment purposes.” This means reproduction of music, voice, or even sound effects. The preconditioning test signal should therefore be one whose characteristics most closely resemble the waveforms of music, voice, or sound effects. A pulsed or intermittent signal (such as 1 millisecond on at full power, 2 milliseconds off) does have those characteristics; a continuous sine wave does not.

I understand that the Commission may have some question as to the time/amplitude characteristic of some types of music (hard rock, for example) and whether or not they may, in truth, approach the one-third power level of the preconditioning. It is easy enough to resolve this question of the effect of a given music signal on an amplifier’s heating. Connect up the amplifier as it would normally be used. Drive conventional low-efficiency speakers with a variety of program material to the loudest desired volume in a living room of average size. Observe the temperature rise of the amplifier heat sinks and compare this with the temperature rise produced by the 1/3-power test, the 1/2-power, and the pulsed 1/4-power test. This will cut through the theoretical hassle and provide a practical answer to the question of the “proper” preconditioning signal.

Perhaps it should be stressed that I am in full agreement with the intentions of the FTC in this matter. My main concern, like theirs, is the consumer. But I am also concerned that the consumer not be accidentally “injured” by a protective rule that could easily mean paying more for an amplifier that under most conditions provides no additional value in respect to performance or durability.

I wonder how many readers know that the Institute of High Fidelity has a program set up to produce new standards for all hi-fi components? The FM tuner standard discussed by Julian Hirsch (Technical Talk, November 1974) is the first IHF standard to be formulated and adopted.

At the moment, the IHF Amplifier Standard Committee members are still preoccupied by the FTC rule problems, but no matter what the final resolution of the question (see “Amplifier Power-Output Ratings,” also in the November issue), an up-dated IHF amplifier standard is necessary. After all, the FTC rule is intended only to regulate how amplifier power is advertised so as to provide the consumer with a common basis for comparing performance in that specific area.

However, amplifiers, like politicians, certainly do not achieve virtue by power alone. The FTC rule is not concerned with such factors as signal-to-noise ratio, transient response, overload characteristics, sensitivity, and so forth, all of which have significant effects on an amplifier’s quality. For a comprehensive description of an amplifier’s performance, these factors—and many more—need to be spelled out and measurement techniques specified. It is perhaps necessary to explain that “standard” as the term is used by the IHF (and others) refers only to measurement, rating techniques, and language. There is no quality or “class” rating intended; the standard describes how to test and specify the performance of a 3-watt amplifier as well as it does a 300-watt unit. (The German DIN Standard does class equipment in various categories of merit. I understand them, the specification categories are so broad that they are of no real value to an audiophile.) In any case, the IHF Amplifier Standard Committee, of which I find myself the chairman, will be addressing itself to generating a new standard, and suggestions and comments are invited.

I have a limited number of copies of the old IHF Standard booklet, and I will be happy to send one to any engineer who requests it on his company’s letterhead, and includes an 8 x 10 stamped self-addressed envelope. Write to Stereo Review, Dept. IHF, One Park Avenue, New York, N.Y. 10016.
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Glossary of Technical Terms – 15

- **Frequency** is the rate (number of complete events or cycles per unit of time) at which any repetitive phenomenon occurs. In the case of sound, the repetitions are cyclical fluctuations of air pressure. For example, the standard pitch of A to which American orchestras tune produces a complete high-and-low pressure fluctuation (cycle) 440 times per second in air and thus a frequency of 440 Hz (“Hz” is the unit of frequency). Alternating house current in the U.S. has a frequency of 60 Hz—60 complete alternations in the direction of current flow occur each second.

- **Frequency response** is a specification that describes not only the frequency range over which an audio component has a useful (audible) output, but also the uniformity with which all the frequencies within that range are treated. For example, a speaker system might have a frequency range of 40 to 15,000 Hz (meaning that it has measurable output at all frequencies within that span). However, if its output at certain of these frequencies is, say, 10 decibels below or above its output at others, the speaker is not likely to be a satisfactory reproducer. A true frequency-response specification might read 40 to 15,000 Hz ±3 dB, meaning that no frequency differs in output level from any other frequency by more than 6 dB. The ideal is, of course, “flat” frequency response—no frequency differing from any other at all.

- **Fundamental** is the lowest frequency component in any complex sound. When an oboist plays A on his instrument so that the rest of the orchestra can tune to it, his oboe emits a complex sound composed of the fundamental plus numerous overtones or harmonics. But the note A as indicated on his musical score is the fundamental, which is equivalent to 440 Hz. The overtones or higher harmonics are contributed by the instrument itself; each musical instrument having a particular overtone structure that is largely responsible for its characteristic sound.

The fundamentals of most musical instruments are well within the frequency range of the average music-reproduction system; it is the overtones that are of very high frequency that may be “lost.” However, some instruments (such as a large pipe organ) can generate fundamental frequencies as low as 16 Hz—too low for almost any speaker system. When a music system attempts to reproduce this sound, the fundamental is lost and only the overtones are heard.

- **Gain** refers to an increase in the strength of an electrical signal, and is what amplifiers provide. Sometimes volume and level controls are called gain controls, since they adjust the amount of gain the amplifier introduces. In the special case of FM antennas, the “gain” at the antenna’s output is actually the output compared with that of a standard reference dipole antenna which has been assigned a “gain” of 0 dB.

- **Ground** means any point in an electronic circuit that is electrically neutral—that is, a zero reference point for the rest of the circuit. The term “ground” itself is meant to suggest that such a point is at the same zero voltage potential as old Mother Earth. The English, in fact, use the term “earth” instead of “ground.” If points in an audio circuit that should be at ground potential (such as the shield of a cable) are not, the possibility that electrostatic noise (usually 60-Hz hum) will be picked up and heard through the speakers is greatly increased. It is customary to connect certain audio components (such as turntables) to the chassis of the receiver or amplifier with a separate “ground wire” to ensure that the phono-cartridge ground leads and the turntable chassis are operating at exactly the same voltage potential as the amplifier.
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TECHNICAL TALK
By JULIAN D. HIRSCH

● FET POWER AMPLIFIERS: One of the continuing controversies among the “outer-limits” audio enthusiasts is whether vacuum-tube amplifiers sound better than transistor amplifiers (or vice versa). People who claim to hear a difference (it is usually in favor of tube amplifiers) cite some of the known technical operational differences between the two basic devices and attempt to explain what they hear in terms of these known and measurable qualities.

There can be little argument that tubes (especially triodes) produce smaller amounts of odd-harmonic distortion, as well as less of the higher-order harmonic distortions, than transistors do. In ideal circumstances, tube-amplifier distortion can be limited to mostly second-harmonic, which can then be largely cancelled out by the usual push-pull output-stage configuration. And, in addition, a moderate amount of negative feedback can then be used to reduce the residual distortions to insignificant levels.

By contrast, conventional transistor amplifiers are prone to “notch” distortion in the waveform. This generally takes place at the point where the transistors that handle the positive part of the waveform turn off and the negative-handling transistors turn on. This notch produces distortion that is rich in the audibly objectionable higher harmonics. If the transistors are biased for “Class-A” operation, the distortion at this “crossover” point is eliminated, but the efficiency and power output are radically reduced and the heat-dissipation problems are aggravated.

Some audiophiles, in the United States and elsewhere, are convinced that the sonic advantages of tube amplifiers outweigh their inefficiency, cost, bulk, and considerable heat production. It is fair, I think, to say that a veritable cult has therefore arisen, one dedicated to the proposition that tubes are somehow superior to transistors in listening quality, even though there have not been, to my knowledge, any controlled, impartial, scientific tests that confirm (or disprove) this claim.

In any event, it would certainly be a good thing if the possible advantages of tubes could be combined with the recognized advantages of transistors and with none of the disadvantages of either. This rather tall order may not be impossible, judging from recent news from Japan. A field-effect power transistor (FET) has been conceived and developed by Professor Nishizawa of Tohoku University, and it has been brought to commercial reality by Nippon Gakki (Yamaha) under commission from the Japan Technology Development Foundation. Other companies, including Trio (Kenwood), Matsushita, Sony, and Pioneer, have been working along similar lines. However, Nippon Gakki holds a key patent for a critical process used in manufacturing the power FET, which in its physical and electrical structure is very different from both ordinary power transistors and the small-signal FET’s used in various hi-fi circuits.

Yamaha has demonstrated a power amplifier using FET output transistors that will soon be available in this country. Although its performance specifications are impressive, they are generally within the present state of the art for high-power transistor amplifiers. For example, the distortion at 150 watts per channel into 8 ohms, from 20 to 20,000 Hz, is claimed to be less than 0.03 per cent, falling to less than 0.01 per cent at 1,000 Hz. Good as this is, in and of itself it hardly represents a breakthrough in audio technology. The special nature of the Yamaha FET amplifier is revealed by some of its other characteristics, however. The 150-watt output is developed by only two FET power transistors in the output stage, as compared with the six, eight, or more conventional power transistors used in most amplifiers of similar power rating. Each of the FET’s is about the size of an ordinary power transistor, but it can dissipate 300 watts! The power FET, by virtue of its internal construction, has vastly superior heat conduction, and in addition is inherently immune to the thermal-runaway effect that has been the bane of conventional high-power amplifiers.

The electrical characteristics of a power FET are very similar to those obtained by using a large number of triode power-output tubes in parallel. We have seen data suggesting that one power FET behaves like ten (!) of the old 2A3 tubes in parallel, except that it can safely dissipate far more power. Clearly, the reduction of the number of active devices (and their matching requirements) can be a great boon to the designer.

To sum up the features of a power FET amplifier stage, it combines the electrical properties of a triode-tube power amplifier with the higher efficiency of a transistor amplifier. It has complete freedom from notch distortion and generates virtually no spurious higher-order harmonics. This means that extreme amounts of negative feedback are not required to achieve today’s “standard” miniscule total-distortion rating. (From the standpoints of stability and overload performance, of course, the less feedback the better.) Furthermore, the FET is thermally stable, it can dissipate huge amounts of power safely, and it does not require the use of a large...
number of devices to develop the highest power levels ever needed in the home.

But surely this paragon must have some disadvantages? We have seen nothing to suggest any technical performance limitations, as compared with either bipolar transistors or tubes. Doubtless some exist, but we suspect they are minor. The major FET difficulty, at the moment at least, is its high cost. At this time neither Yamaha nor the other companies that have announced or shown FET power amplifiers have established firm prices, but it is clear that they will be much more expensive than conventional transistor amplifiers of similar performance ratings.

A few months ago I was present at a sonic A-B comparison between a prototype Yamaha FET amplifier and several of the finest "super-power" amplifiers on the market. The results, I felt, were inconclusive. Although a few members of the listening panel felt that the FET amplifier had a tighter, better-defined sound, most of the group, including myself, did not hear significant differences between any of the amplifiers. This came as no surprise to me, since whenever we have performed listening tests with amplifiers that had comparable frequency-response and distortion characteristics (say, less than 0.2 per cent of any kind of nonlinear distortion under any operating condition), and sufficient power so that they are never driven into clipping, those subtle differences that others claim to hear between different power amplifiers, either transistor or tube types, were never audible.

It has been claimed that the special sonic properties of some tube amplifiers can be heard only with certain special speakers. I therefore await with interest the reactions to the FET units of those super-golden-eared audiophiles who regularly "hear" such differences. I suspect that their opinions may go either way, depending upon a random assortment of subjective variables.

In the Yamaha demonstration, the speakers were a new model (developed by them) which previous listening comparisons had shown (by unanimous agreement of the people present) to be superior in some aspects to many of the most highly regarded American speaker systems. Nevertheless, they were more or less conventional three-way dynamic speaker systems, and they probably did not present any unusual loading conditions to the amplifiers. In our listening comparisons, Yamaha used a number of records, representative of current commercial standards, containing a variety of musical material from classics to rock to popular vocals. I felt that, with all of these, plus noise test signals, the amplifiers sounded so much alike that one could not always be sure that a switch had been made.

All this is not to denigrate the potential of this new amplifier device or of others to come using the same techniques. I think it is an impressive advance in the audio power-amplifier art, aside from its potential sonic attributes. Remembering what ordinary silicon power transistors cost a few years ago, I would expect power FET technology to eventually make a significant impact on hi-fi equipment at all price levels. When the new amplifiers reach the market, we will have an opportunity to evaluate them under normal home test conditions, and perhaps we can come to some more definite conclusions at that time.

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**EQUIPMENT TEST REPORTS**

By Hirsch-Houck Laboratories

**Revox A700 Stereo Tape Deck**

The Revox A700 is a three-motor, three-head, three-speed recorder operating at 3¾, 7½, and 15 ips. The machine's flexible input mixing facilities employ two sets of stereo inputs controlled by a pair of input-selector switches. Each selector can be set to microphones (either low- or high-output types) or to a variety of high-level sources. One set of inputs can also be used for a magnetic phono cartridge if desired. The selected input sources can be mixed, and since each channel has two vertical-slider recording-level controls, it is possible to mix four microphone or other program inputs. There is, in addition, a single master recording-level slider. The two VU meters are located behind a single window next to the master level control. The meters are equalized to register the high-frequency boost applied to the recording signal in order to give advance warning of possible high-frequency tape overload. On the face of each meter there is a red indicator (a light-emitting diode—LED) which flashes at a +6-dB recording level to warn of excessive short-term peak levels that might not register on the meters. Below each input selector are its two associated microphone inputs, which are balanced.

The A700 includes, in effect, a high-quality stereo control preamplifier able to drive an external power amplifier. Its controls, grouped at the right side of the panel, include bass and treble tone controls with click stops, a stereo, mono, L, or R mode selector, and two vertical sliders for playback-volume adjustment (Continued on page 34)
The Specification Guarantee: Perhaps someday everyone will have it.

You're looking at the new Technics 600 Series, two of the finest cassette decks we've ever made. But equally important, they're also our first examples of "the Specification Guarantee." The only kind of a specification we feel is worth serious consideration.

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Technics by Panasonic
From front to rear: Dual 1229Q, $259.95; Dual 1228, $189.95; Dual 1226, $159.95; Dual 1225, $129.95.
How to decide which turntable you really want from all those available.
(Including ours.)

More than 75 record players are listed in a current directory of audio components, and a typical dealer may display a dozen or more. Which may make it a little more difficult than ever for you to decide which one you really want. Perhaps what follows will help.

Quality and reliability are essential.

The very least you should require of a record player is the assurance that its tonearm can track flawlessly with the most sensitive cartridges available, and that its drive system will introduce no audible rumble, wow, or flutter.

Remember, your record player is the only component that physically handles your records, so to compromise with quality here can risk damage to your precious record collection and produce sounds which were never recorded.

Manual or automatic, single play or multi-play?

Although you should not compromise with quality, you can compromise with convenience.

If you happen to prefer handling the tonearm at the beginning and end of every record—with the risk of damaging the stylus and record—you can narrow the choice down to the manual turntables.

However, if you would rather not handle the tonearm, you had better concentrate on the automatic turntables.

And if you—or anyone else in your family—will ever want to play two or more records in sequence—your only choice would be from among the automatic turntables with provision for multiple play.

All of which brings us to the four turntables pictured here.

What most audio experts prefer.

More audio experts—engineers, editors, salesmen—own Duals than any other make of quality turntable. The same is true of the readers of the audio/music magazines. These serious music lovers, whose investment in records typically exceeds their investment in equipment, prefer Dual for only one reason: quality.

Dual owners most frequently use their turntables in the automatic, single-play mode; only occasionally to change records. (Just for the record, virtually the entire changer action in a Dual takes place within the long spindle. Only one part beneath the chassis is used, and that is simply to detect the presence of the changer spindle. Throughout play, the tonearm itself is totally disengaged and free-floating.)

Thus, you can narrow your turntable selection to any of the Duals pictured here, especially since even the lowest priced model, the 1225, has more precision than you are ever likely to need.

Not pictured here, but also available, are two more Duals for those who prefer single-play automatic turntables without multi-play option. These are the belt-driven model 601 at $270, and the all-electronic direct drive model 701 at $400.

When you visit your authorized United Audio dealer, take your time in deciding which Dual you really want. You’re likely to own it a long, long time.

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The heads and capstan of the A700 are in full view when the cover is removed. Record and playback heads are directly in the center.

The excellent 0-dB curves illustrate the A700's freedom from tape-saturation effects.

The heads and capstan of the A700 are in full view when the cover is removed. Record and playback heads are directly in the center.

The heads and capstan of the A700 are in full view when the cover is removed. Record and playback heads are directly in the center.

The heads and capstan of the A700 are in full view when the cover is removed. Record and playback heads are directly in the center.
Put your favorite record on the large 12" aluminum platter of the new Sansui SR-212 automatic return turntable and you will be pleased with the results. You'll be pleased with the ease of operation. A cueing control that lets you place the arm at any point on the disc and go "automatic" from there. You'll be pleased with the reliability and rugged construction of the SR-212's belt-driven full-size platter powered by a 4-pole synchronous motor.

You'll be pleased by the statically balanced S-shaped arm and anti-skate features. You'll be pleased by the solid stability assured by Sansui's multiple point suspension system. You'll be pleased by Sansui's added features of handsome wood base and hinged dustcover. And, most of all, you'll be pleased by the reasonable price that goes with this new Sansui turntable. Hear it at your nearest franchised Sansui dealer.
standard 99 per cent) on 0.3-second tone bursts. The peak warning lights flashed at +7 db.

The tape transport operated smoothly, with the tape always under complete control, no matter in what sequence or how rapidly the control buttons were operated. By a stroboscope measurement, the tape speed appeared to be exact. The w0w was unmeasurable, being less than the 0.01 per cent residual of the test tapes, and flutter (r.m.s. unweighted) was 0.05 to 0.055 per cent at all three speeds. In the fast modes, 1,800 feet of tape was handled in 85 seconds.

Comment. Compared with other fine home tape recorders, most of which are considerably less expensive, the Revox A700 offers some tangible immediate advantages and a potential (but difficult to evaluate precisely) long-term advantage.

It is clear from the measured performance of the A700 that its distortion and S/N characteristics are superior to those of most home tape recorders. This is one machine that could hardly benefit from the use of Dolby B noise reduction, for example. We also checked a half-track version of the A700, which proved to be essentially identical to the quarter-track model, except for the expected improvement (2 to 3 dB) in S/N. The feature of variable-speed operation, which we would normally expect to be of interest to professional users, gives the advanced amateur the opportunity to create special recording effects not possible with conventional tape recorders. And, for many users, the flexible input facilities will save the cost of an external mixer.

The transport of the A700, aside from its several novel features, is certainly one of the best basic designs we have encountered. Although it is capable of achieving extremely—sometimes frighteningly—high speeds in fast forward and rewind, the logic system and tension-controlling mechanism of the tape guides assured gentle handling of the tape under all conditions of use (and abuse) we could set up. Unlike the A77, the A700 employs mechanical reel brakes that bring the tape to a swift, safe stop and eliminate any need to slow the transport near the end of a reel by engaging the fast speed in the opposite direction.

Overall, the rugged construction and sophisticated electronic transport control system suggest that the A700 should give exceptionally long and superior service with a minimum of maintenance.

Circle 105 on reader service card

Design Acoustics D-4 Speaker System

An underlying design philosophy of the Design Acoustics loudspeaker systems is to provide the widest possible dispersion of all frequencies, together with a uniform energy (power) response across the audible frequency range. In their first product, the D-12, the company obtained an essentially omnidirectional response by using a large number of drivers in a spherical (dodecahedral) configuration, and in the D-6 a similar result was achieved in the forward hemisphere in a more conventionally styled system.

The Model D-4 carries this approach into a more popular price range. The D-4 is a columnar floor-standing unit 38 inches high, 17⅛ inches wide, and 9½ inches deep. Three sides of the fully sealed column face into the listening area; the 10-inch woofer radiates toward the rear from the bottom of the enclosure’s rear panel. In the center of the front panel is a 5-inch mid-range driver which radiates through a 2-inch damped aperture. There are three 2½-inch high-frequency drivers. One is installed in the lower portion of the front panel, the others near the top of each side panel. This configuration not only disperses the high-frequencies effectively across 180 degrees in the horizontal plane, but provides extra power-handling capacity.

The crossover frequencies are 800 and 2,000 Hz. Two toggle switches in the rear of the speaker shift the woofer and tweeter levels by 3 dB relative to the fixed mid-range level. The recommended driving power from the amplifier is 25 to 75 watts. The three front surfaces of the D-4 are covered with a brown grille cloth, and the top is walnut. The system weighs 60 pounds. Price: $199.

Laboratory Measurements. Design Acoustics recommends that the D-4 be placed no closer than 2 inches, and preferably 4 to 6 inches, from the rear wall. We made tests with the speaker installed both in the recommended location and about 2 feet from the rear wall. The performance seemed to suffer not at all in the non-optimum location. The integrated frequency response throughout the room was generally quite uniform, although there were several variations of a few decibels which could not be definitely attributed either to the speaker or to the test environment. We measured the low-frequency response with a microphone placed close to the woofer to avoid room effects; this provides an accurate indicator of the woofer’s innate capability, though not of its actual performance with any given room or placement within a room.

It was interesting to find that our measured data was in close agreement with the manufacturer’s specifications for the speaker’s frequency response (which is based on anechoic measurements at sixteen points around the speaker to derive a true power response). Our “live-room” method gives results closely resembling those of such an integrated measurement, and our composite response curve for the D-4 showed a variation of only ±3.5 dB from 36 to 16,000 Hz, as compared with Design Acoustics’ specification of ±3 dB from 40 to 15,000 Hz. All measurements were made with both level switches in their maximum positions. The woofer switch reduced the output by about 2.5 dB below 1,000 Hz, while the two-position tweeter switch provided a level shift of about 3 dB above 1,500 Hz.

The low-frequency distortion was exceptionally low. In fact, our readings were limited by ambient room noise to about 0.5 per cent from 100 Hz down to 60 Hz at either a 1-watt or 10-watt drive level. At 1 watt (based on an 8-Ohm load), the distortion rose to 2 per cent at 40 Hz, 5 per cent at 29 Hz, and 14 per cent at 20 Hz. The increase was naturally more rapid with a 10-watt input, which gave readings of 5 per cent at 40 Hz and 12 per cent at 30 Hz. The efficiency of the D-4 was similar to that of many acoustic-suspension speakers, with a 1-watt signal in the 1,000-Hz range giving (Continued on page 38)
ESS is shaping the future of high fidelity with a standard of loudspeaker excellence destined to be tomorrow's norm. Incorporating the revolutionary air-motion transformer invented by physicist Dr. Oskar Heil, ESS speakers have broken free from bankrupt concepts of the past to achieve accuracy so dramatic they deserve to be called the loudspeakers of the future.

Presently the high fidelity industry evaluates performance of speakers with a response curve that measures the relative loudness of various frequencies. But our ears are not very sensitive to loudness. Most people, for example, do not realize that a mere 3 dB increase actually represents a doubling of power because it is heard as just perceptibly louder. On the other hand, our ears are very sensitive to the frequency content of sounds. With this faculty, we can immediately recognize a friend's voice even over a crude telephone. The extraordinary sensitivity of the ear in this area can be realized by imagining yourself at a concert with the orchestra playing double forte. Amidst this avalanche of sound, a single trumpet hits a wrong note and you are immediately aware of this inaccuracy although the trumpet represents only an infinitesimal fraction of the sound power being produced.

Since our ears are so sensitive to the frequency content of sounds, even the minutest amount of frequency distortion will make us aware we are listening to a reproduction. "Listener fatigue" occurs as we unconsciously fight to ignore these distorted inaccuracies which are produced by conventional loudspeakers because, like all solids, their solid diaphragms "store" energy. "Stored" energy is what happens to piano strings when they are struck. They take in energy at the hammer's impact and "store" it, releasing it slowly as a sustained tone. It is this resonance that allows us to recognize a vibrating solid as a block of wood, a bell, a cymbal, or a gong. The solid diaphragms of conventional speakers have such a resonance too. This "storage" resonance is designed to be as short as possible, but because the voice coil is always pushing and pulling, it is constantly being reexcited.

With the insight of a creative genius, Dr. Heil developed the air-motion transformer, a driver that does away with all these obstacles to accurate sound reproduction and achieves a level of performance never before experienced.

The ESS Heil air-motion transformer adds absolutely no coloration of its own; even the human ear, more sensitive to coloration than any instrumental test yet devised, can detect no impurity, and it is capable of transient definition beyond the ability of the ear's resolution. Listeners are immediately aware of the astonishing clarity and definition, extreme instrumental purity, and the incredible stereo breadth and imaging produced by the ESS Heil air-motion transformer.

Now there are five speakers that give you the high adventure of the ESS Heil air-motion transformer at prices surprisingly modest for systems so advanced. High fidelity standards of yesterday no longer apply, so hear tomorrow's state-of-the-art today at any franchised ESS dealer.
a sound-pressure level of 90 dB at a distance of one meter.

To test the power-handling and sonic output-level capability of the D-4, we played some compressed rock music as loud as we dared. The meters of the 400-watt power amplifier used ranged between 0 and +3 dB, indicating that over 200 watts per channel were being handled on loud program peaks. The SPL, about 10 to 12 feet from the speakers, averaged 105 dB. This would correspond roughly to 115 dB at a distance of 1 meter, less 3 dB because two speakers were used. It seems safe to say that the D-4, in a home environment, should be able to play as loud as anyone could want without distortion or damage. The impedance curve was between 5 and 8 ohms over the entire audio band, except for the rise at resonance to 25 ohms at 50 Hz. The tone-burst response was judged to be fairly good except in the woofer range, where it was excellent.

- **Comment.** On first listening to the Design Acoustics D-4, we were instantly aware of its smooth, extended high end (which is so well dispersed that one can walk around the speaker, almost to its rear, with no significant change of sound character) and the relative absence of bass “boom.” Many, if not most, speakers have an emphasized output between 100 and 200 Hz that imparts a “heaviness” we find unnatural. The D-4, we were pleased to find, has little or none of that quality. The woofer resonance does supply a broad rise in output at about 50 to 60 Hz. This is low enough in frequency to avoid introducing objectionable coloration, yet provides a very solid “bottom end” to the sound.

In the simulated “live-vs.-recorded” test, the D-4 lived up to the precedent set by the D-6 and D-12. In almost every respect its reproduction of the test program was perfect. Since the D-4 had considerably better dispersion than the reference “live” speaker, it could match its sound anywhere in the room. The only coloration we heard was a slight emphasis in the lower mid-range, between about 200 and 500 Hz, when the woofer-level switch was in the boost position. Setting the woofer-level switch at its lower position corrected the condition.

We must conclude that Design Acoustics has once again come up with a fine, notably accurate loudspeaker. Although we did not have its predecessors on hand for comparison, it appears that the D-4 is very similar to them in its basic sound character. Almost as impressive as the sonic performance of the D-4 is the fact that it costs about the same as a host of other adequate, but comparatively undistinguished, “bookshelf” speakers. In its own small way, Design Acoustics seems to be offering one answer to galloping inflation: more performance for less money!

Circle 106 on reader service card

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**Integral Systems Model 200 Power Amplifier**

- **The** Integral Systems Model 200 stereo power amplifier is rated at 100 watts per channel into 8-ohm loads. Although its continuous 4-ohm power rating is also 100 watts (determined by power-supply considerations), the short-term output is about 150 watts per channel. The Model 200 is relatively compact and light in weight for an amplifier of its power, but its large heat-sink area enables it to operate at safe temperatures even when both channels are driven to full power for up to 15 minutes.

Current production models feature a “Photoguard” protective system which uses an optical sensor to monitor the output current. Excessive load currents, such as might be drawn by speaker impedances of less than 3.5 ohms at high power levels, shut down the amplifier before damage occurs. If the Photoguard relay is tripped, the amplifier must be turned off for about 30 seconds to allow the circuits to reset.

The Integral Systems Model 200 is 19 inches wide, 5 3/4 inches high, and 12 3/8 inches deep; it can be installed in a standard relay rack. The amplifier weighs 21 pounds. Insulated binding posts for the speaker outputs, two phono-jack inputs, the speaker fuses, and the line fuse are located in the rear beneath the heat sinks. The amplifier is designed to be switched on by the associated preamplifier, and has no controls of its own. A red LED pilot light is on the front panel. Price: $350. An optional walnut cabinet is available for $40.

- **Laboratory Measurements.** Because of the large heat sinks on the Model 200, we were encouraged to subject it to the severe treatment of continuous operation for an hour at one-third its rated power output. After such treatment, the heat sinks were still not too warm to the touch, and the amplifier performance was unaffected. The power at clipping into 8 ohms at 1,000 Hz was 113 watts per channel, and with 4-ohm loads it rose to 144 watts. The power output into 16 ohms was 86 watts, which is a relatively high figure for an amplifier of this power rating (most amplifiers deliver only (Continued on page 40)
This is all we want to do.
But perfectly.

The engineering of high-fidelity turntables is a technical and controversial subject. But the concept of a perfect turntable is perfectly simple. Since a perfect turntable is what we at Garrard have been striving to make, we'd like to communicate this concept to you as unequivocally as possible. Then all the claims and counterclaims you hear will fall into place.

Think of it this way:
A phonograph record doesn't know and doesn't care what kind of mechanism is spinning it, as long as it's spinning properly. If your hand could turn it at exactly 33⅓ RPM, without the slightest fluctuations in speed, and keep it moving in the horizontal plane only, without the slightest jiggling or vibrations up-and-down or sideways, you could expect perfect reproduction.

Similarly, a phono cartridge has no idea what's holding it in the groove, as long as it's properly held. If your other hand were holding it, correctly aligned, with the right amount of downward force and without resisting its movement across the record, it would perform faultlessly.

That's really all there is to it.

The basic point is that the turntable and tonearm have exceedingly simple and purely mechanical functions, just like a chemist's analytical balance or a gyroscope. That's why turntable manufacturing is, above all, a matter of precision and integrity, with the emphasis on perfect operation rather than hi-fi pizzazz or features for features' sake.

Of course, theoretical perfection in an actual mechanical device is an unrealizable ideal. But even though 100% is impossible, there's a big difference between 99.9% and 98%.

It's in this most fundamental sense, we feel, that Garrard turntables are in a class by themselves.

For example, in the case of the Zero 100c changer and the Zero 100SB single-play automatic, tracking error has been reduced to a virtually unmeasurable quantity (in effect, zero) by the geometry of the tonearm design. Rumble, wow and flutter figures are also coming ever closer to theoretical perfection in these and other top Garrard models. (The Zero 100c and the Zero 100SB are both priced at $209.95.)

To a less spectacular degree, the lower-priced models, from $49.95 up, also come quite close to the theoretical ideal because of this emphasis on fundamentals.

Remember: all we want is to make your record revolve perfectly and to position your phono cartridge perfectly. And we're almost there.


CIRCLE NO. 15 ON READER SERVICE CARD
about 60 per cent of their 8-ohm power into 16 ohms).

At all power levels up to 40 watts, total harmonic distortion (THD) with a 1,000-Hz test signal was less than 0.025 per cent, and it rose to 0.068 per cent at the rated 100 watts. The intermodulation (IM) distortion was less than 0.03 per cent from about 3 milliwatts to several watts output, 0.1 per cent at 50 watts, and 0.23 per cent at the rated 100 watts. At full power, the THD was about 0.08 per cent from 20 to several thousand hertz, reaching 0.1 per cent at 11,000 Hz and 0.21 per cent at 20,000 Hz. At lower power outputs, the characteristic was similar, except that the distortion levels were lower. At half power or less, the distortion was typically 0.03 per cent, reaching 0.06 to 0.07 per cent at 10,000 Hz and 0.08 to 0.14 per cent at 20,000 Hz.

An input of 0.18 volt drove the amplifier to its reference power output of 10 watts, and the noise level was 82.5 dB below that power (or 92.5 dB below rated full output). We noted that much of the measured (but inaudible) noise signal appeared to be r.f. pickup of local broadcast stations (which may have been related to the amplifier's high input sensitivity), so that the actual noise generated within the amplifier was somewhat less than measured.

The frequency response of the Model 200 was very flat across the audio band, varying less than 0.1 dB up to 20,000 Hz, where it was down 0.5 dB. The response was down 3 dB at 6 Hz and 300 kHz, and the square-wave rise time was 1 microsecond. There was no sign of any instability with capacitive loads, which had no effect on the square-wave response until a very large shunt capacitance was applied. Even a 2-microfarad capacitor in parallel with 8 ohms caused only a couple of cycles of moderate-amplitude ringing at about 50 kHz.

- **Comment.** We have been informed by Integral Systems that the current Model 200" is rather stark, with only a couple of cycles of moderate-amplitude ringing at about 50 kHz.

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- **Comment.** We have been informed by Integral Systems that the current Model 200 might be better described as a "super-power" amplifier. Nevertheless, we suspect that many people would find 100 watts per channel to be more than adequate for their most critical listening needs. In any case, the Integral Systems Model 200 fills the gap, both in power output and price, between the many amplifiers rated at 30 to 60 watts per channel and the true "super-power" brutes which cost several times as much and deliver 200 or more watts per channel. Its quality of performance ranks with the best of them, and the manner in which it copes with the lowest audio frequencies shows there has been no skimping in its basic design.

The satin-finish front panel of the CT-7000 is, indeed, rather stark, with only the large tuning knob and a small power switch visible in normal operation. A long, narrow cut-out and two shorter ones, with no bezels or decorative trim, expose the dial scale and two tuning meters. These appear to be conventional signal-strength and zero-center tuning indicators, but the signal-strength meter has a 100-dB display range which provides useful indications with input-signal levels from a few microvolts to over 100,000 microvolts, and it also...
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Epicure Corporation is that division of Epicure Products, Inc. that has been designated as spawning ground for all the company's state-of-the-art products.

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Hirsch-Houck Laboratories

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Stereo Review Magazine

“She feel of precision machinery...rumble was inaudible”

Hi Fi Stereo Buyers Guide

“Absolutely no speed error at either 33-1/3 or 45 rpm”

High Fidelity Magazine

“The turntable suspension is almost impervious to jarring or bumping”

Audio Magazine

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The special controls of the CT-7000 are normally concealed behind a hinged panel. Note the headphone jack at far left, next to its own volume control. The main output-level control is adjacent.

The levels of both random noise and total noise plus distortion are compared with the audio-output level as input-signal strength increases. Both mono and stereo are shown.

serves to indicate multipath distortion.

A rectangular panel section below the dial area swings down when pressed lightly to reveal a number of the less frequently used controls. There are six light-touch pushbuttons controlling reed relays that perform the indicated switching functions. The pushbutton that turns on the interstation-noise muting circuit works in conjunction with a small knob that sets the muting threshold. The knob is calibrated in decibels relative to 1 microvolt (10, 20, and 30 dB) and allows the muting threshold to be set with fair accuracy between the limits of 3 and 30 microvolts. Another button handles the familiar mono/stereo mode switching, and a third switches the dial and meter illumination on or off. The dial and meter faces are finished in a light color, similar to the panel, with black markings. In a well-lit room, they are more legible with the green illumination turned off, but in a darkened room the scales are more easily read when illuminated.

The meter display button converts the signal-strength meter to read multipath distortion (in effect, it responds to the amplitude modulation imposed on the signal by multipath reception). Any variation of the meter reading with program modulation indicates distortion, which should be minimized by antenna orientation. There are also vertical and horizontal scope outputs in the rear of the tuner which permit more accurate assessment of multipath distortion with the aid of an external oscilloscope.

The Yamaha AUTO-BLEND button activates a high-frequency blending circuit to reduce noise in the reception of weak stereo signals. Many tuners have a similar function, but the Yamaha CT-7000 is unique in that it has two degrees of blending that switch automatically as determined by the strength of the received signal. The switching is electronic, silent, and not detectable by the listener (except in the form of lower noise). The last pushbutton (IF MODE WIDE/NORMAL) gives the user the option of using the full selectivity of the tuner or, if the receiving conditions are suitable, changing the response to a special broad linear-phase characteristic that reduces the normally very low distortion of the tuner to almost unmeasurable values. To do this, the CT-7000 actually has two separate i.f. amplifiers, with normal and wide bandwidths, whose outputs are combined to achieve the wide-response characteristics. A small knob adjusts the audio-output level at one pair of rear jacks up to a maximum of about 2 volts, and a second pair of jacks carries a fixed level of about 0.78 volt. A special low-distortion headphone amplifier with its own separate volume control can drive 8-ohm phones via a jack on the sub-panel.

As mentioned above, the circuits of the Yamaha CT-7000 are quite unconventional, but space does not permit any detailed discussion. It is noteworthy, however, that while the multiplex demodulator uses a phase-locked loop in accordance with the best current practice, Yamaha's circuit employs discrete components instead of an IC. A patented negative-feedback multiplex demodulator circuit reduces distortion well below previously attainable levels. Judging from the schematic, almost half the components of the CT-7000 are used for multiplex detection, which is not surprising in view of the high goals set by Yamaha for its stereo performance.

To obtain over 120 dB of image and i.f. rejection, Yamaha uses six tuned circuits ahead of its mixer, and these are distributed between its two FET r.f. amplifier stages. This calls for the use of a seven-gang tuning capacitor—a device not found in any other tuner we know of. Special i.f. filters were designed, using both ceramic and inductance/capacitance elements, to achieve the combination of linear phase shift (important for low distortion and good stereo separation) and very high selectivity.

When the tuning knob is touched, the automatic frequency control (AFC) system is disabled. When a station is approached with the tuning control, the word STATION appears in dim red letters next to the dial, and if it is transmitting in stereo, the word STEREO also appears at a higher brightness level. When the knob is released, the AFC (which is quite mild in its action) comes on gradually and the STATION indicator glows at full brightness to show accurate tuning.

The rear of the CT-7000, in addition to the connectors mentioned earlier, has an IF OUTPUT which is apparently designed to drive a discrete four-channel FM demodulator if and when such a device becomes available. There is also a single unswatched a.c. outlet. The Yamaha CT-7000 is supplied in a walnut-finish wooden cabinet measuring 17 1/4 inches wide, 5% inches high, and 13 1/8 inches deep; it weighs about 28 1/2 pounds. Price: $1,200.

Laboratory Measurements. Although many of the performance specifications of the Yamaha CT-7000 are better than the rated capabilities of most unmodified laboratory signal generators, we succeeded in confirming virtually every one (a testimonial to our Sound Technology generator as well as to the CT-7000).

Since many of the tuner characteristics are affected by the setting of its i.f. MODE switch, we actually tested it twice, using both normal and wide settings. The IF sensitivity was 2 microvolts (µV) on normal and 2.3 µV on wide, and the 50-dB quieting sensitivity was 2.4 µV (mono) and about 30 µV (stereo) in both modes. The ultimate quieting measured was 72 dB (mono) and 71.5 dB (stereo). We believe that these figures represent the residual noise of the signal generator rather than of the tuner.

The image rejection was greater than the 100-dB limit set by the maximum output of the generator. Alternate-channel selectivity was 82 dB (NORMAL) and 25.7 dB (WIDE). It should be noted that the wide selectivity is rated at 18 dB. The AM rejection was 68 dB (N) and 71 dB (W), both extremely good figures.

The distortion measurements were as (Continued on page 46)
Superb performance - lavish engineering - a new standard in high fidelity

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Hear four cool alternatives at your B-I-C VENTURI dealer. For descriptive brochure, write: SR-1

Yamaha CT-7000 Stereo FM Tuner

(Continued from page 44)

remarkable as Yamaha's specifications suggest. In mono, total harmonic distortion was 0.09% (N) and 0.058% (W). In stereo, where most tuners have at least twice as much distortion as in mono, the percentage figures were 0.15% (N) and 0.068% (W). Our signal generator has a rated distortion of 0.1% per cent, and we have almost never measured tuner distortions significantly lower than that.

The frequency response was flat within ±0.5 dB from 30 to 15,000 Hz. Channel separation in the normal mode was better than 50 dB at mid frequencies, exceeded 45 dB from 30 to 2,500 Hz, and was 32 dB at 15,000 Hz. In the wide mode, the separation hardly varied with frequency, measuring 39 to 40 dB from 30 to 10,000 Hz, and 36.5 dB at 15,000 Hz. In spite of the tuner's very flat frequency response all the way to 15,000 Hz, the 19-kHz pilot-carrier leakage into the audio outputs was unmeasurably low (less than -95 dB relative to 100 cent modulation level).

The stereo-switching threshold was 3 µV and the muting-threshold was calibrated quite accurately over its range of 3 to 30 µV. We checked the operation of the two-step auto-blend circuit, measuring the channel separation and frequency response at 1,000 and 10,000 Hz as we varied the r.f.-input level. With inputs exceeding 900 µV, the tuner checked out with its full separation and frequency response. At 900 µV, the first step of blending reduced the separation to 20.5 dB at 1,000 and 9 dB at 10,000 Hz, and it also attenuated the 10,000 Hz output by 2.7 dB. The next step of blending occurred at 90 µV. It reduced separation to only 8.3 dB at 1,000 Hz and 3.6 dB at 10,000 Hz, and produced a drop of 4.5 dB in the 10,000-Hz response. The capture-ratio measurement (which is very difficult to make repeatably) was the only one in which we could not match or surpass Yamaha's specifications, which call for 1 and 1.3 dB, respectively, at wide and normal selectivity settings. Our readings of 2 and 2.2 dB, even though they did not quite meet specifications, still represent very good performance. Furthermore, the capture ratios were identical at 10 and 1,000 µV—something unique in our experience.

• Comment. We admired the clean, functional styling of the CT-7000 tuner, as well as its total lack of "gingerbread" decoration. Judged by its overall measured performance, the Yamaha CT-7000 is clearly one of the finest FM tuners ever made. In no respect was it less than superb, and in a few areas—notably distortion, image rejection, AM rejection, and pilot-carrier suppression—it was either far better than anything we have previously measured or simply beyond the measurement abilities of the best laboratory instruments. One thing is certain: this tuner is a lot better, measurably and audibly, than the standards of even the best FM broadcast stations, to say nothing of their primary taped or recorded program sources. For this reason we cannot say with assurance that the CT-7000 sounds better than any other tuner we have heard. But we can state that no other tuner in our experience has sounded better than the CT-7000.

As we all know, nothing is perfect, and despite the remarkable electrical performance of the CT-7000, we found a nit or two worth picking. For one, the calibration error of the tuning-dial scale approached 200 kHz at some points. Since the units checked were very early production samples, we assume that this problem will have been fixed by the time this report appears. We also found the tuning dial was sometimes difficult to read from a distance—even up close—if the room lighting was not adjusted correctly.

The internal construction of the CT-7000 is consistent with the image of precision craftsmanship conveyed by its performance and silky operating "feel." The muting system and ease of tuning are both outstanding; there is no trace of a sound until the properly tuned signal "un-mutes." Tuning for minimum distortion is totally non-critical, since even a considerable mis-tuning will result in less distortion than most of the finest tuners on the market can deliver with the most careful tuning. Somewhat to our surprise, even in the crowded New York City FM broadcast area, where it is routine to pick up over fifty FM stations with an indoor antenna, we were able to use the wide i.f. mode and never experience any interference problems. Not surprising, though, given the program limitations, was the fact that there was no audible difference between the two operating modes.

Even though, in comparison with some other state-of-the-art tuners, the CT-7000 lacks visual display features, Dolby circuits, and so forth, in most areas it matches the overall performance of the best, and in some others (distortion and image rejection), it is the best we have tested thus far. The Yamaha CT-7000 is definitely worth considering if you want a tuner so far ahead of broadcast and recording standards that it will not be a limiting factor in your system for years (if ever), if you require the utmost in interference rejection capability, or simply want a beautifully constructed, truly state-of-the-art FM tuner.

Circle 108 on reader service card
TDK ED tape was shown to have the best frequency response of four leading cassette tapes tested recently by an independent laboratory. The other three were large-selling popular competitors, retailing for about a dollar less than TDK ED. As you can see, their output tended to fall off noticeably in the high frequencies.

Even a slight loss of high-frequency reproduction can make a difference in clarity and detail to a discriminating ear. That quality of life that music should have just won’t be there—the sheen on the violin note, the glitter on the cymbal finale.

Conclusion? If you’re serious about the sound of music, try a TDK ED tape next time. It offers you that quality of lifelike brilliance you might otherwise have to buy a ticket to hear. And we think that’s worth an extra buck.
TAPE PIRACY: THE HIDDEN COSTS

By Fred Petras

"Latest tape hits half price" announced big signs at each end of a fifteen-foot-long, two-foot-deep display of cartridge and cassette tapes. I looked over a series of cardboard boxes of tapes, neatly arranged by category—Rock, Folk, Country/Western, MOR, Party, etc.—and sure enough, there were the big names, the big "hit" albums, just as I might see them in a record store. But this was not a record store: it was a flea market at a drive-in movie site in Valley Stream, New York.

I looked a bit closer. Something was different. That Dylan album. . . I remembered the jacket's being in color. This one was in black-and-white. And the name Columbia Records was nowhere to be seen. In fact there was no brand name. And there was a legal-sounding statement about copyrighted materials. Then it hit me: I was looking at the treasure trove of a tape pirate—someone who illegally duplicates major-brand recorded tapes and sells replicas of them. In effect, I was reading the Sunday paper, chomping on a cigar, relaxed. Of course. Business is great. Enjoy! And this coming Saturday Kidd will head for Englishtown, New Jersey, for the biggest market of all. He'll pull in from $800 to $1,000 if the weather is right.

The foregoing is a typical scene today. "Typical last year, too, and the year before," back to March 1972, when STEREO REVIEW ran an editorial on the matter and an article entitled "The Great Tape Robbery." And even further back, to February 1970, when STEREO REVIEW brought the matter of piracy to the attention—and conscience—of the American public in articles entitled "Piracy in the Record Industry" and "Piracy and Ethics." But Kidd and his ilk continue to operate, and, despite the awareness that the pirate tapes they buy are inferior as well as illegal, music buffs are buying more of them than ever, simply because they are cheaper than legitimate tapes. According to Jack Francis, chief investigator of the Anti-Piracy Intelligence Bureau of the R.I.A.A. (Recording Industry Association of America), today's tape pirates are now garnering $250 million a year, versus $150 million in 1971 and $100 million in 1969.

How can the pirates continue to operate so openly, not only on the "high seas" of flea markets, swap meets, shopping centers, county and state fairs, and various other places where the public gathers, but indoors as well, in record and music stores, drug stores, discount stores, and others of every size and degree of respectability?

Simple. Many state and county law enforcement officials are not aware of state laws on piracy. Some who do know the law yawn in its face, feeling it is a "peanuts" misdemeanor and therefore not worth enforcing. And, according to Francis, a tape piracy case takes as much time and paper work as a felony case, often: in one case in which the R.I.A.A. was involved, for example, just taking inventory of over 50,000 seized tapes kept three people totally occupied for a full week, some twenty miles away, at Huntington. Well, well. There's Kidd again, all set up, his player flailing the air with bluesman music. He's reading the Sunday paper, chomping on a cigar, relaxed. Of course. Business is great. Enjoy! And this coming Saturday Kidd will head for Englishtown, New Jersey, for the biggest market of all. He'll pull in from $800 to $1,000 if the weather is right.

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Tape piracy is cheating the organization of $1 million annually, about 11 per cent of its income. Also involved in the war are the Country Music Association, the National Association of Recording Merchandisers, and other industry groups, as well as legitimate tape dealers whose business has been hurt and concerned private individuals. Some are acting as "vigilantes," alerting local and area law officials to tape pirates.

At the New York Attorney General's hearings on tape piracy, a major point made was that the public must be made aware of tape piracy and pirated tapes as a first step to eliminating them. Said Lefkowitz: "One purpose of our hearing is to warn the consumer so that he may become aware of the existence of pirated tapes and be able to spot the illegal recordings." A variety of pirated tapes, bought at twenty-one New York City area stores, was displayed at the hearing. Common to many of these were shabby packaging, artwork that bore no relation to the tapes' contents (researcher Joel Shoenfeld reported that he saw a single piece of art used on over two hundred different albums in one store), type-written labels, and sound reproduction ranging from fair to barely distinguishable when compared with the legitimate version of a tape.

The tapes were also different from legitimate versions by reason of their liberal use of legal-sounding statements—often one or two per package. Typical were: "This tape recording has been produced in full compliance with Section 101E, Title 17, United States Code, U.S. Copyright Act, amended October, 1971," and "Notice of intention to use copyrighted materials filed where necessary. All statutory royalties paid." Shoenfeld told the hearing that "Legitimate companies do pay royalties and need not say this on their packaging."

Aiding the pirates in their wholesale plundering are the many retail stores that carry pirate booty. In some cases the dealers are fully aware that they are selling contraband. In others they take a "look-the-other-way" attitude. A few dealers may not even know they are engaging in illegal activity by selling pirate tapes.

Also aiding the pirates are consumers, many of whom, it must sadly be admitted, carry more than the usual drop of larceny in their veins. Typical was the response of one young man I approached as, four tapes in hand, he left a Kidd display set up at the Englishtown, New Jersey, flea market. When I suggested that he had just bought stolen merchandise and had thus ripped off several people in the process, he snorted, "Stolen goods? You're putting me on, man! A rip-off? No way! I know from nothing where these tapes come from. All I know, man, is they're a bargain, and I dig bargains!"

A few more attempts to set Kidd's customers right elicited similar self-righteous comments. Finally, the sixth person I approached—a middle-aged housewife—gave me a quizzical look. "Illegal? Gee, I didn't know that. Then I don't want them. I'll take them back and get my money back." She returned to the stand. After about five minutes, during which the woman pointed me out, Kidd gave in, handed the woman some money, stabbed two tapes back into the display, and looked menacingly in my direction. "Hey, you! You looking for trouble?" he shouted.
Bob Dylan once said (and I paraphrase) that a lot of people are afraid of The Bomb, but a lot of people are afraid to be seen reading Modern Screen magazine. Some wag at Esquire opined that women have it rough in this society—they're forced to work at menial jobs for less pay than men, to endure abuse from leering construction workers, and to read magazines like Ms. Both statements are true, although you're probably wondering what their connection is. But bear with me, and all will be revealed.

A few weeks ago, while at my local newsstand perusing the latest issue of Swamp Thing, I happened to notice that the then-current edition of Ms. featured a cover story entitled "The Rolling Stones Gather a Feminist." My curiosity was immediately piqued—I knew I just had to read it—but I soon found, to my embarrassment, that try as I might I couldn't bring myself to be seen buying a woman's magazine. I felt, in fact, a bit like Woody Allen in that scene in Bananas where he tries to buy a porno book. Eventually, however, I hit upon the happy solution of having a female friend purchase it for me, and shortly, in the privacy of my own room, I got, as the kids say, into it. Golly gee, but don't those sexual stereotypes we're conditioned with die hard!

At any rate, I read the piece (and as much of the rest of the magazine as I could take without being reduced to fits of uncontrollable laughter) and was, of course, vastly relieved to discover that, yes, it is okay after all to like the Rolling Stones, and that my consciousness does not need any particular raising even though I own both the English and American versions of "Aftermath." I can't tell you how reassuring that was.

The article, by Karen Durbin, was, however, about as silly a piece of revisionist history as I've seen recently, and I'm afraid it was sadly typical of most feminist (as opposed to, say, female) criticism of any of the arts, rock being merely one of the easier targets. Ms. Durbin (and this is in 1974, mind you) has finally realized that Stupid Girl is no more of a put-down of all women than Carly Simon's You're So Vain is a put-down of all men. After recovering from that blinding bit of insight I was naturally pleased to discover that somewhere there is a feminist who does not believe that Mick and Keith really want their women to walk a discreet six paces behind them. I am, however, more than a little disappointed that as yet no feminist critic has had the nerve to take on someone like Joni Mitchell, who in my opinion truly insults women in ways that Jagger and Company have never dreamed of. Really, doesn't it strike you as a bit odd that a whining neurotic with only marginally repressed groupie tendencies is being touted as a model for the contemporary liberated woman? Oh well, I suppose that's another column. In the meantime. Rock On, Ms. Durbin.

The trouble with interviews is... well, it's like this: if you're interviewing someone whose work you don't much care for, the enliven the sheer prospect of talking to him or her induces before the actual event is fatal, and if it's someone you're a fan of, it's equally unpleasant because whatever fantasy picture you've nurtured over the years is bound to be different, and disappointingly so, from what the individual is really like. I mean at this point I don't ever want to meet, say, the Stones, because it would be just too disillusioning, although I suspect the Who would live up to my expectations and I except them from the above. (Now who's the groupie?) Anyway, it's a real occupational hazard. For instance, I recently talked to Roger (né Jim) McGuinn, and although he was just as nice as could be, it was crushing. I was weaned on the original Byrds, and to this day consider their early albums to be among the greatest works of music since the Reformation; I played Byrds music in a seemingly endless succession of high school and college bands, and I am even now in a group whose lead guitarist is one of the last remaining musicians to use a Rickenbacker twelve-string.

So you can imagine that when Rog's PR firm approached me about doing an interview, I was, to say the least, excited, and the fact that I had been turning handsprings over his new Columbia album ("Peace On You," and it's really swell no matter what Joel Vance says) was just one more incentive. So, with that previously mentioned lead guitarist firmly in tow, I trotted off to Rog's hotel, trembling at the thought of finally encountering one of the major influences on my life. To my surprise, McGuinn turned out to be a very friendly guy (I had always pictured him as moody and arrogant), humble (seemingly unaware of how the music he has made actually is), and incredibly pragmatic ("I'm a businessman, really," he told me). He was so unpretentious, in fact, that I almost began to be annoyed; I was hoping for some kind of display of the proper superstar egocentricity. For example, when I told him that the band he had trotted around with on his previous tour as a solo act had been godawful, he agreed with me immediately. What kind of behavior is that, I ask you?

Well, for what's it worth, I went to see him perform later that night (with a new band, recommended to him, he told me, by the Eagles, whose own music of course owes him a tremendous debt), and he was absolutely inspiring fine. His new sidemen do an impeccable imitation of the latter-day Byrds, especially the second guitarist, who has Clarence White down pat, and they all sing well, if not as supernally as the original lineup, which is something the Byrds were not especially noted for in their final days, despite their otherwise consistently splendid musicianship.

All in all, I had a marvelous time during the show, and in a small measure I was able to forget my disappointment of the afternoon—what the heck, at least I got an autograph out of him. I guess the bottom line is that D. H. Lawrence aphorism that Greil Marcus is so fond of quoting: "Never trust the artist—trust the tale." McGuinn may have blown what image remained of him for me, but when I go home I can still listen to "Fifth Dimension" or "Notorious Byrd Brothers" (or an incredible double English-only CBS compilation called "History of the Byrds," which you should not be without for a moment) and come away in awe of the music they contain. So who gives a poop about image anyway? Of course, if next week he shows up with shaved eyebrows and a pair of sequined platforms... but we'll cross that bridge when we come to it.
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T he application of scientific objectives and methods to music has never produced exactly the most exalted of results, but a recent study, described in a bulletin from the Office of Public Information of Columbia University, certainly provides some of the most unlooked-for findings of recent years. Professor Thomas G. Bever and graduate student Robert J. Chiarello of the Columbia University Department of Psychology have found, through the testing of thirty-six subjects, that "Musically experienced listeners recognize simple melodies better in the right ear than the left, while the reverse is true for musically naive listeners."

Until now, apparently (although I didn't know it), it was believed that most people hear music better with their left ears. But, the new study reports, that was because investigators had tested mostly people who were musically inexperienced. When the listener has had music training, and if he plays or sings himself, the right ear becomes the dominant instrument of hearing music. The reason for this lies in the theory that "in most people the left ear is connected functionally to a part of the brain [in the right hemisphere] that processes incoming information in wholes, while the right ear is connected to a different part of the brain [in the left hemisphere] that analyzes the parts of the whole." Since musical training provides or enhances the ability to listen analytically to music's "parts," musicians make the left-to-right switch. They do, that is, if they are right-handed; left-handed musicians would presumably make the reverse switch.

The investigators tested fourteen naive and twenty-two experienced listeners with various sequences of notes, asking them to decide if a particular long sequence before or during the course of experiments. "Our interpretation," said the psychologists, "is that musically sophisticated subjects can organize a melodic sequence in terms of the internal relation of its components... Dominance of the left hemisphere for such analytic function would explain dominance of the right ear for melody recognition in experienced listeners; as their capacity for musical analysis increases, the left hemisphere becomes increasingly involved in the processing of music." Professor Bever has now gone on to investigating the possibility that the ears are similarly specialized in their function. It seems to me, however, that he has left behind him a host of questions and implications that will be polluting the musical atmosphere for years to come.

For example, can we now determine the capabilities of music critics by simply observing whether they seem to be listening primarily with the left or the right ear? In my own defense, I must report that at concerts I invariably rest my chin on my left hand, the fingers partially covering the left ear, thus keeping the right ear free and tilted slightly toward the music. On the other hand, I seem to remember a critic of the defunct New York Herald-Tribune who constantly fell asleep in Carnegie Hall with his head cradled in his right hand. Obviously, he was not listening analytically (if he was listening at all), and his review the next day should properly have been taken only as the most general and undifferentiated (naive) reaction to the music played, rather as if he were the sports editor instead of a music critic.

But such questions are only the beginning. Consider the layout of the Classical orchestra. The first violins are invariably placed at the left-ear side of the platform, while the seconds occupy the right-ear side, with the cellos and violas in middle ground. Composers such as Haydn, being practical men of music, must obviously have intended us to hear the melodies as wholes from the first violins, while the seconds picked apart the details, the cellos and violas supplying the bass and harmonic background. The present-day arrangement of symphony orchestras, though, posits the second violins next to the firsts, on the left-ear side, and obviously destroys the composers' intentions. But perhaps the orchestra today is purposely designed for musically naïve or, as we might now say, the left-ear people; some musicians, of course, have thought so for years.

The ramifications when we come to the reproduction of music become even greater. The idea that we should have two equal speakers for stereo reproduction can now be seen as passé and psychologically wrong. Ideally, the right-ear speaker should have a high degree of "presence," to permit us to hear in greatest clarity, and right-earedly, the musical details our right ears (and left hemispheres) are clamoring for, while the left-ear speaker's response curve should dip somewhat in the mid-range in relation to both highs and lows to give us the proper overall ambiance of the sound. But, at least, should be the proper setup for musically sophisticated or people with a tendency toward right-eariness. The musically naive listener might well decide to save a little money and concentrate speaker quality on the left-ear side of his living room, and your really iconoclastic left-earer might go so far as to listen to stereo through a single speaker, placed to his left, of course, unless he were left-handed, in which case he would place it on his right.

B ut I suppose the greatest problems that will result from this somewhat untimely psychological discovery are social: it will mean the further polarization of a society already rent by oppositions of black and white, high-brow and low-brow, liberal and conservative, rich and poor, into left-eariness and right-eariness. One can already see the way things will break down, the prejudice, the irrational actions, the social stigma, the earcap under which those deprived of reasonable musical instruction will labor. One can see emerging a latent Middle American hostility toward those right-earled intellectuals (it's only a cover-up: they're working from the left hemisphere after all), and the falling down of second-ear opinions from naïve demagogues to an even more naïve public. Will we any longer trust our own ears, left or right? Or will we merely begin to trust the second-ear opinions of those who hear on the same side of the fence as we do? Really, the prospect is not an earsome one, and one wonders if scientists, instead of being encouraged, by foundation grants and such, in these potentially harmful pursuits, might better be dissuaded by having forced upon them sabbaticals in which to reevaluate their goals and desires, and maybe to pursue a little harmless earcraft.
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Check it out with your Sylvania dealer. After all, now that we have everything, it's time you seriously considered having us.

FALLA'S NIGHTS IN THE GARDENS OF SPAIN

The history of music is so full of examples of composers who were extraordinarily prolific—Vivaldi, Bach, Haydn, Mozart, Schubert, Milhaud, and Villa-Lobos come immediately to mind—that it is difficult somehow to adjust to the reality that not all the great composers of Western civilization produced enduring masterpieces in awesome profusion. Perhaps the most vivid example of a great composer with a very small output is the Spanish master Manuel de Falla. Falla came to composing at a fairly late age—he was nearly thirty before his first score, the two-act opera La Vida Breve (Life Is Short), announced to the world that an important new creative voice was asserting itself—and during the remaining forty-one years of his life he produced only eighteen compositions. Nineteen works represent his total output (one of them, the opera-cantata Atlántida, was never finished), yet Falla is considered by many to be one of the great creators in the history of the art.

One need look no further than Falla's early "Symphonic Impressions for Piano and Orchestra" titled Nights in the Gardens of Spain to discover the reasons for this. The music is atmospheric and evocative, imaginative and throbbing with vitality. At the same time, its formal structure is straightforward, its thematic material is memorable, and it is brilliantly scored for both the solo piano and the orchestra.

Nights in the Gardens of Spain began its musical life in 1909, while Falla was living in Paris, as a group of nocturnes intended for solo piano. The French writer and friend of Falla, Georges Jean-Aubry, reported that Falla was hard at work on his nocturnes, "but he was never satisfied. Each season we waited in vain for the first performance. These nocturnes began to be legendary.

When World War I broke out and Falla returned to his native Spain, the nocturnes were still unfinished. He had been advised to enlarge the scale of the music; ultimately the Spanish pianist Ricardo Vílites suggested a setting for piano and orchestra. Falla then returned to the music and completed the score at what for him was an unusually fast pace: it was finished in 1915 and performed the following year in Madrid.

In describing Nights in the Gardens of Spain, Falla said that the music has no pretensions to being descriptive: it is merely expressive. But something more than the sounds of festivals and dances has inspired these 'evocations in sound,' for melancholy and mystery have their part also." W. R. Anderson, a distinguished British author and critic, described Falla's Nights in the Gardens of Spain in effusive terms: "We hear the first nocturne, In the Generalife—the hill garden at Granada with its fountains and ancient cypresses contemplating the city below. . . . In the influence of the night, the fountains, dreamy patios, melancholy thickets and flowering pomegranates in the summer palace of the Moorish sultan, we can feel a sense of mystery and the ghosts of the past. . . . The hazy sound of the orchestral horn ceases, and we move in imagination to another garden, for the second nocturne, the Dance in the Distance. About us again are the orange trees, the myrtles and the palms, the splashing waters. Mandolins and guitars play scraps of Oriental-sounding tunes, coming nearer in the gentle wafts of tone now upborne, now falling, on the light breeze. In the last piece, we are In the Gardens of the Sierra de Córdoba, on the mountainside, at a party where surely the gypsies are playing, singing and dancing. Here is music wilder, rougher than the sounds of festivals and dances merely expressive. But something more than the sounds of festivals and dances has inspired these 'evocations in sound,' for melancholy and mystery have their part also." W. R. Anderson, a distinguished British author and critic, described Falla's Nights in the Gardens of Spain in effusive terms: "We hear the first nocturne, In the Generalife—the hill garden at Granada with its fountains and ancient cypresses contemplating the city below. . . . In the influence of the night, the fountains, dreamy patios, melancholy thickets and flowering pomegranates in the summer palace of the Moorish sultan, we can feel a sense of mystery and the ghosts of the past. . . . The hazy sound of the orchestral horn ceases, and we move in imagination to another garden, for the second nocturne, the Dance in the Distance. About us again are the orange trees, the myrtles and the palms, the splashing waters. Mandolins and guitars play scraps of Oriental-sounding tunes, coming nearer in the gentle wafts of tone now upborne, now falling, on the light breeze. In the last piece, we are In the Gardens of the Sierra de Córdoba, on the mountainside, at a party where surely the gypsies are playing, singing and dancing. Here is music wilder, rougher than before, still more deeply rooted in the East, in impassioned feeling and primitive power.

Six highly rewarding recorded performances of the Nights are currently available, two of them by a pianist whose association with the music goes back to its very first performance: Artur Rubinstein was a close friend of Falla's and was present at the Madrid première of the score, soon afterwards presenting the Western Hemisphere première with the Teatro Colón Orchestra in Buenos Aires. Of the two extant Rubinstein recordings (there was also an early one, made in the 1940's with Vladimir Golschmann and the St. Louis Symphony), I prefer the performance from the late 1950's with Eugene Ormandy and the San Francisco Symphony (RCA LSC 2430) to his re-recording of more than a decade later with Eugene Ormandy and the Philadelphia Orchestra (RCA LSC 3165, cassette RK 1165, reel ERP A 3165C); the collaboration with Jorda yields a more flexible and tonally varied performance.

Ormandy and the Philadelphia Orchestra are also heard in Philippe Entremont's recording (Columbia MS 6629), a clear-textured and vivid account of the music, with brighter orchestral reproduction than in either of the available Rubenstein recordings.

Two of the remaining three recorded performances are by distinguished Spanish pianists. Gonzalo Soriano's (London CS 6046, cassette M 10010, reel L 80010) was made in the 1950's, early in the era of stereo technology, at about the same time as the Rubinstein-Jorda performance. The sound now seems rather undernourished, but the performance (with the late Ataulfo Argenta conducting the National Orchestra of Spain) is a totally committed and idiomatic one. Alicia de Larrocha is the other Spanish pianist currently represented with a recording of Nights in the Gardens of Spain (London CS 6733, cassette M 10522, reel 80252). She, too, delivers a sensitive and intuitively inflected performance. My one reservation has to do with the reproduction: ordinarily I favor clear, bright sonics, but here the very clarity of the sound destroys some of the atmosphere of the music.

Finally we come to the recording by the Swiss pianist Margrit Weber, with Rafael Kubelik conducting the Bavarian Radio Orchestra (Deutsche Grammophon 139116). This, too, is a sensitive, deeply felt performance (and, I must add, rather unexpectedly so), with recorded sound that I find the most satisfying of the lot. In addition, the disc offers the most unusual coupling of all—a performance of one of the last works by the currently underrated Czech composer Bohuslav Martinu, his Fantasia Concertante for Piano and Orchestra. All things considered, then, I think I would recommend the Weber-Kubelik recording above the others.
FLOW TO MAKE YOUR MARK ON THE FOLK MUSIC PROCESS
WITH "THE ELECTRIC EFFECT OF THE MALE ALTO C SHARP"

BY NOEL COPPAGE
John Jacob Niles was wearing a red bandanna that set off cloud-white muttonchop side whiskers slightly more luxurious than Martin Van Buren's, but he looked small for a living legend, small and frail. Or so I thought before I had seen him move or heard him speak. I had looked across the cool, dim living room in his house beside a creek named for Daniel Boone, my eyes stopped-down for the hazy Kentucky sunshine, and found him standing there. But then he moved, the way I'd always guessed an Indian medicine man moved, swaggering a little but purposeful as an old cat. And when he spoke, he put a grand, hand-rubbed "dear sir" in the middle of the sentence. He was eighty-two years old and had started collecting folk music, prying it out of the crinkly, toothless mouths of grey old ladies in the Cumberland Mountains, sixty-five years ago. He had been called "the dean of American balladeers" by Time, had hobnobbed with Sergei Rachmaninoff and Charles Ives, Pete Seeger and Earl Scruggs. He had composed a symphony, given Rachmaninoff and Charles Ives, Pete Seeger and Earl Scruggs. He had composed a symphony, given Rachmaninoff and Charles Ives, Pete Seeger and Earl Scruggs. He had composed a symphony, given Rachmaninoff and Charles Ives, Pete Seeger and Earl Scruggs. He had composed a symphony, given Rachmaninoff and Charles Ives, Pete Seeger and Earl Scruggs. He had composed a symphony, given Rachmaninoff and Charles Ives, Pete Seeger and Earl Scruggs. He had composed a symphony, given Rachmaninoff and Charles Ives, Pete Seeger and Earl Scruggs. He had composed a symphony, given Rachmaninoff and Charles Ives, Pete Seeger and Earl Scruggs. He had composed a symphony, given Rachmaninoff and Charles Ives, Pete Seeger and Earl Scruggs. He had composed a symphony, given Rachmaninoff and Charles Ives, Pete Seeger and Earl Scruggs. He had composed a symphony, given Rachmaninoff and Charles Ives, Pete Seeger and Earl Scruggs. He had composed a symphony.

I found John Jacob Niles about as alive as any of us ever get, and I found him talking, singing, thinking about death. But first we talked about dulcimers. He has tampered with the formula for making the mountain dulcimer, modifying its parts and proportions to suit himself. In its simplest form, the Appalachian dulcimer, relative of several European instruments, has a delicate soundbox, shaped like a cross section of a skinny hourglass, and three strings. One of these usually is fretted, and the others are left open and strummed occasionally in droning, one-chord accompaniment. Niles' dulcimers—he had four of them around the house but in his day has built more than thirty—are large and imposing. One he built by cutting down half of a celery stalk. They have eight strings each, an additional fretted "melody" string and four additional low-pitched drones that are tuned in pairs to the two tones of a kettledrum.

"I never worried much about methods," he said, his thumb drawing off a prolonged arpeggio. "I was interested in results. . . . Hear that? I can't tell you how excited I am by sound." His voice went up and down, loud and soft, like an Englishman's, and now and then he would laugh, ha ha, in short bursts, but he spoke with no accent I could identify. He sounded like (I haven't thought of this term in years) a citizen of the world, the way they said Browning was.

"I got the tuning for these last four strings, my dear young man, by sitting next to the timpani in a symphony orchestra," he said. "But we go back further than that. When I was only four or five, I learned to play the piano by standing beside my mother, the keyboard coming up to my chin. I was too small to sit on the stool. I stood at the bass end of it and played along with her, and that was where I got my feeling for these bass notes."

The drones went bim-bim, domm-domm, ending on B-natural, a ghostly, ambiguous note that chanting monks have always avoided. It seemed, like the haunting tenor voice of John Jacob Niles, to have floated out of the mist and superstition of the Southern Appalachians.

I was thinking, in fact, of how that sound reminded me of the eerie mountain atmosphere that Helga Sandberg had caught in a short story called "Witch Chicken" when I realized Johnny Niles had asked me a question. He was asking if I knew the chicken man. He meant Harlan Sanders, Colonel Sanders, the Kentucky Fried Chicken man.

"He's a good friend of mine," he said, "and quite a lively old boy. Very quotable. One day he said to me, 'You know, Johnny, there aren't too many smart people in Kentucky.' He said, 'I can think of two. One is you and the other is me.'"

And then, out in his study, a converted pony barn he sarcastically calls "my hermitage," John Jacob bounced my consciousness off the wall again.

"You may observe in my speech, dear sir, that I use almost an extenuation of the iambic pentameter," he said, and took down a red notebook to read some poetry he had written (for the beginning of his autobiography) in that scheme of rhythm and meter.

"I think at long last it is," he said, "At first it led us to the psychiatrist's couch and to the insane hospital, but now I think we are hurdling it."

He paused, then went on in a tone no less objec-
tive-sounding (I know, for I have double-checked my little cassette recording of this a hundred times), “Now, understand, I am in a state of depression at this moment that is unbelievably deep, so deep that I consider self-destruction almost every day—at least three, four, five times a day. The depression I suffer now is one that is self-created by hand, by my trying to live in a period of my early days in music when I was so set-upon and so unsuccessful and had no one to inspire me any longer. I had lost the only girl I gave a damn for. I had given up the only girl in France whom I considered even worth considering. She was a fabulous pianist. . . . Oh, she was magnificent. I had lost a wife during the war. . . . She was behind me and I couldn’t even find her in my memory. My mother and father were far from me, I was alone [at the Cincinnati Conservatory of Music, more than fifty years ago] among people who were constantly advising me to give up music and get a teacher’s certificate and go into the public schools. And I refused them. I had such courage. . . . I haven’t got that kind of courage now.”

Well, Niles has trafficked in words about death for two-thirds of a century; the ballad plots are, as he says, “as a rule rather tragic and concern bloodshed.” As a poet and philosopher, he has been heavily into existentialism; an avid reader of Martin Heidegger, who said the basic metaphysical question is “Why is there something rather than nothing at all,” Niles has slipped unobtrusively into one poem the idea that “nothing is everything else.” And he has been heavily into Zen. The late Alan Watts, whom lazy Western minds such as mine considered Our Man in Zen, talked up the great value in contrast, opposites, white being meaningless as a concept unless there is also black, and so forth, and he agreed with Pogo (as written and drawn by the late Walt Kelly) that if we talk about life we gone have to talk about death too. I suppose that any person in his eighties, philosophical or not, thinks about it a great deal, wonders how long the actuarial statistics can be defied. And I wonder—I can only guess, in dealing with someone who has half a century of experience on me—if John Jacob Niles may draw some energy from the heightened sense of contrast that (as they say in motor racing) exists at the very brink.

In any case, the life-and-death contrast-unity concept is useful in considering why the point of Niles’ work has been missed so many times. It could be simply that he has been more interested in the life of folk music than the death of it. As long as a thing is alive it changes, but those missing the point—mostly academics, as usual—kept looking to Niles the researcher to show proper humility toward the Scientific Method and present the keepers of the record with fixed, static, Authentic Versions pinned down like the bugs in an entymology lab. And, oh, they had themselves a fine time cluck-clucking over the way the man would go out among the folk, collect the songs, and then tamper with them, change them.

They missed, while they were at it, two points, one by not listening well to either the folk or the music and the other by not listening well to Johnny Niles. The folk tamper with everything they pick up, and never claimed otherwise; as Niles says when he introduces the marvelously gory murder-suicide ballad called Bonnie Farday: “I am really bothered when sweet people come to me and say, ‘Ah, I can just hear those men, those knights of the sword, around the campfire in the tenth century, singing these magnificent things.’ This is wishful thinking: in the tenth century our music couldn’t have been written down, and had it been it certainly would not have survived until now. It would have been destroyed. Music as we know it is a relatively modern thing. The only thing that could remain is the legend, the text, and that is being made over every morning, noon, and night.” And Niles has made it clear enough that he, personally, never intended to be merely the human forerunner of the tape recorder or the freeze-drying machine; describing the ambition he began trying to articulate at age five, he puts priorities in this order: “I wanted to be a public performer, a poet, a writer, and an actual, creative musician.” Johnny Niles didn’t set out, at age fifteen, to be a functionary in the folk process—he set out to find himself a repertoire. The blurb on the jacket of the recording “The Best of John Jacob Niles” (Tradition 2055E) quotes him as saying, “. . . I’m convinced that a concert singer who is not also a composer and a poet is at a definite disadvantage. Perhaps this point of view goes back to my early years: when I was a child growing up in Kentucky, we made what we needed.”

And yet he has been an instrument in the folk process, if not a symbol of the whole thing, and he has always respected it. When he cast melodies at the top of his vocal range and then some, forcing himself into an elaborate falsetto, he was doing what the mountain singers tried to do—as well as making use of his own discovery of what he calls “the electric effect of a male alto C-sharp.” When he has drastically changed a melody, as he did in the case of Black Is the Color of My True Love’s Hair, or when he has just about invented one from the ground up, which was more or less the way of his
number two and number three classics, I Wonder as I Wander and Go 'Way from My Window, he has plainly labeled them "composed pieces" in his talking and writing.

"I think continually about the part I have played in this enterprise," he told me. "You can't fool around with it. It has to be treated gently. . . ."

But being a public performer was first on his list, and he obviously loves performing, whether the audience is thousands of persons or one. He seems to take special pleasure in the fondness young people, particularly "hippie types," feel for him.

"I never had any generation-gap problems," he said, "perhaps because I never claimed to know more about their own private worlds than they did. I always told them, 'You may be right if you think I'm an old fogy and not relevant and all that; you tell me.' Maybe that sets up a situation in which you're not crowding one another and can see each other more clearly. I'm not quite sure. The 'hippie'—I don't know what to call him—has been good to me. He's tried to do something enormously curative—girls let their hair grow down into their soup so they won't be identified with the well-dressed people who have messed up so many things. . . . Young people is where we've got to start—kindergarten kids is where we've got to start. We can't work on the big-shot businessman. He'll be amused in the wrong places."

And was he keeping up with, uh, commercial music, let's call it, during the folk-like boom of the Sixties and the troubadour population explosion that followed? "I would say I was to some extent, yes," he said. "My goodness, some of those fellows made a lot of money out of it, didn't they? And I didn't make a dime!" Many owe him royalty money without even knowing it, assuming such famous songs as Go 'Way from My Window had come from the same vague sources as Barbara Allen; a few, like Joan Baez, bothered to find out. "In the long run, though," Niles said, "some of those people today live like dogs—and this is rather a first-rate dog's hovel you see here."

It is, indeed, a nice set of digs, not an imposing house but a rambling structure that started wandering up the hill in 1939 and grew its final wing in 1948; now it is U-shaped with an inner court. Niles laid many of its stones and is particularly happy with his flagstone floor in the music room and the
large brick fireplace he built at one end of it. And its inhabitants do include a Labrador retriever named Rosie, who came up at that moment and, in that wheezy way dogs have of purring, said, “Heee heee heee.”

The house is decorated with Sundays-with-the-oils paintings, mostly landscapes, another thing Niles does (Niles, a great lover of French who says he often thinks in French, calls himself “un peintre du dimanche”). And three of the doors are decorated with thoughts etched in hardwood.

Johnny Niles, into existentialism and Zen, has engraved in the oaken door to Rena’s study the prayer of St. Francis of Assisi. He carved the lettering to look like handwriting and he festooned the borders with filigree and floral doodads. “You’ll find when you go to carving wood,” he said, “if it’s like our wood, our oak, that you carve for ten minutes and sharpen the tool for twenty minutes.”

He seems fascinated with Catholics in a lip-pursing, what-mischief-are-they-up-to-now sort of way. When I, answering his question, said no, I wasn’t one, he said, “Haha! Good!” But it is not Niles the philosopher affronted by doctrine or liturgy of the faith, it is Niles the historian still able to become exercised over the antics of the Catholic Church, particularly during medieval and Renaissance times. “Read history!” he says. His only collaborator was rather irrevocably Catholic: Trappist monk Thomas Merton, who lived and wrote in a monastery nearby in Kentucky. Niles started setting Merton’s poems to music about 1967 and eventually composed melodies for twenty-two poems, helping create two eleven-song Niles-Merton cycles. Merton died before Niles’ work was completed, but when he heard the beginnings of the Niles-Merton cycles, Tom Merton wept and hugged Johnny Niles.

I heard suggestions of some of those melodies—and I heard country dancing and spinning-wheel hums and the way an old woman quilting might whistle through her gums—in a tape recording of a Niles ballet suite. He played it for me after we lunched on home-grown vegetables, and I became engrossed in another Johnny Niles drama. The tape was recorded when a University of Colorado student named Bethany Ann Bush played the just-finished piece for her final recital. Niles and others want to arrange the suite for orchestra now, but his copy of the score is gone. Burglars took it—along with the scores of some of his other longer, classical pieces—seven years ago when he and Rena were off at a concert marking his seventy-fifth birthday. Bethany Ann Bush had the only other copy of the ballet score, and Bethany Ann Bush seems to have disappeared (where are you, Bethany Ann?).

Niles has been drawn toward both art music and folk music almost since birth. His mother introduced him to the piano and to Bach in their Jefferson County home, and his father, a ballad singer and square-dance caller, introduced him to the dulcimer and told him he might take his folk-music enterprise all the way to Cincinnati, if he worked at it. By the time Johnny was installed in the Cincinnati Conservatory, he had filled several loose-leaf notebooks with songs, tales, and observations out of the Cumberlands—and he had been through World War I as a lieutenant in the Air Corps and had studied in France at the Université de Lyon and at the Schola Cantorum in Paris with Vincent d’Indy.

And in New York he knew Ives, who, he said, had devised creative new ways of cutting out the establishment, or those members of it who kept his music from being played.

“Charles used to say to me, ‘Johnny, why don’t you give up this folklore nonsense?’” Niles said. “He said, ‘If you’ll work with me, I can show you how to put it together. You already have a good start, you’re very perceptive’—he had heard Black Is the Color of My True Love’s Hair and he thought that was it. He wanted me to be a classical composer in his way, in the modern sense. He said, ‘For God’s sake, don’t let them, the publishers, demand that you end everything on the do. You’ve gotten away from that now. . . .’”

I gather that Johnny Niles was pointed away from that—the comfortable convention of bringing
a melody home to the tonic chord — by a number of things, including the sayings of his father, who advised, “End at the end.” But Johnny got out at an early age into a world of what now, even in the mountains, would seem to be strange influences. After graduating from high school, he took a job as an adding-machine repairman that sent him to the little country stores dotted throughout the Cumberland and put him in touch with the people in those regions. And he had already taught himself how to write down music as well as words. In the late Twenties and early Thirties, the conservatory-educated John Jacob Niles was traipsing the mountains again, this time in the company of Doris Ulmann, whose remarkable photographs (Niles wrote the introduction for her book, The Appalachian Photographs of Doris Ulmann) say almost as much about the mountain people, and say it almost as ruthlessly and compassionately, as Niles’ balladeering does.

Johnny Niles and I had one additional brief conversation about death — destroying oneself — in which I blew an opportunity to bring in a broadened meaning I had in mind for this business of ending on the do . . . which I think I surely would have muddled anyhow. It did seem to end with at least a knee slap on the back-beat, as he said, “Well, I do have a lot more work to do. Sometimes I just hope I can last long enough to get it done. You know that long-winded blessing I recited at lunch? The way it ends? — . . . give us the power, the imagination, the willingness, and the guts to do the job that lies immediately before us.” I think that’s it, the focal point: it takes guts.

And we had one additional brief conversation about life — keeping oneself nurtured — although I probably thought at the time it was about art, or some other fancy but narrow aspect of the folk-classical, indoor-outdoor, rural-cosmopolitan, racy-reverent world of John Jacob Niles. I now think that conversation reached a conclusion somewhere near the beginning, when I asked John Jacob Niles if he thought composing classical music — art music — that incorporated phrases and ideas from the old ballads, the ambiance of Appalachia, and that sort of thing was the best way of keeping the folk music alive.

“That remains to be seen, doesn’t it?” he said. “But it keeps me alive.”

Niles (top) in a recent photograph taken at the entrance of his studio, a remodeled pony barn with a sign over the door that says “Low clearance, everybody down.” At the center he discusses music with a group of young school children, and the bottom photo shows him after a concert at Hiram College.
For almost twenty years he knocked around, playing piano and singing in the sleaziest honkytonks throughout the southland for ten or fifteen dollars a night. He went through five record companies with only intermittent flashes of success, and with contracts spelling out increasingly unfavorable terms. Music insiders of all persuasions knew him as a consummate artist whose jazzy piano and bluesy baritone could adapt to anything from the classics to country, but even the best of them couldn't figure out just how to present Charlie Rich to the public successfully.

"Charlie had to educate us all; the public had to catch up to him," says Chet Atkins, RCA's creative head in Nashville (as well as one of the best guitarists this side of Segovia), who successfully launched artists as musically varied as himself, Jim Reeves, and Perry Como but failed with Charlie. "Now country and pop taste is improving all the time, and they can accept him as a jazz musician, which he is more than anything else. I think we all knew Charlie's time would come."

When that time came—at just the moment Epic Records was about to drop him after five unfruitful years—Rich made one of the most commanding "debuts" in pop music since that of Elvis Presley. Amazingly, Charlie was being groomed to be Presley's successor at Sun Records in Memphis some sixteen years ago. The other old boys he started with there have either made it in a big way—Johnny Cash, Carl Perkins, Jerry Lee Lewis—or have long since gone back to picking cotton and driving trucks. Epic's pessimism, and that of Sun, Smash, Hi, and RCA's Groove label, was as premature as Charlie's white hair, which started showing up when he was twenty-three and which he still has a full head of now at forty-two.

In late 1972, after warming up on a country hit, I Take...
Despite a few positive musical influences (a family that became a number-one pop hit in 1973 and sold over one million units), Charlie cut Behind Closed Doors, which was a very special love song. For good measure, there won't be any more, a country song Charlie recorded with Atkins in 1965 (when it flopped) was rereleased by RCA, dated arrangement and all, and reached number one in the country field and the top twenty on the pop charts. All of his former labels have rereleased their Charlie Rich records and are cleaning up (at little or no financial benefit to him) with good music that was ahead of its time.

Except that it fits comfortably into the middle-of-the-road sound predominant in pop music just now and is not bashful about its country influences (also a plus these days), Charlie Rich's music still defies classification, even by himself. As Charlie puts it in his slightly startling first-person-plural, "I think we're a pretty good white blues singer, competent at good pop music, and good at our particular brand of country. We're not Roy Acuff or Porter Wagoner, and maybe there'll be some country people who'll walk out of the show. By the same token, Porter Wagoner doesn't get Dave Brubeck fans listening to him. There are more and more country people who like the blues—hard blues, the black blues we do. They don't even know they like it, but it's goin' down real well."

If it takes a measure of suffering to sing the blues, then Charlie is more than qualified. Apart from constant professional frustration ("There were so many times when we had the right sound and good material and knew we were in the groove and couldn't understand why it didn't happen"), consistent poverty, alcoholism, pills, and a few personal hangups have haunted him until just the last few months. He was born on a farm in Colt, Arkansas, and despite a few positive musical influences (a family that sang in church, piano lessons starting in the third grade, a year of music theory at the University of Arkansas), Charlie's childhood was an emotional tug-of-war between his hardshell-Baptist mother and a father who was an alcoholic. "They both wanted me to sing, but she never approved of the places I was singin' in."

After a year at college and a tour with the Air Force, Charlie, his wife Margaret Ann, and their three very young children settled down on a cotton farm in Arkansas. After two and a half years of it he decided that "a farm is a wonderful place to be when you're a kid, but a miserable one to make a living in." He quit. Margaret Ann, a singer and composer herself ("I was the white Billie Holiday at the Mouse Club in Oklahoma City"), prodded Charlie into applying for work at Sun Records, across the Mississippi River in Memphis. He began as a background musician for others and eventually recorded on his own.

But the Riches were always borrowing money in order to muddle through. Painfully shy and quiet, Charlie took refuge first in drink, later in pills. Some nights in his club work he couldn't even sit on his piano stool without falling off. But long after others who weren't making it had quit, Charlie struggled on. "I don't think I ever had any intention of getting out of music. I was prepared to end up playing cocktail piano for the rest of my life and be pretty low financially, but it was all I would do or knew how to do," he says.

Although Margaret Ann, who wrote Charlie's song Life Has Its Little Ups and Downs out of very personal experience, kiddingly complains, "We're having withdrawal symptoms from poverty," the personal and professional adjustment to success has been remarkably free of bumps. Charlie, playing Mozart on the antique mahogany Steinway grand—a signed piece—he recently acquired, says smilingly, "She's the one who pushed me into the record business, and now she's the one who's sorriest."

"I just never planned on not being able to take him shopping with me," says Margaret Ann, who runs the Rich family publishing company. Makamillion Music, named years ago in jest but now just as apt as can be.

The Rich family has moved into a new $80,000 home on a lake in a subdivision outside Memphis. That's where they feel most at home, although Charlie now records in Nashville and travels almost half the year. The house, the piano, and the all-new furniture are so far the extent of their indulgences. Allan, their twenty-year-old son, his two teenage sisters, and a five-year-old brother are still around home. Allan writes songs and has begun recording for Epic. "I didn't encourage him or discourage him," says Charlie. "I've just tried to tell him what's been roughest on me."

Charlie checked into a sanitarium last fall and in a two-week crash program with four specialists—a psychiatrist, a psychiatrist specializing in alcoholism, a psychologist, and a hypnotherapist—was able to cut out all the drinking and the pills. But alcoholic drinks are still not served in his presence, and he drinks gallons of coke and coffee a day to still the itch. Undaunted, he plans to tackle his heavy smoking next.

On stage and off the shyness is disappearing. With the help of a Los Angeles choreographer he is learning to move around in his performances. "Before, all I did was sit at the piano and sing. I couldn't even stand at a microphone properly." His white hair, teddy-bear looks, and 6'2", 250-pound frame have made him something of a sex object among the women in his audience, especially when he croons Behind Closed Doors.

Charlie's brand-new act—smooth without being slick—is now out on the road, so to speak (he travels in a leased jet). He has added four horns to his standard four-man rhythm section and a black girl vocal trio, The Treasures, without eroding his loyal following even in the deep South. Thanks to appearances on network TV (he hosted Midnight Special twice and will shortly have his own special), a million-dollar contract at the Hilton in Las Vegas, a Grammy, and a shelf-load of other awards, the lines of autograph seekers and well-wishers are getting longer at each stop. Charlie is now able to arrange more time with his family—and to write his own songs again as well (his Lonely Weekends, written in 1960, has become a rock-country standard).

"I've always believed in him, but that wasn't quite enough," says Margaret Ann. "You have to want it bad to get it, and Charlie used to be hesitant. I thought I was being all alone in knowing how great he was. I'm just real glad everybody else found it out too."

And indeed they have: Charlie Rich was named 1974's Country Music Entertainer of the Year this October past.
THE SONGS OF FRANCIS POULENC

By Harold Lawrence

The death of Francis Poulenc in January 1963 was marked by a few memorial concerts, some affectionate tributes in the press, and a handful of articles in the music journals. This past year his seventy-fifth anniversary passed almost unnoticed. A fifty-centime postage stamp bearing the composer's picture was issued in France last July, and a collection of Poulenc mélodies sung by Bernard Kruysen has just been released by the Musical Heritage Society. It is the latest in a series of recordings of French songs by the Danish baritone, and it is bound to revive fresh interest in a composer who is still commonly regarded by many as a writer of clever piano pieces, sentimental concert songs with a popular flavor, and some high-spirited, prankish stage works.

The fact that Poulenc bore a striking resemblance to the comedian Fernandel, not only in physical
appearance (Cyrano nose, large ears, sensuous mouth) but in his earthy humor and sly sophistication, only reinforced the impression that he was some sort of musical clown. Nobody was really surprised when a French journalist coined the term “leg-Poulenc” to describe his music—the pun seemed inescapable—and it was to be expected that Poulenc would not be taken seriously by the avant-garde. He used conventional harmonies and rhythms, he was an unabashed melodist, resolutely diatonic, and a self-centered eclectic who made no attempt to conceal his artistic debts to Chabrier, Debussy, Ravel, Satie, Moussorgsky, and others.

Poulenc’s beginnings, however, seem to contradict this stock image of a lightweight composer. He started his career, for example, smack in the middle of the contemporary cultural scene. His first teacher, pianist Ricardo Vïñes, was a friend of Falla, Ravel, and Debussy, and was responsible for numerous premières of important piano compositions. Aux Amis des Livres is a bookshop and a center of intellectual activity in the Rue de l’Odeon in Paris, and Poulenc met there many of the younger writers who were striking out in new directions: André Breton, Louis Aragon, and Paul Eluard among them. The many important musical and ballet premières he attended brought him into contact with such artists and musicians as Stravinsky, Picasso, Cocteau, and Satie. It was Erik Satie who spearheaded the anti-Impressionist movement and became the spiritual father of the heterogenous group of composers that came to be known as Les Six. With Satie’s encouragement, Poulenc wrote the first works that were to bring him public recognition.

To keep abreast of developments in new music, Poulenc joined the late Darius Milhaud on a trip to Vienna after World War I to see what had been happening during the preceding four years. The pair met Alban Berg, Arnold Schoenberg, and Anton von Webern, heard Pierrot Lunaire for the first time, and played their own works for Schoenberg. Back in Paris, Poulenc became an active member of Les Six, who were setting out, in their various ways, to dispel the lingering vapors of Impressionism.

In those days, Milhaud and Arthur Honegger were considered far more important than Poulenc: Milhaud because of his aggressive “modernism” and mixture of Stravinsky and polytonality, Honegger because of his large-scale symphonic and choral works. But times have changed. With some notable exceptions, the popularity of the major works of Milhaud and Honegger (particularly the latter) have waned, while audiences are now gradually beginning to discover in Poulenc deeper qualities than “the sophistication of the graceful,” the motto of Les Six devised by the group’s poet-theoretician Jean Cocteau. Baritones Bernard Kruysen and Gérard Souzay, Poulenc’s close friend the tenor (later baritone) Pierre Bernac, the late Jennie Tourel, conductor Georges Prêtre, and pianist Grant Johannesen are among those who championed Poulenc’s works even after his death. In 1973 there were sixty-five performances in the U.S. of the Concerto for Two Pianos and Orchestra, eighty-five of the Gloria, and sixty-five of the Concerto for Organ, Strings, and Timpani. (In the Soviet Union, however, where the popularity of modern Western composers can be measured by the number of illegal editions of their music published, Poulenc is still regarded, officially, at least, as a “silly, religious and degenerate bourgeois.”)

Although Poulenc composed a large body of instrumental and orchestral works, his major contribution lies in the sphere of vocal music. He wrote his first song cycle at the age of nineteen, a setting of Guillaume Apollinaire’s Le Bestiaire. In comparison with his later mélodies, it is astonishing to observe how, in these early songs, Poulenc’s individual style had already taken shape. During the next four and a half decades, Poulenc composed nearly 150 mélodies and earned the recognition of Virgil Thomson (among others) as “incontestably the greatest writer of mélodies in our time.” Within a
broader historical framework, Poulenc’s *mélodies* are descendants of the Romantic *Lieder* of Schubert, Schumann, and Wolf, as well as the songs of Moussorgsky, which Poulenc never tired of playing at the piano.

The use of the word “*mélodie*” in reference to Poulenc’s art songs perhaps needs some little explanation. Like so many other French words, *mélodie* is, for English-speaking readers, a deceptive cognate. Just as *biche* does not mean “bitch” but “doe” or “darling (girl),” *mélodie* does not mean “melody” but a particular kind of French art song. (Many incorrectly call the French art song a *chanson*, but a *chanson* is more properly a popular or folk song.) The *mélodie* is perhaps most analogous to the German *Lied* in its close union of text and music. Attempts at translation, however, result in approximations at best—Gérard Souzay cautions against what he calls “facile generalizations: you might say that the *Lied* is a kiss on the forehead and the *mélodie* a kiss on the neck... this is misleading.” Quite apart from the literal meaning of the words themselves, however, the sheer liquid sound of the French language lends itself perfectly to the mood and atmosphere of much modern French poetry, thus perhaps inviting Souzay’s evocative analogy as it did Poulenc’s desire to give this poetry a musical setting.

Poulenc was an avid reader as a boy; he devoured the works of Baudelaire, Verlaine, and others, and he could recite Mallarmé poems from memory at the age of ten. He first read Guillaume Apollinaire when he was thirteen: “With *Le Bestiaire*, I discovered a strong and mysterious bond with Apollinaire’s poetry.” During the next twenty-eight years he was to set to music thirty-six poems by this colorful and provocative figure of twentieth-century French literature.

Apollinaire was born in Rome in 1880, the illegitimate son of an Italian father and a Polish mother. He was educated in the south of France but moved in 1898 to Paris, where he plunged headlong into the intellectual ferment of the capital. He found the action in St. Germain-des-Prés. Quartier Latin, Montmartre, and Montparnasse, where, as a literary journalist, art critic, and amateur painter, he was quick to make friends with some of the leading young artists and writers of the day: Picasso, Vlaminck, Braque, Dufy, Gertrude Stein, Max Jacob, Derain, and Marie Laurencin, who later became his mistress. He early recognized the nature and significance of cubist art in his landmark book *Les Peintres Cubistes*, and his own poems and dramas placed him firmly in the French avant-garde.

Much of Apollinaire’s writing anticipated the Surrealist movement. He was the first (in 1903) to use the term “surrealist,” referring to his play *Les Mamelles de Tirésias* as “drame surréaliste.” Twenty-one years later, the founder of the movement, André Breton, paid homage to Apollinaire by adopting the word in his *First Surrealist Manifesto*. By then the movement, led by Paul Eluard, Louis Aragon, and Hans (Jean) Arp was in full swing. Surrealism was influenced by the development of psychoanalysis, with its exploration of symbolism in dreams and its use of free association in therapy. Breton and his colleagues attacked what they called “the reign of logic,” encouraging artists to paint dream images rather than conceptual pictures.

Poulenc was, in a sense, Apollinaire’s dream-analyst. To verse-scape void of punctuation he brought clarity and form by means of musical commas, paragraphs, parentheses, silences, and tonal typography. A characteristic example is the *mélodie* called *Sanglots (Sobs)* from the cycle *Banalités*. Pierre Bernac describes this intensely lyrical poem as “difficult to understand and to translate.” Out of Apollinaire’s elusive text, Poulenc’s setting...
creates its own patterns of tension and release. No longer was Sanglots, to paraphrase Pirandello, a poem in search of a composer. Throughout Poulenc’s output, one is continually struck by the poetic rightness of his musical settings.

The new Musical Heritage Society album contains thirteen mélodies to Apollinaire poems. They span nearly three decades, from the remarkable Le Bestiaire (1918), Poulenc’s first song cycle, to Montparnasse (1946). Although these songs represent more than a third of Poulenc’s Apollinaire settings, their total timing amounts to only some seventeen minutes. Several are less than one minute long; they dart past our ears like musical streakers. And though it took Poulenc four years to write the longest, Montparnasse, it lasts only three minutes.

One of the major figures in the Surrealist movement was the poet Paul Eluard. Poulenc first met him in 1916 when the composer was seventeen, and the poet was, like Apollinaire, to become a powerful influence on the younger man. Of the two poets, Poulenc wrote: “If one were to inscribe on my tombstone: ‘Here lies Francis Poulenc, musician of Apollinaire and of Eluard,’ that would be my best claim to fame.” Eluard was the inspiration for thirty-five Poulenc mélodies and choral works. Two major Eluard cycles are included on the MHS disc: Tel Jour Telle Nuit (1937) and La Fraîcheur et le Feu (1950) as well as the song Main Dominee par le Coeur (1947). Also included are two settings of poems by Louise de Vilmorin, and C. set to a poem by Louis Aragon. Like Eluard, Aragon was a prominent member of the Surrealist movement who later became a Communist. His deeply affecting poem C was written during World War II. The title refers to Les Ponts-de-Cé, a location on the Loire near Angers from which one could cross from German-occupied France to the unoccupied zone. At its first performance, Germans in the audience were bewildered by the ovation the work received. Its gentle, lyrical style masked the passionate sentiments that racked the stricken and divided nation that emerged after the military defeat of 1940.

Bernard Kruysen (to return to the recording that prompted this brief essay on Poulenc) has been making a fine reputation on records as an interpreter of French songs. The new Musical Heritage Society release should enhance that reputation, for in it Kruysen adheres scrupulously to the composer’s indications. It would be easy, for example, to sing Le Bestiaire, whose quatrains read at first glance like Edward Lear nonsense verse, in a coy and “clever” manner. But Poulenc admonished his singers: “To perform [these mélodies] ironically is completely to miss the point. It shows neither understanding of Apollinaire’s poetry nor of my music.” Elsewhere Poulenc warns: “No winks. Right on!”, and he repeatedly urged singers to observe his dynamic and tempo indications implacably.

A disappointing feature of some recordings of Poulenc songs is the absence of complete texts and translations; short prose summaries in English frustrate the listener. Without full texts, it is impossible to follow such “patter” songs as Le Pont (The Bridge) or to appreciate its “visual poetry,” the title printed like a bridge over floating islands of type. I am happy to report that full texts and translations are furnished in this release. The balance of the voice with the piano part, further, is first-rate (as is accompanist Jean-Charles Richard’s playing). Altogether, it is a highly recommended release—but this is no place to stop. What is needed now is “Mélodies—Volume 2” as well as a systematic re-evaluation on disc of the whole of the Poulenc oeuvre.

...AND HIS SINGERS

Left to right, Pierre Bernac, Bernard Kruysen, and Gérard Souzay

Harold Lawrence is now manager of the New York Philharmonic, having returned to the domestic music scene after spending six years as general manager of the London Symphony Orchestra.
MEET GATO BARBIERI

By Joel Vance

"I t's wrong . . . I am very tired. The session was to begin at twelve o'clock and go to six. That is the wrong time. You know, it should start at three, because when you have been playing or rehearsing the night before and you have to get up and go to the studio, it's no good. You need to have energy."

Gato Barbieri, his wife, and I were just leaving a New York recording session after a strenuous round of rehearsals, false starts, halts, and final takes—seventeen hard-working musicians, mixed Latins and Yanks, under recording director Chico O'Farrell, playing straight-ahead big-band jazz with a little Latin rhythm for spice. Gato's tenor sax playing is intense and at times violent. He favors the prolonged shriek of which that instrument is especially capable, and he often sounds as though he's trying to wrestle a tune to the ground and wring its neck. But it is exciting—and enervating.

Leandro "Gato" ("Cat") Barbieri is one of those phenomena contemporary jazz critics and fans long for but ultimately become leery of: a star. Jazz buffs are proud of their stars, but they tend to guard them jealously lest they renounce the music's Holy Orders and leap over the wall into the pop or rock gardens. Anyway, jazz star Barbieri is perhaps best known (and therefore slightly suspect) for renouncing the pop-jazz score he composed for Last Tango in Paris, the theme of which has been recorded by everyone from André : . . . "netz to Mongo Santamaria. But it was the series of albums ("El Pampero," "Fénix," and "Under Fire") he cut for the Flying Dutchman label that really established his reputation in American jazz circles. Because of them he began to be looked upon as a front runner in the "New Jazz" movement, the latest of those purificatory rituals that jazz undergoes every decade or so. But the new album is a departure from these, more comfortable, less anguished, less searching.

"Yes, I change things around a little. But I like to keep the basics the way they are."

Following the Flying Dutchman trilogy, Gato changed labels (moving to Impulse) and returned to his native Argentina (which he had left in 1962) to round up a crew of local folk and jazz players for the recording of the much-applauded albums "Chapter One" and "Hasta Siempre." These two, together with the successful Tango soundtrack, got him invitations to play the better clubs and festivals on the American jazz circuit as well as several European tours. For a time he tried to travel with a large group of Argentinian musicians which he christened "The Third World," but it proved to be too expensive and too many of the players got homesick. He now works with a seven-man combo for touring.

"Chapter One" and "Hasta Siempre" achieved special notoriety because of Gato's attempts to fuse jazz and Argentinian folk music: he was deliberately searching out his roots because he felt he had previously been appropriating a black American jazz sound to which he was not entitled by birth. This last worried him for a while, but it does no longer. Gato is acutely conscious of his status as a member of the Latin American Third World, but the fact is that Argentina's native music—from the carnivalesco folk tunes of Edmundo P. Zaldivar, Jr., to the tangos made famous forty years ago by Carlos Gardel—has little or no connection with the Afro-Cuban rhythms of the salsa music played by Ray Barretto and Willie Colon, or with the jazz-tinged, big-band sound of Tito Puente or Machito. Nor does it have much to do with the Mexican sounds of our West Coast. With its influx of European bloods and cultures, Argentina has a cosmopolitan chic that distinguishes it from all other Latin American nations. For this reason Gato's search for "native" roots was in the final analysis quixotic, and he has long since matured as a musician, coming to sensible terms with the international jazz tradition.

"Today I am . . . fifty-five [he's actually forty-one]. Tomorrow I shall be . . . who knows? My doctor in Argentina tells me that up here [tapping temple with forefinger] I am five years old."

Gato began music lessons when he was twelve, first playing the clarinet-like requinto and then taking six years of lessons on the clarinet proper. His father played violin by ear and was the curtain-puller at the local opera; his brother was seventeen he heard Charlie Parker's playing Dixieland, then worked with tea-shop groups playing traditional boleros, sambas, and tangos. When he was seventeen he heard Charlie Parker's "Now's the Time" and switched to alto sax, but when he was twenty he moved on to tenor. For a while he was in the reed section of an orchestra led by fellow national Lalo Schifrin.

By 1962 he had exhausted the rather limited possibilities of playing in Argentina: he had also met and married his delightful French-Italian wife Michelle. They took off for Europe and settled in Rome, where Gato made a name for himself in the jazz clubs. Michelle had worked with several film directors, and after she introduced him to Bernardo Bertolucci, Gato wound up scoring the soundtrack for Bertolucci's first film, Before the Revolution. He also met trumpeter Don Cherry, who had been on the early Ornette Coleman sessions, and Cherry brought him back to New York for Gato's first dates as a sideman in the United States.

And so, for the next ten years, Gato and Michelle shuttled back and forth between Europe and America, making music and a little progress.

"We came here in 1965. Ten years. Just now I am getting somewhere. Slowly. It happens slowly. Maybe because I am very proud, arrogant. When someone calls me to do something—'Hey, man, come on and play with us,' you know?—I want it to be me they are calling for . . . what I can do. In a way, Argentinians are very aggressive. But we also have our pride!"
THE IMPORTANCE OF PHASING

Peter Sutheim brings a little needed clarity to a fog-bound part of the audio landscape

The term "phase" describes an aspect of high-fidelity reproduction that every audiophile, even a casual one, must sooner or later confront. The first encounter may be in a piece of product literature or in an instruction booklet, and the concept is certain to crop up, sooner or later, in conversations with other audiophiles and in magazine articles dealing with audio matters. But these are almost always only fleeting contacts; phase usually gets only a passing mention, seldom even a partial explanation. Phase is, however, as real (though insubstantial) and as universal as time—in fact, it is time—and its applicability to audio can be explained quite easily without reference to troublesome philosophical or technical concepts.

The ramifications of phase extend everywhere—to tape and disc technology, FM broadcasting, stereo and four-channel technology, even to radar and color TV. It would take a book-length treatment to cover all of these areas, but it is possible to restrict ourselves to a useful shorter exposition tailored to the concerns of audiophiles, and to describe a practical device the reader can build to check some of the phase relationships in his audio system as well.

In audio and electronics, the word "phase" is generally used with reference to some kind of oscillating, vibrating, or alternating phenomenon such as a sound wave or the electrical (audio) current or voltage that represents it. Phase can therefore be thought of as a word describing the progress of an audio signal or a sound wave in time relative to its own starting point or to some other electrical current or sound wave. Some sketches and examples will help make this clear.

Curve A in Figure 1 shows one cycle of a sine wave, the most basic and common kind of alternating current in electrical technology. The horizontal coordinate of the graph represents time. The vertical coordinate here represents amplitude, intensity, or strength, and could be a description of voltage, current or power, air pressure (as in the sound waves we hear), the instantaneous displacement or velocity of a microphone diaphragm or speaker cone—anything whose intensity can vary in a way described by the sinusoidal curve. Because the sine wave is periodic—which is to say that it repeats itself cyclically and identically—the time axis is frequently marked off in degrees of angle rather than in more familiar units of time like seconds. A full cycle comprises 360 degrees, just like a circle.

Just which point on the curve we choose to call zero is somewhat arbitrary, but it makes sense to
make it one of the places where the curve crosses the zero-amplitude axis. Note that, in Figure 1, curve A reaches its maximum amplitude in the positive direction at 90 degrees, recrosses the zero axis at 180 degrees, reaches a maximum in the negative direction at 270 degrees, and then returns to zero, completing the cycle at 360 degrees—which can also be thought of as 0 degrees for the next cycle. In a sine wave, the two half-cycles are mirror images of each other.

Curve B in Figure 1 is another sine wave, but of slightly lower amplitude. Its frequency—the time it takes to complete one cycle—is the same, but it begins 90 degrees later, just as curve A is reaching its positive peak. Curve B can be described as being 90 degrees out of phase with curve A, or we can say, that curve A “leads” curve B by 90 degrees, or that curve B is “delayed” by 90 degrees.

Curve C is 180 degrees out of phase with curve A, in that its amplitude is at every point exactly opposite to that of A. Since the amplitudes of A and C are exactly equal but opposite, they would, if they represented voltages that were mixed together in a circuit, cancel each other out, and the circuit’s measured voltage would be zero at all times.

The audiophile usually confronts the question of phase in only one form: is some part of his system in or out of phase with another part? If so, it will be necessary to reverse the phase of one of the parts (that is, to change it somehow by 180 degrees) to bring it into step with the other. As a rule, this can be accomplished simply by reversing the connections to one of the speakers, or to one channel of the phono cartridge.

The idea of phasing a single speaker (or a mono phono cartridge) is meaningless, since phase is a relationship between two or more signals. In a mono sound system, it makes no difference which of the two wires connecting the speaker to the amplifier output is connected to which of the two speaker terminals. But when two (or more) speakers are used together, phasing becomes important. If two speakers connected to the same source, or to the two outputs of a stereo amplifier, are out of phase with each other, there will be a partial cancellation of low-frequency sounds in the room and odd psychoacoustic effects on stereo programs will result (see Figure 2).

The first thing to check is cartridge phasing. Play a record at moderate volume. Switch the amplifier between its mono and stereo modes. If the sound drops radically in volume in mono, if it lacks bass and is distorted, two connections at the phono-cartridge pins are reversed and are providing an out-of-phase signal. Check to see if you have correctly followed the turntable and phono-cartridge connection instructions. You may have interchanged a “hot” and ground lead for one channel.

Two or more speakers are said to be “in phase” with each other if their cones move in the same direction (all out, or all in) when fed the same input signal. Given a pair of speaker systems with only two terminals each, there can be no in-between conditions; they are either in phase or they are out.

One test for proper speaker phasing is to remove the grilles so you can see the woofer cones. Connect 6-inch pieces of wire to each speaker terminal. Touch a single flashlight battery momentarily to the...
wires so that the cell’s positive terminal (the button) goes to the speaker terminal marked in red (or with a plus sign), and the negative part of the battery (the case) to the other. The woofer cone will jump either forward or back when the connection is made. Now connect the battery in the same way to the other speaker. Its cone should move in the same direction. If it does, the speakers’ terminals are in phase with respect to one another, and they should be connected to the amplifier in the same way—usually the “plus” terminals to the “plus” or “hot” connectors on the amplifier, and the other terminals to the amplifier connectors marked “minus” or “common” or “zero” (there is no standard designation, and the words and markings are used interchangeably). If the cones do not move in the same direction during the battery test, one speaker should be connected as above, but the other should have its connections reversed (that is, the “plus” terminal on the speaker goes to the “common” terminal on the amplifier, etc.). The only thing that matters is that both speakers are connected to the amplifier just as they would have to be connected to the battery to make the cones go in the same direction. Interchanging (reversing) the connections to one speaker of a pair reverses its phase with respect to the other, making it in phase if it was out of phase, or out if it was in.

This test can be useful if you have two different models or brands of speakers, since you cannot assume that one manufacturer’s + mark means the same as another’s. This situation comes up fairly frequently when a different speaker model is used to bring up the rear in a four-channel setup.

Another test for speaker phasing is to move the two speakers in question face to face, a few inches apart, and connect them to your amplifier in the usual way. Turn the amplifier volume to zero, switch the input selector to “phono” and the mode selector to “mono.” Pull out the plugs from your turntable to the amplifier slightly so that the pins make contact but the outer shells do not. Slowly turn up the volume. You should hear a lusty hum. Now reverse the connections to one of the two speakers. The hum should be either louder or softer. If it is louder, the speakers are now in phase. If it is softer, they were in phase as connected. Sometimes the test is more conclusive if you turn the bass control up and the treble down. Switch the connections back and forth several times if your conclusion is uncertain at first. With most amplifiers, you can do this safely at moderate volume without turning anything off to switch connections, but be careful not to short out the speaker leads from the amplifier (do not touch the exposed wire ends together).

This test has obvious limitations: the speakers may be built-ins, too heavy to move, or the wires may be permanently tacked in place. Furthermore, neither of the tests above is definitive, especially with more complex speaker systems that have several drivers for bass, mid-range, and treble frequencies. Although the tests can indicate the phasing of the woofers, that may not be the whole story. (The tests are likely to be conclusive for identical speaker systems of reputable manufacture, but then such speakers’ terminals are usually already plainly marked for phasing.)

One reason why these tests can be inconclusive is that the dividing networks (crossovers) used in multiple-driver systems produce phase shifts that vary with frequency and can cause phase differences between the various drivers. In a “three-way” speaker system, the bass part of the audio signal comes from the woofer, but most of the musical information—directional and otherwise—is in the mid-range region. Having the woofers in phase is important to good bass reproduction, but if the mid-range units are not also in phase some peculiar effects can occur. The stereo image can be confused or excessively wide, with no apparent center. Certain instruments or voices can be lost or pushed into the background.

A speaker manufacturer often deliberately connects a mid-range unit electrically out of phase with other drivers in a system. But the end acoustic result is what counts. Remember to think of phase and time as different ways of looking at the same thing: delay. For example, the electrical phase shifts in the crossover network can be somewhat compensated for by the physical arrangement of the drivers in the speaker system—specifically, their relative positions on the front panel and by their front-to-rear location within the box.

Let it be clearly understood that there is no completely foolproof, perfectly unambiguous way to determine whether two speaker systems are in phase or out of phase, for between the overlapping complexities of crossover-network phase shift, driver placement, different distances from each of the drivers to the listener’s ear, and phase confusion because of “breakup” in the radiation of even a single driver, phasing remains an elusive thing. But, given the choice of connecting a particular speaker of a pair (or a group) one way versus the opposite way, the “in-phase” way is almost always better.

It is sometimes possible to discover whether your speakers are in phase by listening tests alone, or
**THE PHASE TESTER**

**HOW IT WORKS**

The theory and operation of the Phase Tester is quite simple. A speaker, which normally converts electrical energy into mechanical/acoustical energy, can be used in reverse: to generate an electric current in response to sound waves just as a microphone does. With the help of a germanium diode, this current can be rectified so that the needle of a sensitive meter will move upscale according to the loudness of the sound striking the speaker. If we place the speaker in the Phase Tester up against the front of a speaker of a music system, the meter pointer will respond to the varying program level.

If we connect another phase-checking speaker in parallel with the first one, and place it, too, in front of the same speaker in the music system, the meter reading will be greater or smaller than before, depending on whether the added speaker is in phase or out of phase with the first speaker. Since in-phase or out-of-phase is simply a matter of transposing the wires to one of the phase-test speakers, a switch can be used to put the second test speaker in or out of phase at will.

Now we can check the relative phasing of a pair of system speakers. Put one of the Phase Tester's speakers in front of each speaker system, set the amplifier to mono, turn the music up loud, and observe the meter while flipping the switch back and forth. If the meter reading is, on the average, higher with the switch in the in-phase position, the speakers are in phase. If the reading is higher in the out-of-phase position, the system's speakers are out of phase and the wires to one of the two systems should be transposed. Once the correct phasing of one pair of speakers has been established, others can be phased to either one of the first pair.

**HOW TO BUILD IT**

To construct your Phase Tester, begin by drilling or cutting holes for the speakers, the meter, the switch, and the jack in the control box of the unit. The box can be of cardboard, metal, or plastic, and the parts held in place with nuts and bolts, epoxy, or whatever. Make sure that the speaker-cone area is clear so as to ensure as much sensitivity to sound as possible.

Once the parts are mounted, wire them together according to the accompanying drawing. It is best to solder all connections if you can. If you can't, twisting the wires together or onto the terminals tightly with pliers will do. Be sure not to leave any uninsulated connections dangling in mid air where they could touch each other or other metal parts. If they do there's no danger—but your meter won't work. (When you solder to the diode, slide a large paper clip on each diode wire before you solder it; this prevents the full heat of the soldering iron from traveling into the diode and possibly damaging it.)

When all the wiring is finished, shout into the speaker in the main unit at close range, facing a mirror. You should see the meter pointer move up-scale. Do the same with the remote speaker unit. The meter should move again. Now place both units against the grille at the woofer of one of the speakers in your system. Turn the music up loud enough to get a visible reading on the meter. Now flip the switch. The switch position that provides the highest reading should be labeled in (for in-phase); the low-reading position should be labeled out. The meter is now ready for use.

One drawback of the Phase Tester is its low sensitivity, which means that the checker must be placed very close to the speaker under test and the amplifier volume must be fairly high. An amplified version of the Tester overcomes this for about the same price and only slightly greater complexity. It uses a tiny, preassembled solid-state amplifier that incorporates a sensitivity control and requires only a 9-volt transistor-radio battery for power. A stamped, self-addressed long envelope sent to STEREO REVIEW, Dept. PT, One Park Avenue, New York, N.Y. 10016 will bring you free how-to-build-it instructions plus some additional construction details if required.

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**Meter M1 is mounted with SW1 on the top or rear of SPKR I's box. For SPKR 1 and 2 use 5-inch speakers with at least a 3-oz. magnet since a heavier magnet provides higher meter readings. Germanium diode D1 (1N34A, 1N48, or 1N60) is wired as shown. If M1 reads in reverse, D1 is backwards. Instead of a built-in 20 microamp meter for M1, the 50- or 60-microamp range setting of a 20,000 ohms-per-volt multimeter (VOM) will serve as well. If you can use a VOM anyway, it makes more sense to spend $20 or so for a complete 20,000 ohms-per-volt tester than $11 for a meter movement alone. If you go the VOM route, install pin-jacks (for the VOM's probe tips) in the Phase Checker at what would have been M1's terminals. (An article by Craig Stork in the October, 1970 issue tells how to use a VOM for basic hi-fi troubleshooting.) SW1 is a standard double-pole, double-throw toggle switch. C1 is a low-voltage (100 volts or less) disc or tubular capacitor of 0.25 to 0.5 microfarad. Signal step-up transformer T1 is a Stancor 49744. The A3327, which has the same high step-up ratio (25,000 ohms to 4 ohms) should work as well, but may have a different lead color code. Note that in every case the low impedance (4-ohm) winding of T1 goes to SW1 and the high-impedance winding to the diode and meter.
perhaps with the help of a suitable test record such as Stereo Review’s own SR 12 (available for $5.98 postpaid from Ziff-Davis Service Division, 595 Broadway, New York, N.Y. 10012). But at times it is nice to have a reliable instrument on hand to confirm your listening-test conclusions or to serve as a gauge to establish a bad/good/better set of alternatives. The simple Phase Tester described herewith is simple and can be built either as a passive device or a more sensitive powered version. It consists of two small speakers, serving as microphones, whose output is fed—directly or through a battery-powered amplifier—to a meter. One speaker is connected through a phase-reversing switch, and is part of the main unit which also contains the meter (and amplifier and battery, if used). The other speaker is in a separate box at the end of 15-foot or longer thin wire.

When the two boxes are each placed as close as possible to the woofers in the systems whose phasing is to be checked, the meter reading will be higher when the speakers are in phase than when they are out of phase. Throwing the in-out phase switch reverses the phase of one of the phase-checker speakers. If the average reading is higher that way, then the systems under test are out of phase.

For reliable results, all speakers should be producing the same loud monophonic signal. Otherwise meter readings and determinations based on listening will be inconclusive, because stereo and four-channel program material can contain considerable out-of-phase information, especially between front and rear channels. Quadraphonic systems employing a four-channel receiver or amplifier can often be switched to provide a mono signal to all four speakers. For other quadraphonic installations—particularly those using separate and unmatched amplifiers that may have inherent phase differences for the front and rear channels, special test hookups may be necessary. Since many stereo preamplifiers have more than one pair of main outputs, it may be possible to connect both power amplifiers so that they are driven simultaneously by the preamp. A pair of “Y” connectors will also do the job. Otherwise, for the purpose of amplifier phasing, it should be sufficient to drive one channel of the front amplifier with one preamp output, and one channel of the rear amplifier with the other. If the corresponding front and rear speakers test in phase, then it is safe to assume that the two amplifiers have the same phase characteristics at the specific inputs used. Detailed instructions are given in the accompanying box on four-channel phasing.

Peter D. Sulheim, a frequent contributor to Stereo Review, is a free-lance writer and station manager of KPFK, the listener-sponsored Pacific FM radio station in Los Angeles.

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**PHASING SPEAKERS IN FOUR CHANNEL**

In a four-channel matrix system, the phase relationships between the signals going to the front and rear speakers are usually unpredictable. In fact, matrix decoders frequently introduce deliberate phase shifts between channels in order to enhance in some way the directional effect they’re trying to achieve. Most of the time, the ordinary music listener needn’t concern himself with this at all.

If, for example, he buys a four-channel receiver with a built-in matrix decoder, he can rest assured that the phase relationships at the speaker outputs are what the designer intended. All should therefore be well as long as the speakers are connected properly.

However, the audiophile who is stepping up from stereo to four channel by adding a decoder/demodulator and an additional (usually different) amplifier to power the rear speakers faces a special problem—that of determining the phase differences (if any) between the inputs and outputs of the amplifiers. An amplifier is made up of a number of amplification stages, each of which usually “flips” the phase of the signal by 180 degrees.

Depending upon the number of those stages and how they work, the output signal at any given frequency may or may not be in phase with the input. It follows, therefore, that when dissimilar amplifiers are used for the front and rear channels, it’s difficult to predict whether the phase relationships will be those that were intended.

The Phase Tester provides a straightforward means of testing the phase of a quadraphonic system empirically. To do so, however, it is necessary to disconnect the matrix decoder from the system temporarily to prevent any of the decoder’s own phase manipulations from confusing the test. This is easily done in most cases. If the separate decoder is driven from the tape-output jacks of the front-channel amplifier, simply unplug these cables from the decoder input and connect them instead to whatever inputs the rear-channel amplifier (usually AUX) the decoder normally uses. Switch both amplifiers to mono and place the tape-monitor switch of the front-channel amplifier in the source position (to keep the decoder signal out of the circuit).

Then proceed with the test in the normal way, making sure all four speakers are in phase with one another.

If the system consists of a preamplifier and two power amplifiers with the decoder inserted between them, connect the preamplifier to all four of the “four-channel discrete” inputs. (Most stereo preamplifiers have at least two sets of main outputs to facilitate this; if yours doesn’t, you can use “Y” connectors to provide the four outputs.) Then perform the tests with the decoder switched to the “discrete” mode and the preamplifier switched to mono.

Many decoders can be switched to a “mono” position that provides an identical signal at all four outputs. In this case the test can usually be made without disturbing any of the system’s connections. When in doubt, however, use one of the procedures described above. If in any of the tests the rear-channel amplifier proves to be electrically out of phase with the front-channel amplifier, correct acoustic phasing can be achieved by interchanging “+” and “−” connections on both of the two rear speakers.
Now that Dmitri Shostakovich's splendid Tenth Symphony is really beginning to make its way in the world, the title of most unjustly neglected of that composer's symphonies descends to his Eighth, the second and finest section of his World War II trilogy. In contrast to the widely publicized Seventh (the Leningrad Symphony, written in the darkest days of the war), with its relatively conventional patriotic gestures, and the lighthearted, Haydnesque Ninth that came at the war's end, the Eighth, composed in 1943, is one of the composer's most personal utterances in orchestral terms—no matter that it, too, has an official patriotic "program." This is music reflecting determination, compassion, and a sustaining optimism that illumines even Shostakovich's most "tragic" pages. In no other work is his indebtedness to Mahler so clear, and in none other does he emerge so clearly as the elder master's spiritual heir.

During the immediate postwar years the Eighth was frequently spoken of as the greatest of all Shostakovich's symphonic achievements, but it had only a few performances in this country and the Mravinsky recording that circulated here on various labels was too wretched-sounding to make any sort of case for the work. It was only with the appearance of Kiril Kondrashin's 1961 recording—first on Everest, then on Melodiya/Angel—that the Eighth had a chance to become known here. But even that recording has not provoked a wide public response—though it may well have touched off the programming of a live performance or two by U.S. orchestras, such as the pair Leonard Slatkin is to conduct in Saint Louis this coming May.

André Previn's new Angel recording of the Eighth is the first to be made of this work outside the U.S.S.R., and only the third yet made anywhere. It is also the first in which musical and technical resources combine to permit the music to make anything like its full impact. The Shostakovich Fifth was the first symphony Previn recorded with the London Symphony Orchestra for RCA, before he became the orchestra's principal conductor. It was, and is, one of the superior versions of that much-recorded work, and the affinity for Shostakovich implicit in it is now confirmed by the announcement that he is embarking on a complete Shostakovich symphony cycle for Angel. That this project would begin with the little-known, mostly tragic Eighth is itself remarkable, but Previn's success with the work is more remarkable still: it is a probing, communicative, altogether masterly validation of the Eighth as unarguably one of the major symphonic achievements of its time. The pace at which Previn takes the third movement necessitates a fairly conspicuous shifting of gears in the second half, but it was a
risk perhaps worth taking for the macabre effect it has achieved. Further, this seems to be about the only miscalculation; surely it is as nothing next to the awesome weight and intensity so magnificently sustained in both of the great slow movements. This fine and ennobling realization of a fine and ennobling work strikes me as the best thing Previn has yet given us on records, and Angel, happily, has come through with sonics above its current norm. This one is absolutely not to be missed.

Richard Freed


ANDRÉS SEGOVIA'S OLD PRO'S ENCORES

The guitarist's nimble octogenarian fingers have lost none of their fabulous skill

We've been hearing so much of late about Andrés Segovia's protégés—young classical guitarists such as Oscar Ghiglia and Christopher Parkening—with their spectacular mastery of technique and wondrous control of the instrument, that there is a natural tendency to start thinking of the master himself as already belonging to the past. But the first in a new series of Segovia recordings by Israel Horowitz for RCA makes it clear that the greatest of them all, now entering his eighties, is still very much with us. In a signed note printed on the back of the album, he writes, "The short selections on this record are among those with which I choose to reward the audience when, after the regular portion of my concert is over, they ask for encores. After I have played five or six, I approach the edge of the stage, give thanks to the audience for their generous welcome, and bid them good-bye, saying: 'My friends, it is not I, young and strong at eighty, but the guitar, of delicate feminine curvature, who is already very tired.'"

Comparing Segovia's many extant recordings—most of them re-releases on the Decca label—with the stunning new Angel albums featuring Ghiglia and Parkening is a deceptive business, since the younger men have had the advantage of more recent recording techniques. The bright, vivid, strikingly real sound on this RCA disc evens matters up: our old friend Segovia is plainly the winner and still champion. It is words like "matchless" that still come to mind, whether he is invoking, with ghostly softness, the doleful melody of the Pisador Pavana in E Minor, measuring out the intriguing variations in Sor's knotty Folias de Espana, or beckoning us to strain just a bit to share the beauty of the fragile chords in Llobet's arrangements for guitar of two plaintive Catalan folk songs. If you doubt for a moment the agility of what must be the world's most nimble set of octogenarian fingers, listen to the spectacular flights of sound he summons from the strings in Torroba's Fandanguillo. And for sheer beauty of interpretation, who can make those same strings tremble and sigh more eloquently than Segovia in Tárrega's popular serenade, the Capricho Arabe?

Precision, control, grace, shading—from the secrecy of a delicately plucked chord in Torroba's Nocturno (dedicated, by the way, to Segovia himself) to the broad dynamics in Albéniz's complex serenade Torre Bermeja, this record reveals the qualities so long associated with Segovia with a new and startling clarity. When all the encores are over, the listener wishes only that he could cheer the master and his allegedly "tired" guitar back to the turntable with many an olé! for more. Paul Kresh


ANDRÉS SEGOVIA AND CHRISTOPHER PARKENING The master salutes the pupil after a concert in Spain

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La Filla del Marxant. Tárrega: Capricho Arabe. Torroba: Fandanguillo; Arcada; Albada; Nocturno; Burgalesa; Allegretto. Albéniz: Torre Bermeja. Andrés Segovia (guitar). RCA ARL1-0485 $6.98, ARS1-0485 $7.95, ARK1-0485 $7.95.

SWINGLE II:
BEL ET BON

Ward Swingle’s new madrigal group makes a stunning debut on the Columbia label

I’m sure most readers remember the original Swingle Singers. Well, forget them! We have just been blessed with a new Columbia disc, by a totally different group of singers but bearing Ward Swingle’s name as arranger, adapter, annotator, and co-producer, and it is, to my mind, infinitely better than anything turned out by the older group.

First of all, Swingle II (four men, four women, and all English, I would imagine) simply sings better, with far greater accuracy of pitch. The individual voices also blend better, and they enunciate more clearly. That last gives the clue to another major difference between the two groups, for there was nothing for the original Swingles to enunciate in the by-and-large instrumental music they persisted in singing except variations of “doodle-oodle.” What the new group sings is madrigals—French, English, German, and Spanish—and they sing them relatively straight and with terrific verve. A really quite subtle accompaniment (including an Arp synthesizer) provides modernity and polyrhythm, since the contemporary dance rhythms provided by the instruments are set off against the straightforward song rhythms of the vocals. The combination is delightfully attractive, but it is the singing itself that is the real joy.

The disc is, however, a hybrid: it is no real substitute for one containing sixteenth-century madrigals sung in the style of the sixteenth century, for the addition of any kind of rhythmic accompaniment at all to polyphonic music reduces the individual and independent rhythmic strands of the voices to an undiomatic common denominator that metrically straightjackets the music. All right, then; Swingles II isn’t “authentic.” We will just have to make do with simple delight! To quote the opening line of the opening madrigal, “Il est bel et bon.”

James Goodfriend


JACKSON BROWN’S AUTOBIOGRAPHY IN MUSIC

His latest for Asylum seems to center on a determined search for the elusive Self

The understated and possibly awesome talent of Jackson Browne came sneaking up on me in the form of his new album, “Late for the Sky,” on the Asylum label, and I swear I think it’s telling me that real poetry doesn’t hurt a bit. And I feel I’m weakening. It is an album too whole to be fairly analyzed piece by piece, even if I were willing to
relent and rush my relationship with it; it has a consistency of flavor running through it—a subtle spice or two beyond the flavor of Browne's song I Thought I Was a Child—and it is so personal it almost demands headphone listening. It gets things said that few songwriters besides Joni Mitchell have even tried to say. As Browne phrases it in one song, "No one ever talks about their feelings anyway/Without dressing them in dreams and laughter./I guess it's just too painful otherwise." The lyrics do not make it a "theme" album in the strict-constructionist sense of the term. One could listen only to the two songs that impressed me most—Fountain of Sorrow, which builds upon the image of a photograph and what it caught in a person the narrator loved, and the magnificently apocalyptic Before the Deluge—and see no particular need for penning them off in the same album. But, taken as a whole, the thing sure does work as a whole. The melodies leave the impression of compactness and integration—Browne uses certain characteristic chord progressions he refers to as naturally as some people light pipes and others play with their eyeglasses. And the overall drift of the words is toward a gentle but determined probing for self-understanding.

Browne's singing, never flashy, works better on this personal level than it did in, say, "For Everyone," his album of excellent but diverse songs. His backing is an elusive but precise adaptation of rock and gentler styles, none of which ever sound quite this way behind anyone else. David Lindley's graceful electric guitar has a lot to with it—he seems to sense with nearly uncanny insight what Browne is trying to do—and so does the way Browne sees to it that every instrument can be heard clearly at any given moment. I found only one lyric line in the whole album that I didn't like much, something in a stolen-Chevrolet metaphor about hot-wiring reality, and that may be only my prejudices wanting the car to be a BMW or Mercedes or something other than a Chevy. My overall impression is that Jackson Browne has honestly confronted himself and managed to put a startling percentage of his most elusive impressions into words and music. Only one thing makes that possible: grace. There's nothing else quite like it.

Noel Coppage

JACKSON BROWNE: Late for the Sky. Jackson Browne (vocals, piano, acoustic guitar); David Lindley (electric guitar, slide guitar, fiddle); Doug Haywood (bass, vocal harmony); Larry Zack (drums, percussion); Jai Winding (piano, organ). Late for the Sky; Fountain of Sorrow; Farther On; The Late Show; The Road and the Sky; For a Dancer; Walking Slow; Before the Deluge. ASYLUM 7E-1017 $6.98, © ET-81017 $7.98, © TC-51017 $7.98.

ROCK SOUP: ROY WOOD DISTILLS THE FIFTIES

Wit, irreverence, and general wizardry season a one-album summation of a whole pop-music era

Roy Wood is, of course, a former member of the Move (for background on that remarkable outfit, see Greg Shaw's admirable article in the April 1973 issue). Although Wizzard is his "group," it becomes obvious, after listening to their fascinating new United Artists album a few times, that he probably keeps the extra guys around only to do the things he hasn't got time for, since the album is entirely his in both conception and execution. "Introducing Eddy and the Falcons" is, I would say, as important in its own way as "Sgt. Pepper" was; certainly it is a comparable blending of technique, black humor, and that strain of advanced melancholia that seems to be peculiar to the English.
What Wood has done is to present a retrospective of the music of notable groups, personalities, and pop producers from the Fifties and pre-Beatles Sixties. He has the knack of taking snippets from almost every familiar pop record of the last twenty years and mixing them together into little musical anagrams, much as Vladimir Nabokov works literary allusions into his novels. But Wood, like Nabokov, is much more than a mere trickster. His dazzling imagination and sureness of technique enable him to play a wondrous game of "What If. . . ." Thus, though all the songs here were written by Wood, he has written them—boxes within boxes—for various famous figures to sing in the style of other famous figures. And so we are favored with what seems to be Neil Sedaka singing a Paul Anka-type tune in Come Back, Karen. Freddie Cannon singing a Jerry Lee Lewis number called Brand New "88", and an amalgam of Bobby Rydell, Frankie Avalon, and Dion in You Got Me Runnin'. Gene Vincent and Elvis Presley are individually treated in Crazy Jeans and I Dun Lotsa Cryin' Over You. the Presley satire being especially notable because it re-creates the sound of his very early recordings and features a guitar solo which has nothing to do with the tune—just as Presley's original guitarist Scotty Moore played a solo on Too Much that was, to say the least, wayward.

Eddy's Rock, an instrumental, fuses the styles of period guitarists Link Wray and Duane Eddy. We're Gonna Rock 'n Roll Tonight sounds like Paul McCartney singing much too hard on a Rolling Stones number from their Brown Sugar days, and it also contains a perfect and perfectly hilarious imitation (by Wood) of Stones guitarist Keith Richard imitating Chuck Berry. Everyday I Wonder is sort of a concerto based on Del Shannon's Runaway and Hats Off to Larry, but it is sung à la the Beach Boys.

I have saved the best for last, the amazing This Is the Story of My Love (Baby), and I must warn you that repeated listenings to it are positively addicting. Imagine that Phil Spector had done the basic instrumental tracks for a Ronettes date, using his patented "wall of sound" techniques, but the Ronettes forgot to show up and Spector abandoned the tapes. Then along came the Four Seasons and their producer Bob Crewe. The Seasons added a vocal in the Ronettes style, with an assist by the Shirelles, and Crewe did some overdubs on the instrumental tracks. The result, as Wood conjures it up, is the ultimate fruition and the ultimate satire of Greater New York and New Jersey Rock circa 1962. Melodically, it is a fine tune, and even while Wood is having fun kidding the period orchestration he is using it to do something grand.

Roy Wood is a considerable musician. He is, and should be recognized as, a composer. "Introducing Eddy and the Falcons" is the Fledermaus of rock-and-roll; it has much to say about the forms of rock, about the belief that many people had in it as music and/or spiritual salvation, and about the notables who were and are its stars. The album is also a supreme and sublime joke. If someone should ask Wood how he rates himself as a modern contemporary composer he could (again, like Nabokov) answer with some justification, "The view is very good from up here."

Joel Vance

WIZZARD: Introducing Eddy and the Falcons. Roy Wood (vocals, guitars, drums, oboe, cello, bass, string bass, keyboards, bassoon, tenor and baritone saxophones, percussion, arranger); Rick Price (guitar, vocals, percussion, bass); Nick Pentelow (tenor saxophone); Mike Burney (baritone and tenor saxophones); Keith Smart (drums); Charlie Grima (percussion); Bill Hunt (piano); Bob Brady (piano, vocals). Eddy's Rock; Brand New "88"; You Got Me Runnin'; I Dun Lotsa Cryin' Over You; This Is the Story of My Love (Baby); Everyday I Wonder; Crazy Jeans; Come Back Karen; We're Gonna Rock 'n Roll Tonight. UNITED ARTISTS UA-LA219-G $6.98, © UA-EA219-G $7.98.
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CIRCLE NO. 30 ON READER SERVICE CARD
IMAGINE THE IMPORTANCE OF THE BEAT IN ROCK

GETTING THE FUNDAMENTALS RIGHT, ESPECIALLY THE BEAT. THE MATERIAL, NOT SURPRISINGLY, IS SOLID, NO-NONSENSE STUFF, REMINISCENT OF THE EARLY GUESS WHO TUNES BACHMAN HELPED WRITE—NOTHING VERY PROFUND IS ATTEMPTED, BUT.

ELVIN BISHOP

A TUNEFUL, LOVINGLY PRODUCED ALBUM

AGAIN, THE WORK ON THE BASICS IS SCRUPILOUS, AND ROLL DOWN THE HIGHWAY IS DOWNRIGHT CAPTIVATING. THE GUITAR SOLOS, BY RANDY AND BLAIR THORNTON, MAY EVENTUALLY DEFINE A STYLE BY WHICH THE BAND CAN BE IDENTIFIED—I'VE ALWAYS THOUGHT BACHMAN'S WAY OF SLURRING HIGH NOTES WAS PRETTY STYLISH—BUT IT WOULD BE EASIER ON ALL OF US IF THE VOCALS WERE DOING THAT.

BLOOD, SWEAT & TEARS

THEMSELVES. AT THE BEGINNING B&S&T WAS UNUSUAL FOR ITS TIME. THEIR FIRST ALBUM APPEARED IN 1967, WHEN THE ERRATIC BUT MIGHTILY TALENTED AL KOOPER DECIDED TO FORM A MINIATURE VERSION OF A BIG BAND THAT WOULD FUSE THE JAZZ AND ROCK STYLES, THE FORMER COMING

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

Monophonic recordings are indicated by the symbol [M].

The first listing is the one reviewed; other formats, if available, follow it.
from a horn section and the latter from the rhythm section and front vocalist. Kooper was the rhythm producer but the wrong vocalist for the band; Clayton-Thomas was the right vocalist but the wrong star. When C-T left BS&T the band promptly went into an accelerated decline, ending in the third of three nowhere albums, of which "Mirror Image" is the third.

BS&T was an interesting idea, but in 1974 they sound out-of-date. Although the vocals of Jerry Fischer and Jerry LaCroix are agile and much more pleasant to hear than either Kooper's or Clayton-Thomas' were, their addition to the group has, I fear, come too late. BS&T is playing a death scene which has already gone on too long. They ought to close up shop and go gracefully into history while they still have some grace left.

JACKSON BROWNE: Late for the Sky (see Best of the Month, page 77)

THE COMMODORES: Machine Gun. The Commodores (vocals and instrumental). Machine Gun; Young Girls Are My Weakness; I Feel Sanctified; The Bump; Rapid Fire; The Assembly Line; and four others. Motown. $6.98, © 7798 HT $7.98, ©7798 HC $7.98.

Performance: Derivative Recording: Good

Whatever happened to the Motown Sound? However mechanical it might have been, the Motown Sound did produce four or five performers of note—not counting the genius Stevie Wonder, who is in a class by himself. Motown was also the training ground for nearly a score of outstanding writers, producers and arrangers. But since the relocation of Motown's corporate headquarters to Los Angeles, the regional kick of the Sound—reflecting the efforts of a small, highly disciplined corps of amateurs doing very professional work—has all but disappeared. In its place is the bland, smooth, Caesar-salad sound of everylast every other black, white, or native, that comes out of Los Angeles.

The sound of the Commodores (Machine Gun, an instrumental, was a hit single) is a mixture of Billy Preston's keyboard style, Sly Stone's rhythm figures, and the Ohio Players' ensemble playing and vocals. But why listen to the Commodores when you can listen to the other people whose sounds they have appropriated without improving? The Commodores are a well-drilled dance band, but we have enough of those already.

JACKIE DESHANNON: Your Baby Is a Lady. Jackie DeShannon (vocals); orchestra. Small Town Talk; The Other Side of Me; You've Changed; I Won't Let You Go; You Touch and You Go; and five others. ATLANTIC SD 7303 $6.98, © TP 7303 $7.97, © CS 7303 $7.97.

Performance: Good, but a bit unreal Recording: Good

Jackie DeShannon's been around for quite a while now, and this is another of her solidly professional, conspicuously well-crafted efforts. She's still best in her own stuff—Your Baby Is a Lady. You Touch and You Go—and good enough even on Steven Schwartz's dismal That's What I'm Here For. The problem is that she has unhappily chosen to remain one of an increasing army of "mod-girl-type" performers at a time when common sense and a glance at the calendar will tell you that she has become a woman now and really ought to try composing and performing like one. It's ungalant of me, I know, but that's how her rather unreal performances strike me.

P.R.

ECSTASY, PASSION & PAIN. Ecstasy, Passion & Pain (vocals and instrumental). Ask Me; Let's Love; I Wouldn't Give You Up; I'll Take the Blame; Try to Believe Me; Good Things Don't Last Forever; and four others. ROULETTE SR 3013 $4.98. © 8045-3013 H §6.98, © 5045-3013 H §6.98.

Performance: Fair Recording: Good

By the time I wake up tomorrow morning or by the time you read this, Ecstasy, Passion & Pain may occupy all one hundred positions of the top-one-hundred records charts. Well, it could happen. As Fats Waller said, "One never knows, do one?" But this is one of the most distinguished LPs. The group is okay. Judging from the photos on the cover they've been around for a while; no spring chickens they. But the material is what you'd expect if Tin Pan Alley were still alive and grinding out vocal and instrumental hits. The production, arrangements, back-up musicians, and vocal performances are all professional, but (ahem) there's no ecstasy, passion, or pain in what's going on here—and no life either.

I get the feeling that Ecstasy, Passion & Pain were a lounge act, working second-string clubs in Pennsylvania, who were plucked off the road and thrown into a studio to record a series of tunes written by a staff writer for a music publishing company (who also made up their name). Despite the group's professional and experienced efforts the album is dull: they have acquitted themselves with honor and expertise, but everybody and everything else has failed them.

Life on the second-string club circuit is hardly swell. "It's a cruel life. But to have the corpse of Tin Pan Alley rise from the grave and put its dead, clammy hand on you is even worse. All of a sudden the Coal Towne Motor Lodge begins to look good; it don't uplift the spirit but it's steady. And you just might get held over."

J.V.

MARIANA DE FE: Lisboa dos Namorados. Maria da Fé (vocals); Manuel and José Luis Nobre Costa (Portuguese guitars); Julio Gomes and Raul Silva (Spanish guitar); Lucio de Palha (Sheets of Straw); Retrato (A Picture); Bailai Raparigas (Let's Dance, Girls); Desperta, Desperta Povo (Awake, Awake, People); As Minhas Horas (My Hours); Lisboa dos Namorados (Lisbon of the Young Lovers); and six others. MONITOR MFS 755 $9.98.

Performance: Elegant gloom Recording: Good

Anyone who has ever sat far away from the microphone, in a Lisboa cafe listening to a skilled fado singer interpreting those lonely guitar music against the melancholy accompaniment of soft guitars can never even hear the word again without catching his breath at the mere thought of such music. The music itself, with its melancholy Moorish overtones (the word fado is believed to derive from the same root as the word "fate"), blends with the soft accents of the Portuguese tongue in a way that would seem to make the very idea of singing fado in any other language unthinkable.

Maria da Fé, who has been singing fado in Lisbon restaurants and in theater revues in Portuguese casinos since the age of seventeen, is considered one of the best exponents of the style in her native land. She has sung in Brazil, in Germany, and France, and in Mozambique. Here she offers sad stories of the death of love, songs about lovelorn girls with gentle souls whose names their lovers have ceased to call, songs of long hours that pass leadenly for the abandoned, songs of the churchbells gloomily tolling in mountain villages. She also sings ballads about freedom (Liberação and Awake, Awake, People), but somehow even these hortatory incantations seem to be drowning in the same mood of doom-haunted reverie.

If I have any reservations about Maria da Fé's talents, it is that her protestations of despair seem strangely at odds with a certain youthful, unstrained quality in her voice. Yet she handles every melody with impressive control, and the accompaniments by Spanish and Portuguese guitars are idiomatic and melodic. At times I found myself longing for the more impassioned fado of Fernanda Maria, whose remarkable skill with this music also has been captured on an earlier release from Monitor; but Maria da Fé is obviously a specialist to be reckoned with in her own right. I just get the feeling, what with her recent awards at the Eurovision Festival and the new liberalism in Portugal and all, that she might secretly be less miserable than she tries so hard to sound.

J.P.

JUDY GARLAND: More Than a Memory. Judy Garland (vocals); various orchestras. Fascinating Rhythm; Figaro; The Last Call for Love; Don't Tell Me That Story; Heartbreak Hotel Home; Joe; and six others. STAN- YAN 10095 $6.98 (available by mail from Staney Record Co., 8440 Santa Monica Blvd., Los Angeles, Calif. 90069).

Performance: Saved by the cat Recording: Good

We may be starting to scrape the bottom of the barrel with Judy. Even though part of the royalties from this one are supposed to go to help retarded children, listening to some of this stuff made me want to suggest to Staney (Continued on page 86)
The true test of any speaker system is how it sounds at home. So when we designed the BOSE 501 Direct/Reflecting® speaker we kept your ear and your room in mind.*

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Compare the 501 to the most expensive of the conventional direct radiating speakers, then ask your dealer for a pair to audition in your own home...where it counts. Appreciate what it means to be unconventional.

*The design, development, and technology behind the BOSE Direct/Reflecting® speakers is presented by Dr. Bose in the article, "Sound Recording and Reproduction," published in TECHNOLOGY REVIEW (MIT), Vol. 75, No. 7, June 73. Reprints are available from BOSE for fifty cents.
THE ROLLING STONES

Doing the rock 'n roll shrug with Noel Coppage

The Rolling Stones made themselves welcome in the first place by pounding the mind the way some drugs do, and for the same purposes. I myself have always used them that way, to clean out my head by setting up a bombardment that simply overwhelms preoccupation with the pesky subtleties that sneak in when humor ducks out. When I look at it from the angle of the stylistically ideal—which is to say blunt, vulgar, and semihonest—Stones fan, I pick up the album with the thought worded this way: All right, come on in, you vile bastards. I've got something for you to stomp. Got some garbage in here, and if you can get its profile down so I can see over it, maybe someday I can return the favor.

I worry about the likelihood of self-kidding in these idealized moments. Does it hurt, this nagging reservation which has it that we all know damned well they aren't vile bastards but are in fact fairly solid (if grass-smoking) citizens, very likely kind to their mothers? Does it hurt to know they don't have the proper backgrounds to pass for Hell's Angels moonlighting as janitors for the psyche? Does it hurt to know that Mick Jagger was majoring in business in college and events have proved he didn't drop out at all but announced his early graduation back when he moved from classroom to rock band? Well, sure, it hurts some, but lately it hurts only when I don't laugh, and every time I think of the logical thing to say at this point, of course, is that that's show biz.

"It's Only Rock'n Roll," either way you take it, is just another way of saying that. If there were an absolute standard for judging these things, it would be fair to say this is an offhand, moderate-energy performance from this particular band; it would be fair to call the album a product pretty well matched to a market wherein an obese demand naturally leans on the impetus to take risks. But some of the garbage we've got to stomp down is this tendency to traffic in ideals and abstractions. The Stones are, in this album as in others, instinctive journalists (journalism being another useful and respected drug and/or janitorial service of our times), and if the report lacks spark, at least some of the blame rests with the event being covered.

And then a new Stones album is itself an event as well, making for a situation more convoluted than usual. Pauline Kael says any movie—and you could say any recording—that has been turned into an event doesn't have to be good to be attractive; it's attractive simply because it is an event. It also tends to draw solicitous reviews from some of Pauline's colleagues and some of mine, possibly because they feel events are good for society. Probably they are, while they're going on—but how long does an event go on being an event? I can't help noticing that The Poseidon Adventure has long since been auctioned off to television, where it can be interrupted every fifteen minutes with yammering about body odor, nagging backache, and irregular bowel movements, all to be viewed in some households on a black-and-white Japanese television set with a twelve-inch screen, measured diagonally. Several Stones albums, happily, have gotten over being events in the past: "Beggars Banquet," "Let It Bleed," and "Sticky Fingers" really was a good string of albums after the pulse slowed down to its normal rhythm.

Stones albums, though, have been not simply happenings in their time; they've also been peculiarly responsive to their time. There is no way one could adjust his mind to make "Sticky Fingers"—a much better album, in purely aesthetic terms—as apt just now as this new one is. "Beggars Banquet" was recorded when it was widely believed that rock was art and art was life. Accordingly, it was vibrant with crusading fervor. "Sticky Fingers" was recorded after several doubts were raised about both equations, and considerable old-time coping seemed necessary on several other fronts as well, and it took energy from the tension in that situation. "Exile on Main Street" and "Goat's Head Soup" caught us—thanks to Bowie, Alice Cooper, Nixon, and countless others—cynical and woozy, and they sound cynical and woozy. "It's Only Rock'n Roll" seems to be reading the latest phase as an effort to learn how to shrug again, and it suggests something of how self-conscious we are about that. There is no prescription for how to live a glamorous outlaw life (like a Rolling Stone of recent mythology) in here, just some songs treated as some songs. It's back to life-size for us, the album seems to say, and the listener's mind may construe there somewhere some advice (which, to be fair about it, the Stones do not actually give) to accept imperfections in self and others. That message is somewhat more explicit in the endings of some of the better novels these days; Wilfrid Sheed's Max Jamison finds a little peace for himself by concluding he must be "a son-of-a-bitch in an imperfect world." Once you admit it, it may not be so bad—that's about as good a fortune-cookie aphorism as any, for the moment. The Stones do not write these fortunes, but they get a relatively early peek into the cookies (think of them, if you just must, as phased cookies), once the people who actually do practice art are done with them. What the Stones do is turn these little notes into billboards, the unveiling of which are events. It is a real service they perform; the artists cannot do it—artists aren't good enough businessmen to stage events, and they refuse to have anything to do with billboards anyway.

This latest turn of events should not be unduly lamented as lackluster; there is some luster to it, however muted by irony. The title song has all the old energy, has the Stones hitting several standardized licks and using some old repeats and other gimmicks as if they still see a freshness in it all—but the title song deals directly with the premise, with what it is now time for, which means it doesn't have to bother much with the ambiguities that come up when the subject is actually explored. The opener, If You Can't Rock Me, mostly calls attention to the fact that a fine album-opener Brown Sugar was, but on another level it also suggests that this is the normal way to start a show that must go on. Till the Next Goodbye and If You Want to Be My Friend—in there we go again) aesthetic terms the other rather good songs—are normal Rolling Stones ways of keeping it...
going, the sudden shift to acoustic guitars being as sound a business decision here as it was in the case of Wild Horses. The Stones can’t do a Ruby Tuesday every time they come to the lyrical part of the show, but then neither can anyone else. There’s a curious thing called Luxury starting the other side: it finds Jagger sort of acknowledging Caribbean influences simply by pronouncing the words as if he’d been shut in with some old Harry Belafonte records for two or three hard days—while everything else about the performance is straight-from-the-hip rock-and-roll. It is, perhaps, another aspect of what the title means by “only.” Short and Curlies is another sort of thing the Stones must feel is expected of them, the expectation dating from when they were brash pioneers on the frontier of pop-music obscenity, a frontier that no longer exists.

A song-by-song analysis is tough slogging, though, for the Stones are subtle. They are even subtle about being subtle. Analysis of what Jagger is doing seldom leads anywhere, as Mick for some time has been doing his public thing in a show-biz context. Try, instead, listening to the way Keith Richards plays rhythm guitar in several of these selections. But (subtly!) first think about Keith. The analytical thinkers among the Stones watchers I know have found themselves watching mostly Keith in a Stones concert or movie. A few say they key on Charlie Watts now and then to gain perspective from his disarmingly wide smile—which says, plainly enough, “Just keep prancing, Mick, that’s what you’re good at.” But Keith has the Great Stones Face that belongs in the Countenance Hall of Fame with those of Johnny Cash, Gary Cooper, Montgomery Clift . . . , and I wish I could have seen it when this album was being recorded. It—that face—has always conveyed a fascinating intensity that for me counterbalanced Mick’s efficient exhortations of the masses. One has to suspend disbelief to picture Mick actually doing a little street fighting, but Keith always looked ready, willing, and able to do it. That face has done wonders for the Stones’ in-person and on-screen credibility, and Keith’s snarling, rhythmic guitar, another spokesman for the same personality, has done something similar for the recordings. So listen to him here and tell me: is he now also resigned to the idea that life is life-sized and rock-and-roll is only rock-and-roll? Sounds that way to me. And if Keith is sounding that way, a lot of us must be sounding that way.

Of course, as the Stones indicate in Fingerprint File, the new album’s final song, we are being overheard by all sorts of crazy bureaucrats these days. That could affect the way we sound. And then there’s no accounting for how all this shrugging practice, and the blushing that goes with it, might be affecting our hearing.

THE ROLLING STONES: It’s Only Rock’n Roll. Rolling Stones (vocals and instruments). If You Can’t Rock Me; Ain’t Too Proud to Beg; It’s Only Rock’n Roll; Till the Next Goodbye; Time Waits for No One; Luxury; Dance Little Sister; If You Really Want to Be My Friend; Short and Curlies; Fingerprint File. ROLLING STONES RECORDS COC-79101 $6.98.
that they change the name of the album to "Judy Garland's Flip-side Flops." But then something happened to bring me up short and make me change my mind. For what seemed like hours I had been listening to the lady's dubious, quavery-voiced approaches to Fascinating Rhythm; Figaro; The Last Call for Love; and four songs she recorded for Columbia in 1953 with the Paul Weston orchestra—all four, understandingly, deleted from the catalog in short order—when up came four other songs she recorded for the cartoon feature Gay Purr-ee in 1962. On the soundtrack of that movie, Miss Garland supplied the voice of a spirited kitten who runs away from home only to fall in with a soucrel of a tom cat in the French capital. The songs, by Harold Arlen, are Rose's Red, Violet's Blue; Take My Hand; Parée; Paris Is a Lonely Town; and Little Drops of Rain. They are all first-rate little ballads, and Miss Garland did as right by them as she had done by Arlen's Over the Rainbow in her childhood. They are worth the price of the album. The rest, lumbering through the years from 1939 to 1961, do little justice to the talent they purport to be showcasing. A fulsome tribute by Rod McKuen is supplied.

P.K.

MARVIN HAMLISCH: The Entertainer.

Marvin Hamlisch (piano); orchestra. Maple Leaf Rag; Grandpa's Spells; Bethena; Stop-Time Rag; Rushing Right (w/strings); This Time; Stare; and three others; MCA MCA-2115 $6.98, © MCAT-2115 $7.98, © MCAC-2115 $7.98.

Performance: Good

Recording: Good

This is an album to suspend all judgment about: just pick out the tracks you like and have a guiltless wallow. Marvin Hamlisch is, of course, the Hollywood Wunderkind who made his first appearance at the last Academy Award marathon to scoop up awards than a Swiss figure clock set to strike every minute. In picking up his Oscar for The Entertainer, the leitmotif that he used throughout the scoring of The Sting, Marvin thanked both Scott Joplin and George Roy Hill, the director who first suggested that Marvin look into ragtime. Once on the scene, Marvin was off and running, and he hasn't stopped yet. His single has been an enormous hit, he appears on talk shows and gives magazine interviews with the same alacrity he displayed as he received his awards, and I'm a bit disappointed that he hasn't sent me an autographed picture yet to accompany this new album. Well, it isn't all bad living in a Hamlisch-pervaded world, and I've got to say that I've had an awfully good time with some of the tracks here. To say that I've had enough, already, of the title tune would be mising words. And not to say that Irving Berlin's I Love a Piano comes out sounding more like a Ray Noble performance of the mid Thirties (complete with a rag-jazz violin solo by Bobby Bruce) than anything resembling ragtime, or that Marvin's performance of Maple Leaf Rag would send a ragtime purist into a quavering rage, would be, in some odd sort of way, to deny the fun I had with so many other tracks.

The arrangements, all by Hamlisch with the exception of the brilliant one by Gunther Schuller for The Entertainer, are serviceably glossy, and his piano playing does have a certain rapture, mixing joie de vivre and chutzpah in equal measure. Of course, this album has almost nothing to do with real ragtime or its meaning—for that I suggest you check into back issues of this magazine, one of the places where it was rediscovered and given its proper artistic due years before Hollywood jumped on the bandwagon. This album is Marvin Hamlisch's version of ragtime, and it is as often momentarily satisfying and pleasureable as only the latest, sleek commercial product can be.

Just don't bother me with this one in June: I like it for now.

RECORDING OF SPECIAL MERIT

ISLEY BROTHERS: Live It Up. Ronald, Rudolph, and Kelly Isley (vocals); Marvin Isley (bass); Ernest Isley (guitar); other musicians. Live It Up; Brown Eyed Girl; Need a Little Taste of Love; Lover's Eve; and three others. T-Neck PZ 33070 $6.98, © PZA 33070 $7.98, © PZT 33070 $7.98.

Performance: Superb

Recording: Very good

Ronald Isley is the finest vocalist in black music today, and one of the best vocalists in any kind of music. Only Ray Charles and the late Otis Redding had the same sure touch. This remarkable man, who must be safely in his forties, has the energy of a teenager. He is more exciting than James Brown ever will be again, and more knowledgeable with a ballad than anyone except Charles. He has a consistent history of quality going back more than twenty years. He is voluptuous and disciplined, a bonedhearted singer with the assured technique of a Sinatra and the passion of a Leadbelly.

The "Live It Up" album is more or less a vehicle for a Ronald Isley recital; his brothers Kelly and Rudolph contribute their customary superb vocal back-up. Their youngest brother Ernest, on guitar, is still nosily emulative of Jimi Hendrix (who was an Isley sideman before his fame), but the small combo and saxophones and reeds most wondrously (the Isleys have always had good supporting musicians). The brothers have returned to writing their own material after a dry spell, and, though none of the songs are absolute knockouts, they are far superior to what almost anyone else is doing these days. Compared to
theinfantile,minstrel-show"funk"ofJames
BrownorthefalsettodivertissementsofCurtisMay-
field,theyareshininggemsofrichesthue.

Notcountingtheirbriefandunhappyasso-
ciation with Motown, where their individual-
ism clashed with that label's policy of discus-
ciation with 7E-1009 $6.98.

Bythis time everyone must be aware that
Mick Jagger has a younger brother, Chris,
whoalsohasvisionsofsugarplum pop star-
dom dancing in his head. His second album,
however, didn't mind a little rubato once in a
while as Stompin' is wearin' at times, his choice of
a batch of his own meandering songs, a voice
that (thankfully) can seldom be heard amid the
clatter of a hyperthyroidal production, and the
performing skill of a day-old tamale. Where-
evther future lies, it isn't in music. It almost
broke Liberace's heart when his brother
George finally decided to leave show-biz. I
hope Mick is already bracing himself to bear
up when Chris makes the same Big Decision.

J.V.

CHRIS JAGGER: The Adventures of Valen-
tine Vox the Ventriloquist. Chris Jagger
(vocals and percussion): orchestra. Finger in
YourPie: Private Dick; River of Love. Like a
Dog; You're You; and five others. ASYLUM
(vocals and percussion); orchestra. Finger in
Tine

CHRIS JAGGER: The Adventures of Valen-
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Your Pie: Private Dick; River of Love. Like a
Dog; You're You; and five others. ASYLUM
(vocals and percussion); orchestra. Finger in
Tine

DAVE JASEN: Rompin' Stompin' Ragtime.
Dave Jansen (piano). Jasen: Shoe String Rag;
Nobody's Rag. Lamb: Bohemia Rag; Toplin-
er Rag. Bloom: Spring Fever. Confrey: Nick-
el in the Slot. Belding: Good Gravy Rag. And
seven others. BLUE GOOSE 3002 $5.95.

Performance: Still pounding
Recording: Fair

This listener had already been exposed to
Dave Jansen's "rompin' stompin'" style of
ragtime in his first album for the Blue Goose
7E:1009 $6.98.

Performance: Poor
Recording: Fair

By this time everyone must be aware that
Mick Jagger has a younger brother, Chris,
who also has visions of sugarplum pop star-
dom dancing in his head. His second album,
however, didn't mind a little rubato once in a
while as Stompin' is wearin' at times, his choice of
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P.R.

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tine Vox the Ventriloquist. Chris Jagger
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CHRIS JAGGER: The Adventures of Valen-
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Dog; You're You; and five others. ASYLUM
(vocals and percussion); orchestra. Finger in
Tine
who wrote Kitten on the Keys) called Nickel in the Slot, which offers a clever imitation of a nickelodeon that breaks down. Tom Turpin's sassy Harlem Rag and about a dozen other pieces keep things struttin', stompin', and stompin' in the strict tempo to the thumpin' end. There's also, by the way of a colorful center, a marvelous cartoon of Mr. Jassen by R. Crumb.

P.K.

CAROLE KING: Wrap Around Joy. Carole King (vocals); instrumental accompaniment. Wrap Around Joy; Nightingale; Change in Mind; Change in Heart; Jazzman; You Gentle Me; A Night This Side of Dying; and six others. Onda SP 77024 $5.98.

Performance: Stale
Recording: Very good

Three years have passed since the release of Carole King's "Tapestry" album featuring the exquisite It's Too Late. Besides holding the trophy for all-time highest sales of an album, it contained much good and exciting music, and Ms. King was rightly cheered as an important craftswoman in the pop firmament. But that was three years ago, and her songwriting has seriously and steadily declined in quality since then. Her performances have become calcified. Her piano playing, once quite distinctive, now sounds as if she were trying to win the Silver Medal at a high school recital. Her songs about personal relations grow ever more vapid, bland, and fuzzy. Her attempts at social comment have been accurately described (by Mr. Noel Coppage) as "good Liberal cant." She becomes more mechanical with each passing disc. And she has unfortunately begun to imitate herself, no, check that: she has been imitating herself for some time. Now she's imitating others. As I listened to this album I was sure I'd heard it somewhere before. I did, fifteen years ago. It was by Johnny Mathis minus, of course, the occasional bouts with social conscience.

Ms. King's situation is reminiscent of Ralph Waldo Emerson's complaint about the poet Walt Whitman: "I thought he was going to make the song of the nation but he seems content to take the inventory."

J.V.

CLEO Laine: A Beautiful Thing. Cleo Laine (vocals); orchestra. Skip-A-Long Sam; Send in the Clowns; Life Is a Wheel; The Summer Knows; A Beautiful Thing; and five others. RCA CPL1-5059 $6.98, © CPS1-5059 $7.95, ©CPK1-5059 $7.95.

Performance: Sumptuously stylish
Recording: Excellent

Cleo Laine continues to demonstrate the kind of sumptuous high style and musicianship that leaves critics searching out new superlatives and, as yet, leaves the mass record public largely indifferent. This is another impressive album, beautifully produced by Mike Bernini (he was responsible for the early Streisand albums, but he will live on in legend in that he simultaneously produced the immortal Jerry Vale series of stunners), in which Laine again demonstrates her singular and creative approach to her material. There's so much here: Laine's diamond-hard phrasing in Skip-A-Long Sam, one of Donovan's wistier efforts, which she takes firmly by the lapels and brings to its communicative feet; her long lyrical line in the magnificent but unmelodic, Send In the Clowns; and, best of all, her refurbishing of I Loves You Porgy, the jazz singer's National Anthem and a song so often and so badly oversung that it has been nearly blurred out of existence. Typically, she goes back to the Gershwins' original concept of a simple girl singing about a basic emotion.

My only guess as to why Laine hasn't made it beyond her already large and still developing cult is that she somehow exudes a traditionally formal jazz-singer aura although in actuality her performances belie that label. I admit that she does not turn me definitely on, but neither does she turn me off. Instead, I find myself cooly admiring a pro's pro who is obviously in her artistic prime.

P.R.

LITTLE FEAT: Feats Don't Fail Me Now. Little Feat (vocals and instrumentals); Bonnie Bairt, Emmy Lou Harris, Fran Tate (backing vocals); Rack and Roll Doctor; Oh Atlanta: Long Distance Love; Front Page News: Feats Don't Fail Me Now; and four others.

Performance: Flat
Recording: Good

If you're going to love and thrill to Roger McGuinn's solo album you have to take a few things on faith—for starters, that without the Byrds, whom McGuinn founded, American contemporary music of the last ten years simply could not have gotten along, and that musicians, fans, mere listeners, and the Republic owe him a debt of gratitude, and a vote of thanks. There are, of course, considerable numbers of people who do believe these things, and unless you are one of them this album will sound awfully bland and halfhearted, something you wouldn't listen to all the way through were it not for the star's name and legend.

The material in the album, most of which McGuinn wrote, is flat, stale, and unprofitable. His vocals are delivered in a watery, whining way that only a historian or a true believer could love. Really, if you don't know or care a damn about the background, this album must be one of the non-events of the year.

J.V.

MARTIN MULL: In the Soop. Martin Mull (vocals, guitar); Les Daniels (vocals); Ed Wise (keyboards, vocals); Charles LaChappelle (bass); Al Kaufman (drums). Auto Mechanic: Consuela Was a Mexican; Marilyn: 98 Pound Weekend: Magazines: Garbage: and five others. Vanguard VSD-79338 $5.98.

Performance: Flat
Recording: Good

The main target of Martin Mull's satire has been middle-class glibness, including his own, and he was trying to draw a bead on that even way back when this early (previously unreleased) outing was recorded. But experiencing this album is like having a load of junk dumped in your front yard and finding nothing more interesting in it than some old moose antlers. Martin was trying to say more of it with music in his formative stages—the songs themselves are supposed to be funny—and to use dialogue (we are supposed to make believe we overhear) to set up the songs. But they are mostly inane, grab-bag affairs. Margie the Midget is perhaps marginally successful, but Martin has since worked the midget gag the ones that are touched with at least an attractive sort of whimsy, such as 98 Pound Weekend, mainly recall people who did this kind of thing better—particularly Dan Hicks and His Hot Licks (up to the presence of a girl singer who sounds like Maryann Price). Although he's a pretty good musician for a child, Mull doesn't seem to care enough about music to do the kind of work on it required to shape it into the kind of weapon he needs for firing his harpoons. In other words, Tom Lehrer could have dashed off funnier songs on these subjects before breakfast, and perhaps more to the point—Tom Paxton, who also could have, would have junked (Continued on page 90)
At Pilot, our best four-channel receiver is our best stereo receiver.

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The Pilot 366 Four-Channel Receiver
most of these ideas even before he was awake.

N.C.

RECORDING OF SPECIAL MERIT

TRACY NELSON. Tracy Nelson (vocals, piano): Ron Cornelius, Reggie Young, Mac Gayden (guitars); Buddy Emmon (piano); Tommy Coghill (bass); Kenny Malone (drums); other musicians. Slow Fall: Love Has No Pride; Hold an Old Friend's Hand; Rock Me in Your Cradle; and six others. ATLANTIC SD 7310 $6.98, @ TP 7310 $7.98, © CS 7310 $7.98.

Performance: Excellent

Recording: Very good

I used to shock my friends by saying Tracy Nelson was a better white-girl blues singer than Janis Joplin, back in the early Mother Earth days—but Tracy never seemed to do the kind of album that would back me up. This time she just about has. Her phrasing and projection, when she's right, amount to a delicate and sometimes surprising weighing of soul against the kind of easy restraint we call class, and her sound is like silk. Where Janis was doing her blues singing in a rock format, Tracy does hers in sometimes vague settings, although country is a definite influence—and here she does a knockout duet in After the Fire Is Gone with the old Wandering Gypsies. Willie Nelson. Her albums had been plagued by thoroughly mediocre production until Bob Johnston, the old Dylan producer, improved matters a fair amount with this one. Among other things, he kept the horns from blaring across the vocals, got much more than studio money licks out of guitarists Reggie Young and Mac Gayden, and, simply, turned up the volume on Tommy Coghill's bass. His song selection was spotty, though. Bill Withers' slick Lean on Me is unworthy of Tracy. Love Has No Pride is catchy but contrived, and, anyway, it is firmly identified with Linda Ronstadt. And Tracy, perhaps trying to beef up skinny songs, sounds a little contrived herself—pressing a bit—in I Wish Someone Would Care and Johnston's Rock Me in Your Cradle. But she fires up the old Dylan song It Takes a Lot to Laugh, It Takes a Train to Cry for a wild and spookily good ride, and the way she tears into her own subtly chorded blues piece, Down So Low, just might blow you away. Her voice, when the song will permit, is mature and convincing. The album, for Tracy, is much more like it, but not yet quite it. N.C.

ESTHER PHILLIPS: Performance. Esther Phillips (vocals); instrumental accompaniment. I Feel the Same; Doing Our Thing; Disposable Society; Living Alone; and three others. KUDDU KU-18 $6.98.

Performance: Showy and shiny

Recording: Excellent

Esther Phillips is a sultry lady whose stock in trade is a kind of show-biz gospel. She is vital and aggressive without wielding the kind of voice that strikes the earsduds like a woodpecker. Like others in the business, she can groan and moan to match a woman in labor, but at her best she just dives adroitly into the depths of a capacious voice out of a kind of high squeak that is droll and appealing.

What she sings on this record is something else again. How many clichés can you find in this one? "You got to believe in yourself, try not to deceive yourself/You see life is what you make it/And just as long as we don't fake it/We're gonna make it..." I counted five, but a few may have escaped me. Miss Phillips' lyricist is also a remarkable grammarian ("...only God knows what He has in store for you and I") and a philospher who provides the singer with ballads about the ordeals of being a performer ("I'm a thing that makes music they don't understand/And they cheer me as I carry out my endless plan."). In other ditties, Miss Phillips deals by turns with the humiliation of being discarded like a paper plate in a "disposable society," of the loneliness of living alone, and of the theft of one of her lovers by a "low-down, low-down, lowdown, dirty, dirty woman." I used to send him over for salt," one line goes, "and she would give him plenty of sugar." You can see why Kudu Records, a spur branch of Motown, has chosen to print all the lyrics of every item on the program. I really liked Es-

THE POINTER SISTERS: Live at the Opera House. The Pointer Sisters (vocals); orchestra. Fairytale; Shaky Flat Blues; Salt Peanuts; Let It Be Me; Steam Heat; Yes We Can Can; Jada; and seven others. BLUE THUMB BTS 8002 two discs $9.98, © F 88002 $10.95, © I 88002 $10.95.

Performance: For fans

Recording: Good

My New Year’s resolution has been made: I formally resolve to deny that the Andrews Sisters exist or, for that matter, have ever existed. This exercise of sheer will offers the delights of not ever again listening to Bette Midler doing imitations of the Andrews Sisters, the remaining Andrews Sisters doing imitations of the original Andrews Sisters, and the Pointer Sisters doing imitations of Bette Midler’s imitations of the Andrews Sisters. This decision will free me for a whole new life, one that I intend to live without ever again looking at exposed navels, platform shoes, pigtails, wigs, or two-inch nails painted blood-red. And I’m trying to arrange for anyone caught
in Carmen Miranda drag to get a one-way passage to the Hedy Lamarr Film Festival that will be held continuously in the Falkland Islands.

As you may gather, I've had it! If you haven't, and case of Nostalgia is terminal, then your best bet is this new album by the Pointer Sisters. It comes to you straight from the stage of the San Francisco Opera House, and it seems to delight the citizens of the city with the nation's highest suicide and alcoholic rate. Since the Pointers' ability to amuse and entertain was always stretched, even in a brief TV spot, with the help of visuals, you can probably imagine the strain of listening to almost an hour of their dreary camp. By the time they got to "Bei Mir Bist Du Schoen my hackles had calcified and my decision was made. For those of you who intend to follow your addiction to the grim end, however, it should be a ball. As for me, I never received this album, I never listened to it, and I never reviewed it. And that's final. P.R.

SUZI QUATRO: Quatro. Suzi Quatro (vocals and bass); orchestra: Move It; The Wild One; Kondyke Kate; Cat Size; Savage Silk; and six others. CAPITOL ST-9201 $6.98.

Performance: Energetic Recording: Good

Suzi Quatro damned near knocks herself out here, but all the sound and fury doesn't hide the fact that her material is the thinnest possible (the old Lieber-Stoller Trouble, her own Cat Size). Janis Joplin herself was getting to be a bore long before her tragic death, and what pop needs now is hardly another perfumed imitation. Too bad Quatro won't calm down a little; she often seems to have real talent in her quieter moments.

THE RIGHTEOUS BROTHERS: Give It to the People. Righteous Brothers (vocals); orchestra: Dr. Rock and Roll; Dream On; Lines; Together Again; Give It to the People; and five others. CAPITOL ST-9201 $6.98.

Performance: Lively Recording: Massive

The Righteous Brothers manage to whip up a little excitement now and then, particularly with their chart hit Rock and Roll Heaven. They have a good, gritty, down-home singing style, and there can't be any doubt about their energy. This time out, though, they are enmeshed in a production that buzzes and whirs around them like that factory Chaplin worked in in Modern Times. Still, they remain consistently likable, and even manage to make themselves distinctly and entertainingly heard through the massive orchestral sound. P.R.

RECORDING OF SPECIAL MERIT

DOUG SAHM TEX-MEX TRIP: Groover's Paradise. Doug Sahm (vocals); instrumental accompaniment: Groover's Paradise; Devil Heart; Houston Chicks; For the Sake of Rock and Roll!; Beautiful Texas Sunshine; Girls Today (Don't Like to Sleep Alone); and four others. WARNER BROS. BS 2810 $6.98.

Performance: Reliable Recording: Good

Doug Sahm has a new band, but he is still disseminating the tried and true chili blues of Tex-Mex country-rock that he has been vending for ten years or more. His style hasn't changed. His songs are lightweight but sung with comfortable and comforting sincerity. The chord progressions are elementary, but they are honest and work perfectly. Doug Sahm and his various bands are among the few examples of rock groups that can stand still and yet get somewhere.

Sahm's latest outing features paeans to his beloved home state of Texas and his appreciation of its Mexican assimilates as people and as music-makers. From his earliest days, Sahm was happiest playing in the rough-and-tumble Texas clubs for a dancing, beer-drinking, brawling crowd. Even during his California years in the late Sixties he commented on the highs and doldrums of Haight-Ashbury rather than embracing them; he always considered himself a visitor from Texas, a country boy marveling at the way city folk ruined themselves. So he's buck home now and happy about it.

Fans of the departed Creedence Clearwater Revival may be interested to know that Sahm's new band has Doug Clifford as drummer and Stu Cook as bassist. They are as reliable—and as pedestrian—with Sahm as they were with Creedence. But never mind; Sahm's vocals, with their taco tang and beery froth, carry the album and bring it home. J.V.

GEORGE SEGAL: A Touch of Ragtime. George Segal (vocals and bongo); various other musicians and orchestra: Bennie Buday; Maple Leaf Rag; Charleston Rag; Solace; The Entertainer; and seven others. SIGNATURE BSL-16534 $5.98.

Performance: A laff riot Recording: Good

Present-day Hollywood's idea of an all-purpose leading man, George Segal—who seems to appear in every second film released, looking more and more like Louis Nye and acting more and more like a West Side Brian Aherne—has a "fun" gimmick for his talk-show appearances: he plays the banjo and sings hokey old songs. When the laughs subside he often allows that when he was in high school he had a band called "Bruno Lynch and His Imperial Jazzband" and that he was Bruno Lynch's "Honestogod, aren't some people just the livin' end?"

Not content with these appearances, Segal has lately oozed over into recordings: this one has him singing ragtime "featuring the music of Scott Joplin," which means three tracks (Solace, The Entertainer, and Maple Leaf Rag) out of twelve. It's all done with the pseudo-dip, tongue-in-cheek whimsy of a hippopotamus dancing the gavotte. At last he has found his ideal leading lady, Teresa Brewer; she appears with him on several bands (her husband owns Signature Records), and their music making if You Like Me leaves an indelible impression. For some mysterious reason why he changes. His songs are lightweight but sung with comfortable and comforting sincerity. The chord progressions are elementary, but they are honest and work perfectly. Doug Sahm and his various bands are among the few examples of rock groups that can stand still and yet get somewhere.

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Black music in the Americas runs in many streams, but it doesn’t change much. Whether you’re talking about Chicago blues, Memphis funk, or Jamaican reggae, the styles have been set, often decades or generations ago, and it is an unspoken axiom of blues-based music that there is really no such thing as a new riff. The emergence of a genuine innovator like Sly Stone is therefore rare indeed. The burden of black music’s credibility thus lies with the interpreter. Taj Mahal is one of the finest interpreters we have.

Unlike such a performer as Al Green (or even Sly today), who will work out of a strictly defined and commercially proved style, Taj has jumped all over the map and the marketplace. His first album book-ended thundering rock-and-roll with Mississippi Delta bluesman Robert Johnson’s Celebrated Walking Blues, as if to say that there may indeed be a chronology at work, but time is basically meaningless in terms of black music’s vitality. By his second album, “The Natchl Blues,” Taj had settled into the groove which was to become a trademark and occasional curse for his next four outings—a laid-back, funky sort of back-porch drawl, delivered at a medium-to-slow tempo with an emphasis on relaxation. At their best, Taj’s blues are so very close in spiritual tone. And of all the album perfectly, rounding out a collection of musical sounds which, though diverse, are so very close in spiritual tone. And of all the album perfectly, rounding out a collection of musical sounds which, though diverse...
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TERRY SYLVESTER. Terry Sylvester (vocals); orchestra. End of the Line; Going Back; Make My Day; Indian Girl; Mary Anne; and five others. Epic KE 33076 $5.98, EA 33076 $6.98.

Performance: Wistful and woeful
Recording: Good

Terry Sylvester has been with the Hollies for five years. Now he’s branching out on his own with a collection of his own songs for his first solo album. It’s a pretty ragged, mopey job. He moons a lot — vocally and lyrically — about such things as an Indian Girl and The Trees the Flowers and the Shame, and the result is misty enough for a Charlie Chan movie. It’s all very fragile and, ultimately, monotonous.

P.R.

TRAFFIC: When the Eagle Flies. Traffic (vocals and instrumentals). Something New; Dream Gerrard; Graveyard People; Love; Memories of a Rock’n Rolla; Walking in the Wind; When the Eagle Flies. Island/Asylum 7E-1020 $6.98, ET-81020 $7.98, TC-51020 $7.98.

Performance: Good
Recording: Very good

Banding and disbanding, or blowing hot and cold, or whatever it is Traffic has been doing, is bound to have some effect and may be why Traffic now sounds like a semi-jazz band. This album is quite civilized, a little dreamy, and about as exciting as tiddlywinks. The songs do have something to say, occasionally, but they leave the impression that they are formless. The arrangements are airy, their most enduring aspect being Stevie Winwood’s taste on various electric keyboard instruments — can you imagine how obnoxious Keith Emerson or Rick Wakeman might become in some of these situations? If you can’t, be grateful and keep that little bit of innocence. Winwood’s vocals are again competent to the core, although I am bothered by the way he continues, after all these years, to sound like Marvin Gaye’s apprentice. All that said, I have a rather strange favorite among the selections: Love, a fragile little thing with six cliché-ridden lines of lyric. It somehow strikes me as honest, and is played with just the plaintive quality it needs. Memories of a Rock’n Rolla is another pretty good cut. The rest of it could safely be piped into the cardiac care unit at the local hospital.

N.C.

RECORDING OF SPECIAL MERIT

TINA TURNER: Tina Turns the Country On. Tina Turner (vocals); instrumental accompaniment. Bayou Song; Help Me Make It Through the Night; Tonight I’ll Be Staying Here with You; If You Love Me (Let Me Know); He Belongs to Me; and five others. United Artists UA-LA200-G $6.98, EA200-G $7.98.

Performance: Superb
Recording: Very good

Tina Turner takes on this collection of country tunes in a remarkable way. She ransacks them. She removes their stuffy and padding, dispenses with their corn and small-time sentimentality, and leaves only their shells. But she fills those shells with worldly, bittersweet tenderness.

Bayou Song is the perfect example, though it’s better on its own than most of the other material. It relates, in a matter-of-fact way,
the trials of poverty in a Louisiana hamlet. Any one of the half-dozen top country singers could, and would, sing it with a wooden dignity, glorying in their “po” folks’ credentials. But when Tina Turner sings it there’s no mucking about with nostalgia: this is the kind of hellhole that she has spent a good part of her life escaping. Her performance may be fairly compared to what another great black singer, Bessie Smith, managed to make of a ditty called Muddy Water, a huck pop tune romanticizing the Mississippi floods.

Of course, besides having the voice, technique, and spiritual savvy that place her in the class of a Bessie Smith or a Ma Rainey, Tina Turner is one of the most attractive, seductive women in the world, and what she does to Help Me Make It Through the Night is likely to cause some people to send her telegrams volunteering their friendship, especially after they’ve studied the album cover. She does indeed turn something on.

URUBAMBA. Urubamba (vocals and instruments). Urubamba; Heart of the Inca King: Singers; Fugitive of the High Plains; El Eco; and six others. COLUMBIA KC 32986 $6.98, © CA 32986 $7.98.

Performance: Slick ethnicity. Recording: Superb.

Urubamba is the name of a Peruvian river that flows past Machu Picchu, said to be the last city fortified by the Incas. It is also the new name of a group who used to call themselves Los Incas and who traveled all the way to Paris with Paul Simon to share the footlights with him back in 1965. Since then, they have recorded El Condor Pasa with Simon and Garfunkel to make pop-music history and collaborated with Simon in his first solo album on a song called Duncan. In 1973, they again toured with Simon, and one of the bands on this record, Kacharpari, was recorded during that tour.

What the group has to offer is music in the pentatonic scale based on folk material from the Andes, all the way from Argentina to Ecuador, which they believe is similar to the actual music of the Incas. They appear in blue jeans under serapes, and the music they make sounds a little like that. Tonnally, it is intensely atmospheric stuff played on authentic instruments: flutes of all sizes: panpipes: a drum made from the trunk of a weeping willow and covered with goatskin (and audible, they say, for miles); the charango, with its sound-chest fashioned out of the skin of an armadillo. But under the heavy atmosphere, as under the serapes, one finds, as it were, those blue jeans—an incongruous element of something high-strung, self-conscious, and slick: the jeans look like expensive ones. The compositions: in short, although they may be inspired by Incan scenery, are almost all the work of one J. Huirse and another named Uña Ramos. I can’t help but suspect that the tonal palette Mr. Milchberg so vividly employs is not an idiom that comes natural to him. The results, however, are certainly intriguing, there’s some gorgeous playing, especially in dirtier pieces like Pura Palapa and in the strikingly arranged Kacharpari—and the recorded sound is simply brilliant.

P.K.

THE VOICES OF EAST HARLEM: Can You Feel It? Voices of East Harlem (vocals); in-sturalment accompaniment. Can You Feel It; Jimmy Joe Lee; Amazing Love; So Rare; Take a Stand; and four others. JUNI- SHINE JSS-3504 $6.98, © 8156-3504 H $6.98, © 5156-3504 H $6.98.


Some scenes just beg for a troublemaker to come along and ask embarrassing questions. Question: how would you estimate the chances for recording success of a chorus called the Voices of Westchester, or the Voices of Durien, or the Voices of Chevy Chase? Not a fair question, perhaps. Trouble-makers have trouble being fair, so demanding is the art of making trouble. Anyway, it doesn’t hurt to think about the part white man’s guilt plays in this enterprise—ideas have rights. As Wilfrid Sheed says—when considering such a pleasant and unremarkable album as this. Some of these kids should emerge from this fluffy experience (talking about merely the musical part of it, you understand) as good singers who know something about chord relationships and whatnot, and that’s quite nice, but meanwhile the ten voices are so controlled, so regimented, so programmed that nothing real is permitted to happen. Teamwork. Bah, humbug! N.C.

WIZZARD: Introducing Eddy and the Falcons (see Best of the Month, page 78).

RECORDING OF SPECIAL MERIT

THE WOMBLES: Remember You’re a Womble. The Wombles (vocals and instruments). Wombbling Summer Party; Wombledon Sunset; The Wombling Song; Remember You’re a Womble; Exercise Is Good for You; and six others. COLUMBIA KC 33140 $5.98, © CA 33140 $6.98.

Performance: Versatile varmints. Recording: Excellent.

The Wombles, it seems, are whimsical creatures with burnt-orange faces shaped like carrot tops and furry bodies. They have their own series, which has run up giddy ratings in England over BBC-TV. Their press releases describe them as “mixing fun with ecology.” They have names like Orinoco, Bungo, Madame Cholet, and Great Uncle Bulgaria, who is the leader. Singles, such as The Wombling Song and Remember You’re a Womble, have sold “in excess of 250,000 copies.” Believe me, I fully expected to loathe the Wombles.

It turned out otherwise. These beaked and furry creatures have wormed their way into my heart, and I can’t imagine any but the surliest of wombokropes being able to resist them. For one thing, they have a sure hold on both their own cheerful Beatles-derived style and the styles of others. Let them loose on Calypso in the reggae-spoofing Banana Rock—a steel-drum approach to ecology—as they plead in West Indian accents with beach users to “womble up de rubbish and put it in de bin,” or dosey-do “with a womble-smile” at the Womble Square Dance, and you’ll see (or hear) at once why the Wombles have enchanted the British and should soon be well on their way to doing the same for the rest of the human race. There’s a text included for every song. Do get hold of this record any way you can. And don’t let the children monopolize it; considering the present economic situation, you probably need cheering up every bit as much as they do. P.K.

STEREO REVIEW
JANUARY

RECORDING OF SPECIAL MERIT

GEORGE BENSON: Willow Weep for Me. George Benson (guitar); Ron Cuber (baritone saxophone); Lonnie Smith (organ); Jimmy Lovelace, Ray Lucas, Marion Booker (drums), Benson's Rider: Bossa Rocka: Bayou: Farm Boy: and seven others, CBS $63 533 $6.98.

Performance: Straightforward and fine Recording: Very good

When George Benson was a teenager, he led the most popular rock-and-roll band in Pittsburgh. It was with this band that he first recorded—for an RCA subsidiary label—as singer and guitarist, but his father, a Charlie Christian admirer, was slowly turning Benson onto jazz. At eighteen, he joined organist Jack McDuff's group for three and one-half years, and toward the end of his tenure with McDuff, Prestige Records recorded him on his own. "Willow Weep for Me" was made two years later, in 1966, when Benson was under contract to Columbia.

The instrumentation here is fairly conservative compared with the trimmings given Benson on subsequent Verve, A&M, and CTI releases, but that works to his advantage. An inventive, swinging player, he was emerging on the jazz scene as the late Wes Montgomery came into full bloom, but unlike many of his colleagues—he did not seek inspiration from Montgomery. Benson's recent recordings have been more commercial, and I prefer those he made for Columbia, of which this is about the best. Saxophonist Ron Cuber—who is also heard with Benson on Columbia's "Spirituals to Swing—1967" set—seems to have disappeared from the scene, but he shouldn't have. Just why Columbia discontinued this album only to import it from one of their European subsidiaries (it is part of the "Aimez-vous le Jazz" series) is a mystery but it's good to have it back.

C A.


Performance: Tastefully swinging Recording: Very good

Don Ewell first played piano professionally in the mid-1930s. He has played with some of the best traditionalists, from Sidney Bechet and Bunk Johnson to Muggsy Spanier and Jack Teagarden, and he has served time with the Dukes of Dixieland. Ewell has also recorded extensively under his own name, including piano duets with Willie "The Lion" Smith and sessions using such star sidemen as Baby Dodds, Darnell Howard, and George Lewis. Yet Don Ewell is relatively unknown outside that small circle of jazz followers who think it all ended with the swing era. It's not that Ewell can't play the piano well; in fact, he is quite accomplished, but he is an interpreter rather than a creator, and, pleasant as he sounds, he lacks excitement.

The real stars of this set of trio and quartet performances are tenor saxophonist Buddy Tate and clarinetist Herb Hall. Tate, a veteran of the Andy Kirk and Count Basie bands, plays a relaxed, full-bodied tenor on the quartet selections that make up one side of this album. His style is graceful, and he builds his solos logically and effortlessly, swinging all the way. Herb Hall, younger brother of the late Edmond Hall, does not have his brother's reedy tone, but he is among the finest clarinetists of the New Orleans school on the scene today. The rhythm section works well with both men, and Ewell, an obviously dedicated player, brings it all together with taste and dignity.

C A.

JOHNNY GUARNIERI: Johnny Guarnieri Plays Harry Warren. Johnny Guarnieri (piano). Nagasaka: Shadow Waltz; September in the Rain; Lulu's Back in Town; You Must Have Been a Beautiful Baby; I Only Have Eyes for You; and six others. JIM TAYLOR PRESENTS JTP 102 $5.98 (from Jim Taylor Presents, Inc., 12311 Gratoit Avenue, Detroit, Mich. 48205).

Performance: Spirited Recording: Good

Johnny Guarnieri was pianist in the early Forties for the Gramercy Five, the "hot unit"
In the summer of 1950, an automobile accident hospitalized Clifford Brown for nearly a year. Except to a few musicians with whom he had worked in the Philadelphia area—including Miles Davis and Fats Navarro, players he patterned himself after—Brown was unknown at the time, and if the accident had been fatal it would probably have rated not much more than a passing mention in one of Down Beat’s columns. But Clifford Brown survived, developed his playing, and burst on the scene in 1953 in much the same way guitarist Charlie Christian had done some fifteen years earlier. Christian’s blustery musical rhetoric had lasted for three years, only to be cut down by tuberculosis in 1942, and so it was with Clifford Brown. In June of 1956, after tapeing a spectacular impromptu session in the back room of a Philadelphia music store, Brown was once again in a car accident, and this time we all lost. That final session turned up in a 1973 Columbia album (“The Beginning and the End,” KC 32284), and, if you don’t already have it, I suggest you get it.

Almost twenty years have passed since “Brownie” died, but there seems to be a new awareness of his music, and the catalog of currently available Clifford Brown albums is growing at an encouraging pace. Three recent releases, one from Blue Note and two from Trip, form a representative cross-section of Brown’s recorded legacy, and all can be recommended as worthy additions to any well-rounded collection of jazz.

The Blue Note set is a striking example of the high quality that label maintained before its take-over by United Artists. It contains all but one selection from Clifford Brown’s two albums under his leadership, and all can be recommended as worthy additions to any well-rounded collection of jazz. Clifford Brown & Max Roach: With Strings... (side one only) 216 $6.98 (available by mail from Onyx Records, 160 West 71st Street, New York, N.Y. 10023).

Performance: Polished swing Recording: Very good

Eulogizing Johnny Hodges in 1970, Duke Ellington observed that the Ellington band would never sound the same without him. It didn’t. Hodges’ distinct style not only characterized the Ellington Orchestra, it gave a bit of the orchestra’s sound to every session Hodges participated in on the outside. This album spans almost twenty years of Hodges’ long career. From two sides with the Ellington Orchestra in 1946 to four hitherto unreleased sides from a 1964 project that never saw completion. All but one of the sides were made on the first two tracks with the Ellington Orchestra in 1946, the final two sides with a quartet added. The project sounds dreadful, but the surviving sides from a 1964 project entitled “Evolution of Jazz.” The project sounds dreadful, but the surviving sides from a 1964 project entitled “Evolution of Jazz.”

STEREO REVIEW
JOHNNY HODGES
A twenty-year span of unique sax sounds

Vocalions past, Lawrence Brown plays himself very well. Russell Procope is suitably reedy, and Paul Gonsalves oozes in the style of the tenor romantics. It's all very, very good, every bit of it.

CA.

HELEN MERRILL. Helen Merrill (vocals); Clifford Brown (trumpet); Milt Hinton (bass); Oscar Pettiford (bass); others. Don't Explain; You'd Be So Nice to Come Home To; What's New; Falling in Love with Love; Yesterdays; Born to Be Blue; 'S Wonderful. TRIP TLP-5526 $5.98.

Performance: Past history
Recording: Good

Helen Merrill began her career as vocalist with an Earl Hines combo, leaving to go on her own about a year before this album was made in 1954. Since then she has lived in Japan, only recently returning to the United States. She made her last recording in 1968.

It is difficult to say how good a singer she was because this reissue is such a period piece. It was the custom in the Fifties for a lady singer, when she was doing a kind of jazz that was somewhere between mood music and torch singing, to remove the drive from a ballad and transform it into a comatose, plodding, heavy-breathing mess. As a stylist, Merrill fell somewhere in the area of her contemporaries June Christy and Julie London and, later, Morgana King. Their type of singing never appealed to me, and even in the Fifties I was embarrassed by it.

It was also a custom in albums of the time to include at least two up-tempo numbers to keep everybody awake and to demonstrate versatility. Here the chuggers are Falling in Love with Love and - what else? - 'S Wonderful. The presence of several jazz notables, headed here by Clifford Brown, was another common feature of such "jazz" records. I wouldn't want to say more than that he and the combo aren't trying to be much more than capable - which is understandable.

Helen Merrill's abilities, even given the circumstances and modes of the Eisenhower Era, are, for me, dubious. But she has continued to sing over the last twenty years, and it would be interesting to hear her now. I get the impression from this album that her intentions were good.

J.V. 

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CIRCLE NO. 4 ON READER SERVICE CARD
THE CASE OF THE MYSTERIOUS PROGRAM NOTES

Ever since the name and properties of the old Everest Records Co. were moved to the West Coast some years ago, record reviewers and consumers alike have complained of the inadequate, undistinguished, and sometimes unreliable program notes that have graced Everest releases. But a batch of more recent recordings on the Olympic label, distributed by Everest, of works of Mozart and Schubert (conducted by Bruno Walter) and of Beethoven (conducted by Wilhelm Furtwängler) are accompanied by notes that are not merely adequate but completely reliable — indeed, distinguished.

The question is, who wrote them? I found no attribution to any source, not even "Anon," but the more I read, the more I was haunted by a sense of having seen them before. It was not until I encountered the notes for the recording of Schubert's C Major Symphony (they begin with a quotation of Felix Mendelssohn writing to the London Philharmonic Symphony — "I hope to be able to send you a very extraordinary and excellent symphony by Fr. Schubert, the famous composer" — and end five paragraphs later with the words, "If Schubert had written nothing else but this symphony, his head would be among the stars") that the mask dropped, the fog lifted, and the mystery vanished.

Anyone brought up musically on the fine program notes offered to patrons of the New York Philharmonic Orchestra in the Toscanini-Mengelberg-Furtwängler era, or of the Philadelphia Orchestra of the same period, would know that the author of these words just had to be Lawrence Gilman. Gilman died in December of 1962, and rather well, too, for I last listened to the C Major Symphony with Furtwängler, giving as her reason: "I thought also how little I had hitherto appreciated the versatility of the Stockholm Orchestra. Not only was it capable of providing Walter with the response, in the Schubert, that he enjoyed in New York during his Philharmonic years, but its Mozart symphony was as secure as the one he recorded with the BBC Symphony (Victor album 258), and Eine Kleine Nachtmusik and the Figaro Overture were on the level of his versions of the so-called Columbia Symphony. But so conditioned were we all, by now, to suspicion, that it seemed to me desirable to check when and what Walter had performed with the Stockholm Philharmonic. The answer came back: Yes, he had directed the orchestra in 1950, and the repertoire included everything on the two discs save the Figaro Overture. Thank you very much. Stockholm Philharmonic — but I cannot swear that the performances on these discs are the same as those he conducted in Stockholm.

About the provenance of the Olympic Furtwängler material there is much less uncertainty — indeed, there is an almost complete certainty. Between the receipt of the records and the time of audition, this magazine received a communication from Elisabeth Furtwängler dated September 1974 in Clarens, Switzerland. She is, of course, the conductor's widow and has lived in French-speaking Switzerland for many years. (Clarens, a town not far from Montreux, has been a favorite of musicians for decades. It was there, in 1911-1912, that Igor Stravinsky lived while he was completing Le Sacre du Printemps.)

Mrs. Furtwängler writes (in part):

It has come to my attention that Everest Records have published a set of Beethoven Symphonies conducted by Wilhelm Furtwängler, .. . To my knowledge Everest Records has not obtained permission from the owners of the original recordings .. . regarding publishing of this material .. . I am certain that music lovers will understand that these recordings do not necessarily represent the true art of Wilhelm Furtwängler.

The Beethoven "set" that has reached me from Everest is an incomplete one, lacking as it does Symphonies Nos. 2 and 9. (Mrs. Furtwängler notes in her letter, incidentally, that to her knowledge: "There does not exist a recording of Beethoven's Second Symphony with Furtwängler", giving as her reason for this assertion the fact that the conductor seldom performed it.)

The label copy of the Olympic discs distributed by Everest is arranged in the first three columns of the tabulation below, and the fourth column contains source identifications supplied by Mrs. Furtwängler. As there are presently available on the American market

Olympic Number  | Symphony | Orchestra | Source
--- | --- | --- | ---
8124 | No. 1 | Amsterdam Concertgebouw | Unauthorized tape copy of European performance
8122 | No. 3 | Berlin Philharmonic | Vox/Turnabout
8126 | No. 5 | RAI-Rome Orchestra | See No. 1
8128 | No. 6 | " | "
8129 | No. 7 | Berlin Philharmonic | Vox/Turnabout
8212 | No. 8 | Swedish National | Unicorn/EMI/Electrola (or Stockholm Philharmonic?)

Wilhelm Furtwängler Still hot in the catalog
Furtwängler performances with the Vienna Philharmonic of Symphonies Nos. 3, 5, and 7 (on Seraphim), of No. 6 with the same orchestra (Turnabout), of Nos. 7 and 9 with the Berlin Philharmonic (Turnabout), and also of the famous Bayreuth performance of No. 9 in 1951 (Seraphim), the only symphonies included in the Olympic list and not legitimately available elsewhere are Nos. 1 and 8.

I have paid particular attention to these symphonies, as Olympic-produced and Everest-distributed, as a matter of objective reporting. Furtwängler died in 1954, which means that radio tapes would conform to the prevailing standards prior to that—more than likely several years prior. The Olympic version of No. 1 is poor in sound, that of No. 8 (which Mrs. Furtwängler identifies as a product of 1948) somewhat better, but by no means good. (As Swedish copyright protection lapses after twenty-five years, Symphony No. 8 could be considered to be in the public domain.) In further pursuit of the subject as a whole, I tried to get a statement of Everest's position. A series of long-distance calls to its chief officer Bernard Solomon in West Los Angeles produced nothing, though I called back twice at times specified as likely to be productive. The third of these calls was put through to Lee Palmer, who was identified by the Everest operator as “Everest’s a-&-r man.” When I asked him what he knew of Mrs. Furtwängler’s letter and its content, he responded: “I don’t know anything about that. I’m an engineer; I process tapes.”

Asked what he knew of Olympic, he referred me to the address for that supplier printed on Everest’s sleeves: 200 West 57th Street in New York City. Palmer concluded by saying: “Anyway, we’re not going to handle Olympic any more.” Whether that meant “from this time forward” or “including what we have distributed in the past” I did not quite make out.

As for “200 West 57th Street,” it is a building cozily close to Carnegie Hall, and it is tenanted by some very well known names in the media world. Olympic Records is not among them, nor does the name appear in the last two editions of the New York (Manhattan) telephone directory.

* * *

The fascinating “case” described above by Mr. Kolodin would doubtless take a Sherlock Holmes to solve—and perhaps even he would need help. The questions of literary copyright are profound enough in themselves, but those involving recordings plunge the investigator almost immediately into a maze within a labyrinth within a hall of mirrors. The ins and outs of performing contracts and licensing arrangements are particularly complicated on the international level, one of the reasons being that European contract practice with respect to radio broadcast (from which so many of our European recordings come) differs radically from American custom. Too, there are strange “who owns what” anomalies that have their origins in the musical traffic through, under, over, and around the Iron Curtain, with the result that two parties may very easily end up with perfectly legal “exclusive” rights to the same piece of goods. All this is, of course, vexing to the record buyer, who would like to know just what he is about to buy. Can anyone enlighten us further on this Olympic matter?

Editor
Rubinstein
TEN GREAT PIANO CONCERTOS
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Brahms
Rachmaninoff
Ust
Chopin
Mendelssohn
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CIRCLE NO. 40 ON READER SERVICE CARD
many of our modern performance practices. The soloists are all first-rate and in very good voice. Karajan has solved the problem of the different ranges of the two bass arias by using two soloists, and the Quoniam and Et in Spiritum sanctum are highlights of the recording. The only word for the choral work is spectacular, particularly in the faster choruses, although the very live ambience often blurs the counterpoint. The Berlin Philharmonic is used with reduced forces. The warmth of the cellos and basses used for the continuo would have been better balanced, however, had the organ been louder. As it is, the continuo section comes through as a mighty bass line punctuated by an occasional squeak. Apart from that, however, the recording is excellent. Karajan’s tempos are generally much closer to the Baroque originals than is usual (the Crucifixus is strong and unsentimental), and on the whole the set is much to be preferred to other performances in the same mold, such as Klemperer’s on Angel or Münchinger’s on London.

Johannes Somary’s approach to the Mass from a quite different point of view, aiming at reasonable accuracy in matters of eighteenth-century performance practice and a liturgical rather than a symphonic style. The results are very good as refreshing twentieth-century Baroque. For the full Baroque treatment (boy choristers, original instruments, greatly reduced orchestra), unbeatable competition is provided by the Harmoncourt version on Telefunken. I liked Somary’s version much better than Richter’s on Archive, however. Somary’s tempos are all superb (with the lamentable exception of the Crucifixus, where his emotions evidently get the better of his judgment), and his additions of ornaments and embellishments, though modest, enliven the music considerably. Helen Watts is by far the best of the soloists; the others are good but not distinguished in this recording. The balance between the instruments and singers is excellent, the organ and bass-strings continue clear and supporting. The choral parts are distinct, and the articulation of both voices and instruments fine. Needless to say, the soloists are the best. For those who do not wish to go any further in authenticity as Harmoncourt’s eighteenth-century instruments and meticulous Baroque style, this recording would be an excellent choice. The stereo version unfortunately contains some distortion at the ends of some sides (and strangely, not the longest sides either), but is otherwise rich and full and quite clear in the contrapuntal textures, with sufficient reverberance to be natural without clouding matters. The four-channel version, checked on test pressings at the last minute, offers a straightforward ambient-sound use of the rear channels with no gimmickry, which opens up the ensemble sound, and, interestingly, seems to be free of the end-of-side distortion.

A third new version of the Mass, just released on RCA Victrola (FVL2-5715), was reviewed in the June 1974 issue of Stereo Review when the identical recording appeared on the Musical Heritage Society label, in which form it is still available. The RCA set is less expensive since the entire Mass has been squeezed onto four sides instead of the customary six. In something of a borderline case of truth-in-marketing, RCA has seen (Continued on page 106)
Benjamin Britten’s

DEATH IN VENICE

Reviewed by Roger C. Dattner

The incidence of artistic coincidence has lately fallen to next to nothing with the accumulation of decades into centuries and the institution of international copyright laws. Yet, just before the mid-point of this twentieth century’s Seventies, we find two ranking senior artists. Scorpio-born just seven years apart, drawing their inspiration from Thomas Mann’s 1911 novella Death in Venice.

Luchino Visconti (b. 1906) completed his film version of that famous story in 1970 (reportedly it was of somewhat greater length than we were privileged to see in this country). In it he transformed Mann’s aging countryman of letters into a composer—by implication, Gustav Mahler, who died in 1911. Although Visconti retained the name Gustav von Aschenbach from the original, he underscored his historically untenable insinuation of identity by using as Leitmotiv throughout the film the Adagietto from Mahler’s Fifth Symphony.

Furthermore, he presumptively considered this music appropriate for the choreography of actor Dirk Bogarde’s twitching brows, eyelids, and even lashes in the opening sequences aboard a steamer bound for Venice, as Visconti’s deed, though widely admired for its graphic opulence and meticulous reconstruction of the period, trashed Mann at the same time it was sullying Mahler, turning Aschenbach into a dirty old man in pursuit of an even dirtier pubescent boy who flirted openly with his prey. So much for the psychological deluding (man of letters into a composer), the traitorous (though nonetheless self-defacing) man of letters into a composer—by implication, Gustav Mahler, who died in 1911. Although Visconti retained the name Gustav von Aschenbach from the original, he underscored his historically untenable insinuation of identity by using as Leitmotiv throughout the film the Adagietto from Mahler’s Fifth Symphony.

As a transformation of Mann’s narrative into a libretto with music, Death in Venice honors the original on a level far above Visconti’s burlesque, simplistically Freudian interpretation. But Britten’s opera, as a musical experience without the conjoined aid of a staged performance, finds Mann quite as elusive. Though the novella moves geographically from Munich to Venice, it remains essentially and in greater part an interior monologue to which the writer’s third-person-singular storytelling adds yet another dimension of distance. And therein resides its power, its fascination, and its defiance. How much Aschenbach imagines, for example, is left for the reader to determine. In Britten’s opera, the figure in the graveyard becomes, early on, a reality: so does the ghostly gondolier who takes Aschenbach to the Lido and a meeting (by suggestion, foreordained) with the boy Tadzio. Thus Aschenbach becomes in the libretto a soliloquist, and his nemesis (the painted old fop on shipboard, the hotel manager and barber, the leader of the players, even the voice of Dionysus, as well as that graveyard traveler and the old gondolier) facets of a single presence both Mephistophelean (looking forward nearly thirty years to Mann’s Doctor Faustus) and Lindorf-like (as if Aschenbach were Hoffmann). There are a few very small sung roles, but those of Tadzio, his family, and the boys on the beach are danced. We cannot, however, “see” choreography on disc.

Britten has composed Death in Venice in two acts, with seven consecutive scenes in the first (ending with Aschenbach’s unheard words to Tadzio, “I... love you”), ten in the second. His basic scheme is Wagnerian, although his Leitmotiv may be no more than harmonic changes from a major to a minor chord. The vocal lines, in particular Aschenbach’s, verge on Sprechstimme and are so notated in the score. The use of the orchestra is abstemious: vibratphone, xylophone, and high metal percussion for Tadzio; a Fafner-like tuba for the oncoming plague that takes Aschenbach’s life; and }
strings, winds, and timpani for Aschenbach himself, these changing in color and volume to indicate Venice.

The ballet sequences, one in each act, are choral dances that recall Britten’s Gloriana. The first, on the beach, is Apollonian, with James Bowman’s countertenor (much amplified) as the God of the Sun; the second is Dionysian and distorted when Tadzio is overpowered by Jaschiu and humiliated before his companions. There is parodic music for players who sing at the hotel, recalling the composer’s Soirées et Matinees Musicales, and there is hurly-burly for Venice and the hotel guests, yet even these are subdued. Most evocative is Britten’s water music—waves lapping the shores of the Lido or being cleft by gondolas (reminiscent of Peter Grimes or Billy Budd, with the accretion of years and the consequent growth of expressive subtlety)—and the Transfiguration postlude as the plague kills Aschenbach on the beach.

Through much of the opera we hear Peter Pears as the protagonist. He is ever a marvelous artist, but now vocally so eroded by the passage of time that his diction (like Elisabeth Schwarzkopf’s) deteriorates into vowel sounds so private they can easily fail to communicate in our English language if you have no libretto at hand. There is, oddly, little variety allotted to John Shirley-Quirk in his seven roles as threatener or tempter, though he negotiates an intensifying chromaticism nicely as the opera proceeds from Aschenbach’s diatonic state of self-containment and rationalized contemplation to his first admission of a passion foreign to his nature.

Death in Venice is a work, then, of the most refined technique by a composer altogether in control of his technical means. And yet one feels, on repeated listenings, that here is a composer creatively spent—indeed, overspent. Neither the splendor nor the decay of Venice grips us; likewise the birth and growth of Aschenbach’s obsessive passion is curiously cold and abstract—even though we are dealing with him here in the first person singular.

There can be no faulting of Bedford’s conducting (one wonders, nonetheless, how Solti might conduct this or that passage), nor of the congregational contributions of the English Opera Group and the English Chamber Orchestra. The Mutlings, however, yield a hollow acoustic, ever so slightly furred except when voices are close-miked (as Pears’ and Bowman’s are), and to the total advantage of neither. And London’s dynamic range is perhaps excessively wide. Yet another recording of Death in Venice is unlikely, so this is it. Love it or leave it, take it or reject it, be moved or be put off.


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Why spend $750 to $1200 dollars for an amplifier? The Great American Sound Company sells one with a full complement of series connected output for much less. In short AMPZILLA is here. In the September 1974 Popular Electronics, Hirsch-Houck Labs says “...solidly in the audio monster amplifier class...” Available with direct reading power meters in kit ($375) or fully assembled ($525). Also the same amp but no meters in kit ($340) and assembled ($475). Write us for complete specs or read Popular Electronics, September 1974.
ed length that its dramatic and structural premises do not really seem to warrant. Rochberg’s Second String Quartet, written in 1959-1961, predates his involvement with quotation. It is a massive serial piece which, like Schoenberg’s Second Quartet, eventually incorporates the human voice. The mere size of the work—it is a few minutes shorter than the Suderburg but much bulkier in sheer weight of notes—is extraordinary, and, in spite of its highly expressive character and an almost burning intensity throughout, it barely starts the weight of its own Angst. It is curious that in Schoenberg’s Second Quartet he bids an ironic farewell to traditional Romantic tonality, while Rochberg’s Second Quartet, in effect, does the same, via a his work, for traditional atonal or serialist Expressionism. The texts, by the way, are from the Duino Elegies of Rilke. They are sung in an uncredited translation; no texts are provided with the record, and the language is, by and large, impossible to grasp in the setting. This is a pity because some knowledge of Rilke’s attempt to reach affirmation through despair would give us a key to the emotional climate of this difficult work. Except for the problem of intelligibility—at least partly a function of the setting—Phyllis Bryn-Julson’s performance of the solo part is stunning, and both ensembles give knockout performances of difficult music.

George Crumb’s four sets of madrigals are scored for mezzo-soprano and percussion, flute, harp, and double-bass. As has been the case in Crumb’s work for many years, the texts are fragments of poetry by Federico Garcia Lorca, with an endless round of images of earth, sleep, night, recollection, shadow, and death. The first two sets were written in 1965 on a Koussevitzky Foundation commission; the second two sets were composed like the others of three madrigals each, were written in 1969 for Elizabeth Suderburg, who performs them here. Like all of Crumb’s music, the madrigals are set forth in a series of brief, evocative musical moments, often quiet and floating, occasional lyrically absorbing, fearfully rhythmic. The treatment of the voice, strikingly rendered here by Mrs. Suderburg, is sensitive and evocative beyond words. Nothing comes from anywhere or goes anywhere. The music, like much abstract art, just is. But the musical objects are surprisingly palpable and concrete, the music longing for infinity even as it is trapped in the real here and now. It is the sort of contradiction through which effective, endlessly evocative experiences can be made of very little.

The performances in both recordings are, as I’ve indicated, expert, and the recorded sound is very attractive.

Performance: Emphasizes virtuosity
Recording: Mostly excellent

**RECORDING OF SPECIAL MERIT**

Michel Chapuis’ integral recording of Bach’s organ works, a set that will eventually fill ten albums of two discs each, continues in its fourth volume with a selection of some of the composer’s largest-scale pieces for the instrument. The majority of the works here, such as the virtuosic D Major Prelude and Fugue, are fairly early in origin, but there are as well two major pieces from Bach’s later years, the aforementioned D Major Prelude and Fugue, whose second section is played in a quite breathtakingly virtuosic manner. Yet, for all of his skills, Chapuis belongs to the school of players that do not interest themselves very much in details of phrasing and articulation, with the result that contrapuntal clarity (and its side effect, rhythmic dissonance) is often glossed over.

The organ works can sound more architecturally conceived and less like undifferentiated masses of continuing streams of notes than they do in Chapuis’ recording. Helmut Walcha’s disc, for instance, which is excerpted from Archive’s eight-CD set, first volume devoted to Bach’s organ music, reveals greater attention to structure and often, as in that same D Major Prelude and Fugue, a more rhetorical manner of performance. To be sure, in 1970, when these pieces were recorded, Walcha was a bit more sober overall than when he first made his integral Bach set in the early Fifties. He cannot compete in flamboyance with Chapuis at this stage, but his performance has the advantages of absolute clarity and a feeling of strength achieved without recourse to mere speed and loud registration. (Who incidentally, archival glories to issue Walcha’s seven-disc Volume Two containing the chorale arrangements?) Sound (Continued on page 109)

**THE PHILADELPHIA SCHOOL**

Reviewed by Eric Salzman

Although it is not widely recognized as such, Philadelphia is an important center for new music in America. There is even what might be loosely termed a “Philadelphia school” of new music revolving around the University of Pennsylvania, the Theodore Presser Publishing Co., a couple of active new-music organizations, and several composers of note. The major figures to emerge from this “school” have been George Crumb, by now one of the relative handful of middle-generation “serious” composers in America with really wide repertoires—music to the second degree,” as it has been called.

Robert Suderburg is a younger and lesser-known colleague who has been particularly active as a performer. In 1966 he moved from Pennsylvania to the University of Washington in Seattle. This bit of history accounts for the fact that the Philadelphia String Quartet is now the quartet-in-residence at the University of Washington. That Suderburg is still very much involved in the music of the Philadelphia school is further documented by two recent Turnabout releases, one of them Crumb’s madrigals conducted by Suderburg, the other Rochberg’s Second String Quartet and Suderburg’s own string quartet, Chamber Music II.

The Suderburg quartet makes rather dramatic use of string resources, pitting different sorts of playing and ideas of playing one against the other. The results sound like a kind of odd hybrid between Béla Bartók and Elliott Carter. This is not necessarily bad; indeed, Chamber Music II is a brilliantly invented and strikingly managed piece of work suffering only from an extend-
wise, both Archive and Telefunken are good, although I found the latter slightly constricted in some side-end climaxes. Telefunken supplies excellent annotations plus the scores; they add appreciably to the value of the package.

I.K.

BACH: Partita No. 2, in D Minor, for Unaccompanied Violin (see Franck)


Performance: Very good
Recording: Very good

This trip may not be really necessary. Beethoven showed poor judgment in allowing Clementi to persuade him to adapt his Violin Concerto into a piano vehicle—and even poorer taste in some of the touches he allowed himself in executing the arrangement. However, as a French critic wrote of Beethoven's late quartets when they were introduced in Paris in the 1830's, "one must respect even the aberrations of great men," and it is quite unthinkable that we should be allowed to forget about this concoction now. It is of interest, perhaps, for the cadenzas, the first Beethoven wrote for any of his concertos, with an intriguing obbligato part for timpani in the one for the first movement. (He never wrote cadenzas for the violin version of this work, though he did go back and provide them for his first four piano concertos. and of course he included them when he composed the Emperor Concerto, whose final movement also has a cadenza with timpani.)

Barenboim does a beautiful job in both his roles, and the timpanist (James Blades?) invests his contribution with subtlety and wit. I'm not sure, however, that Peter Serkin's more expansive but less expensive version (RCA 1 S-33152) isn't easier to live with. The slow tempo he and Seiji Ozawa take for the first movement may seem lifeless after hearing Barenboim, but, on the other hand, Barenboim may seem too brushy and frisky in the cadenza after Serkin's serene purity. It might be said that Beethoven wrote a brush, frisky cadenza, which Serkin tries to adjust to the requirements of the movement proper.) Moreover, RCA's recording, though older, is slightly more transparent, and there is some more pointed playing by the New Philharmonia strings in the last movement. Actually, either version fills the bill more than adequately. Barenboim more spirited, and with a superior timpanist: Serkin/Ozawa more straight-faced, with slightly cleaner sound (not that the DG is really deficient) but a less inspired drummer.

R.F.

RECORDING OF SPECIAL MERIT

BEETHOVEN: Piano Concerto No. 5, in E-flat Major, Op. 73 ("Emperor"). Christoph Eschenbach (piano); Boston Symphony Orchestra, Seiji Ozawa cond. Deutsche Grammophon 2530 438 $7.98.

Performance: Strong
Recording: Attractive

One of the great contradictions in Beethoven's work and life is the conflict between the public and private aspects of his art. For a brief moment in the late eighteenth century, the split between a connoisseur's art and a public art seemed to be healed, but in the nineteenth century the old conflict was renewed with even greater force. Beethoven's later work shows this tension very clearly. At the same time that his deafness and personal development were forcing him more and more toward inner and highly original forms of expression, he attempted to create a parallel style, a popular expression of great strength and simplicity. The Pastoral Symphony and the Emperor Concerto—works that are strikingly alike, by the way—are perhaps the best examples of this.

The problem in performing the over-familiar Emperor Concerto is to keep its quality of open strength and simplicity without indulging in foolish heroics, and this is exactly the virtue of this performance. That a German record company would bring its leading pianist to Boston to work with a Japanese conductor may seem incongruous to some, but the combination has just the right freshness and breadth (I almost said "generality," but that word might be misunderstood) to revitalize this music. The resolution of a certain nervous, rhythmic energy and a deeply felt spiritual calm is hard to define with any precision, but it is there and it works. The recording also sounds good: clear, open, and acoustically attractive.

E.S.

RECORDING OF SPECIAL MERIT


Performance: Warmly romantic
Recording: First-rate

Back in 1942, the illustrious combination of Rubinstein, Heifetz, and Feuermann collaborated in a memorable recorded performance of the Brahms Op. 8 which is still listed in Schwann 2. This Rubinstein-Szeryng-Fournier effort is not one whit inferior to that classic recording, and, of course, their gorgeously romantic reading—wholly appropriate to the embarrassment of melodic riches in the music itself—profits immensely by truly superb sonorities. There are wonderful tonal body, ensemble presence, and satisfying room acoustics throughout all eight sides of this album, a great improvement over the not always happy results obtained in the Rubinstein-Guarnieri Quartet series.

But the real miracle of this album is the performance of the eighty-eight-year-old Rubinstein, whose playing still overflows with rhythmic alertness and vitality and with a warmth of phrasing that might bespeak the work of someone half his age. Szeryng and Fournier are no mere collaborators, either; but partners in the fullest sense of the word. Indeed, Fournier's cello speaks out with singular eloquence in the opening movement of Op. 8.

The more tautly disciplined music of the C Major and C Minor Trios makes for some interesting comparisons when one listens to the rival readings of Istomin, Szeryng and Rose in the excellent Columbia recording. In general, the younger group favors slightly faster tempos and tauter articulation in the fast movements, the scherzos of Op. 8 and Op. 87 being typical instances in point, and they do manage to achieve a more eerily spectral atmosphere in the scherzo of Op. 101, though here the
slightly drier recorded sound also may be a factor.

I'm not sure that I go along with the reasoning of RCA in throwing in the Schumann D Minor Trio, for this would be a nicely self-contained Brahms package, but the Schumann gets an altogether ravishing treatment here. The excellent Beaux Arts Trio recording for Philips is coupled with the two other less interesting Schumann trios, plus the G Minor Trio of Clara Schumann, but unless I were an all-out Schumann buff, I should be inclined, on a packaging basis, to opt for the RCA combination. As a Brahmsian, though, I would want both the RCA and the Columbia versions of the trio, as each has its own special satisfactions.

D.H.

**BRAGHMS: Variations on a Theme by Haydn, Op. 56a (see ELGAR)**

**DEBUSSY: String Quartet. RAVEL: String Quartet. Danish String Quartet. TELEFUNKEN SAT 22541 $6.98.**

**Performance: Rich Recording: Very good**

The tradition of the string quartet as a polyphonic medium has been almost universally respected until recent times. The Debussy quartet, with its qualities of inner growth and texture-as-melody, is almost a mutation in the evolution of chamber music. For all its obvious differences, the Ravel quartet reads sometimes even exceeding the score indications. But it works, particularly for Debussy, but one of Delius' most attractive music; they are, within their more intimate context, more gawky and expansive than the well-known orchestral miniatures, and their lyricism is of a warmer, more impassioned nature. Any one of these works should have been enough to endure Delius to every violinist, but it is only in the last two or three years that they have begun to attract serious attention beyond Britain; they could hardly have found more sympathetic interpreters, nor could Wilkomirska and Garvey have made a happier choice of repertoire for their first recording together.

Whether Wilkomirska has yet played any of these sonatas in public, I do not know; she cannot have lived with them long, and yet her feeling for the idiom—like her rapport with her new performing partner—is complete, assured, and irresistible. Perhaps, after all, this

**Recording of Special Merit**

**DELIS: Sonatas Nos. 1, 2, and 3 for Violin and Piano. Wanda Wilkomirska (violin); David Garvey (piano). CONNOISSEUR SOCIETY CSQ 2069 $6.98.**

**Performance: Glorious Recording: Excellent**

As Martin Bookspan reminds us in his annotation for this record, these are really the last three of four violin sonatas composed by Frederick Delius, who chose not to publish the first one. But I expect that that 1892 effort will turn up fairly soon, for anyone exposed to the three recorded here is going to be curious about it. They span the period 1905 to 1930, the First took nearly a decade to complete, the Second was the last of his works Delius was able to write down himself, and the Third was dictated to his amanuensis, Eric Fenby (who recorded the sonatas himself; on Delius' old piano and with violinist Ralph Holmes, for Unicorn in England). What all of them have in common is the rhapsodic pulse that informs all of Delius' most intimate context, more gawky and expansive than the well-known orchestral miniatures, and their lyricism is of a warmer, more impassioned nature. Any one of these works should have been enough to endure Delius to every violinist, but it is only in the last two or three years that they have begun to attract serious attention beyond Britain; they could hardly have found more sympathetic interpreters, nor could Wilkomirska and Garvey have made a happier choice of repertoire for their first recording together.

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**R E C O R D I N G  O F  S P E C I A L  M E R I T**


**Recording: Exalted Elgar, brisk Brahms Recording: Very good**

Both of these performances are so intriguing—so filled with the freshness and insight only the greatest of great conductors bring to their music-making—that, even though neither of them is my own first choice among current recordings of the respective work, the disc can hardly be put aside. Monteux's Brahms was always a special joy, and I've always regretted that he recorded only one of

**Performance: Exalted Elgar Recording: Excellent**

**FRANCK: Sonata in A Major for Violin and Piano. BACH: Partita No. 2, in D Minor, for Unaccompanied Violin (BWV 1008). Jascha Heifetz (violin); Artur Rubinstein (piano). SERAPHIM 60230 $3.49.**

**Performance: Individual Recording: Fair**

Heifetz and Rubinstein made this recording of the Franck Sonata in 1937; the 78-rpm originals enjoyed resurrection for a while as an early long-play disc (RCA LCT 1120). Hearing it anew reaffirms my admiration for the virtuosic manner of execution, but in my opinion this is not an entirely successful realization of the music. Heifetz's variations in a more sovereign technique dominate a partnership in which Rubinstein's part is unduly submissive—an imbalance at least partially explained by imperfect engineering balance and the cramped piano sound. (Heifetz departs from the original writing on at least two occasions, adding chords to reinforce his part in an expansive phrase, and contributing a grand flourish in the closing measures.) Though recorded even earlier (1935), the monumental Buch Partita suffers less from antiquated sound. The dramatically inflected, individually nuanced Heifetz interpretation has never been everyone's favorite view of Bach, but the virtuosity is awe-inspiring. The deceptively simple-sounding Gigue is nearly as breathtakingly executed as the monumental Chaconne, with its grand sweep, amazing boldness, and magical realization of "unplayable" chords.

G.J.

**GESUALDO: Responsoria et alia ad Officium Sabbati Sancti. Prager Madrigalisten, Miroslav Venhoda cond. TELEFUNKEN SAWT 9613-A $6.98.**

**Performance: Good Recording: Excellent**

(Suspended on page 112)
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Hearing is Believing

CARLO GESUALDO

Prince of Venosa, is best known as a composer for his six books of madrigals, but he also wrote two volumes of Cantiones Sacrae and a series of responses and other chants marking Holy Saturday. The latter work consists of responses to the nine lessons of Matins of Holy Saturday in which the texts, drawn from the Old Testament, describe the desolation of the martyred prophet Jesus. Gesualdo's collection also includes settings of the Misere and the Benedictus, standard parts of the Liturgy of the canonical hours. The nine Matins responses are on the whole gloomy andintroverted in sound, resembling in many ways the anguish of Gesualdo's chromatic madrigals (though not quite as garishly manneristic). The Misere and Benedictus, on the other hand, are written in a deliberately older, orthodox manner, in which the predominant plainchant line is filled in with simple harmonies. The mixed-choir Prague Madrigal Singers, numbering twenty-one, perform with commendable style and accuracy, though the pacing of the Matins responses gives the impression of a more measured than flexible approach. The Telefunken reproduction is very good, but the identical performances are available on the less expensive Musical Heritage Society MHS 1786.

The Odyssey collection of Gesualdo madrigals, directed by Robert Craft and involving a crack vocal ensemble that includes no less than Marilyn Horne among the participants, is derived from Columbia MS 6048 and KS 6318, dating from over twelve years ago. Included are twelve of Gesualdo's more effective and famous madrigals in addition to two sacred pieces. All are performed in an astonishingly precise fashion, in which every note is firmly in place pitch-wise, and in which every voice is immaculately balanced with the other. My own reaction to these interpretations is that the approach is too clinical and lacking in affect, but I know that many admire these renditions for their extraordinary accuracy. Those who did not hear the original discs from which this one is extracted should not miss the opportunity to hear these performances now, although there are other recordings with greater warmth and expressivity available, including the complete seven-disc album of Gesualdo's madrigals on Telefunken 25086. The Odyssey reissue wisely includes texts and translations (the Telefunken complete madrigals do not, an incredible omission), and the reproduction, though a bit varied between sources, remains good.

JANÁČEK: Glagolitic Mass. Teresa Kubiak (soprano); Anne Collins (alto); Robert Tear (tenor); Wolfgang Schöne (bass); John Birch (organ); Brighton Festival Chorus; Royal Philharmonic Orchestra; Rudolf Kempe cond. LONDON OS 26338 $6.98.

Performance: Excellent


Performance: Excellent

Although I am delighted to see a whole record devoted to Koechlin, I cannot help feeling that this particular offering is primarily of interest to saxophonists. The fifteen etudes of this composer's first instrumental work, in 1943 (when he was seventy-five) effectively demonstrate virtually every note and characteristic within its reach, and in this context the material is surprisingly varied—but it still adds up to a muchness in terms of listening. One need not be a student of the saxophone to acknowledge that Brodie does as much for these pieces as they do for the instrument: there could hardly be a finer model for didactic purposes, and Kubalek is an excellent partner. The recording is, for me, uncomfortably close, with the noise of the keys even more obtrusive than the frequent reminder that even virtuosos have to breathe. The annotation, whose author gets more of a blurb than either of the performers, omits any reference to when the études were composed (I looked that information and the opus number up myself), but it does inform us that it was as recently as 1970 that the distinguished French saxophonist Jean-Marie Londeix was able to effect their publication.

M. Londeix has recently recorded Koechlin's 1937 Epitaphe de Jean Harlow for EMI, which gives one hope that the Seven Stars Sympathy Band may really be about to materialize on disc. In the meantime, more certainly, Arigo is reissuing Dorati's superb recording of Les Bandur-Drag, formerly on Angel, and this would seem to be the best way for the non-saxophonist to get acquainted with this fascinating composer.

R.F.

Performance: Fiercely ecstatic
Recording: Uneven, but mostly very effective

The "Special Merit" designation applies here to the two final movements alone, for Janet Baker's reading of a "middle way," but Bernstein's version of Mahler's "Resurrection" is a truly unforgettable solo performance, is a truly unique musical experience.

Between 1686 and 1725 Marin Marais (1656-1728) published five books of pieces—over 550 works—for one, two, and three violins. His forty works-for one, two, and three violins. His fourth Suites, respectively, all from the composer's first book of viol pieces, published in 1686 and dedicated to Lully, who

held him in considerable esteem: Louis XIV, too, admired Marais, who, although he did compose other works, including a Te Deum and several operas, was most famous for his gamba compositions and, to judge from contemporary reports, for the refinement, tastefulness, serenity, and expressivity of his instrumental playing. In what the jacket announces as the first of five discs to be devoted to Marais' solo viol pieces, we have here selections from the First Suite (eight of the twenty-seven movements), seven of the eight movements of the Third Suite, a chaconne and a Rondeau from the Second and Fourth Suites, respectively, all from the composer's first book of viol pieces, published in 1686 and dedicated to Lully, who

(Continued on page 116)
Although Leopold Stokowski has favored us with some of the finest contributions made by anyone to the treasury of recorded music, there are times when he leaves me disconcerted. I have never felt that the Pathétique was one of Stokowski’s better readings, either in concert performances or in his earlier recordings with the All-American Youth Orchestra (Columbia 78’s) and the Hollywood Bowl Orchestra (RCA Victor). And the wayward — nay, erratic — qualities of his tempos and phrasing are, it seems to me, even more exaggerated in his latest recording with the London Symphony, the 5/4 movement being the most painful instance in point. RCA’s recorded sound is full-bodied and clear, which seems only to accentuate the shortcomings of the interpretation.

When it comes to a relatively free treatment of Tchaikovsky, or of almost any other composer for that matter, Wilhelm Furtwängler could give lessons to anybody. And his 1938 recording of the Pathétique, just reissued on Seraphim, is a prime example of his way with music. As a reading, it’s not my stem of beer, verging as it does on the Teutonic-sentimental and occasionally appraising hysteria. But, as in all of his often controversial readings of the major classics, Furtwängler never becomes tasteless, let alone vulgar, and his control of an orchestra as revealed in his better recordings remains something of a miracle (as, indeed, does Stokowski’s). The sound of the Furtwängler Pathétique seems somewhat constricted, as it did in the 1960 issue in Angel’s Great Recordings of the Century series; and a spot comparison leads me to believe that the Seraphim edition was mastered from the same basic tape as the Angel one. That is too bad, for a new tape produced from the original 78’s with today’s vastly improved techniques would, I am sure, have been decisively better and would probably have cleaned up a few of the rougher tape splices between sides, as in the transition from the introduction to the main body of the first movement. The basic sound was excellent at the time of original release and presumably could be not only preserved but improved today. The reading is thus a bit on the square side, particularly when compared with Karajan’s Deutsche Grammophon (not Angel) recording, in which, like Furtwängler in peak form, the conductor shows just how to lay on a bit of stress here, a slight bit of rubato there, without ever losing the music’s basic pulse.

A note on the four-channel sound: As in most of RCA’s previous CD-4 productions, the basic sound on the RCA Quadradisc pressings of the Ormandy and Stokowski performances serves chiefly to expand the acoustic environment for the listener. That is well done and tastefully in these recordings, and the character of the frontal sound is almost the same as that heard in the stereo except for some compression of dynamic range (this to some extent psychologically compensated for by the quadraphonic format’s contribution to the sonic ambiance). I noted with interest that the grooves in the straight stereo pressings extend considerably farther toward the center of the discs than is the case with the Quadradiscs, which explains the need for dynamic compression in the latter. Possibly the diameter limitation imposed by the CD-4 disc-cutting technique is a function of having to retain the 30-kHz carrier-signal information necessary to activate the rear channels, information that would be lost if the cutter were too far toward the center of the disc.


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importance of Marais as an instrumental composer for the violin, and since there have not to my knowledge been any recordings of any of the contents of the first book prior to this, the disc should be of considerable interest to Baroque enthusiasts.

John Hsu, adroitly accompanied by Louis Bagger and Judith Davidoff, plays this music with technical agility and a surprisingly robust style. It is accomplished playing, but it is also not very varied dynamically, not very refined in expression, and not tonally "angelic" (a description of Marais' own playing). A far different and more subtle style of playing, more appropriate to both the music and the French style of this period, may be heard in Nikolaus Harnoncourt's exquisite rendition on Musical Heritage Society MHS 964 of the Fourth Suite from Marais' Book III. I suggest listening to Harnoncourt first. I.K.

RECORDING OF SPECIAL MERIT

Performance: Incredibly beautiful
Recording: Good

Michael Rabin, whose death two years ago at the age of thirty-five was a great loss to music, made two extraordinary recordings of the big Paganini Concerto; the first, with Lovro von Matacic, appeared on Angel when Rabin was only eighteen, and this even more stunning recording with Goossens was originally issued as Capitol SP-8534 in 1961. It is astounding that it could have been deleted even temporarily, for it is one of the most incredibly beautiful violin recordings ever made, no less remarkable for the sustained beauty of Rabin's tone throughout the tricky piece than for the ease with which he negotiates the digital athletics involved. The Wieniawski side is hardly less exceptional; there is no current version of it that surpasses this one in appeal, and none that comes very close in the case of the Paganini. Goossens' accompaniments (that is what they are, after all, in these works) are impecable, and the sound carries its age handsomely. R.F.

RAVEL: String Quartet (see DEBUSSY)

ROSSINI: Stabat Mater. Isabella Aidinian (soprano); Goar Galuchian (mezzo-soprano); Michail Dovemien (tenor); Migran Erkat (bass); State Academic Choir of Armenia; Studio Orchestra of the State Cinema, Oganes Chekijian cond. WESTMINSTER WGS-8266 $4.98.

Performance: Unpolished
Recording: Fair

Neither of these releases is acceptable. The Westminster issue (of Soviet-Armenian origin) offers a good chorus, two competent male soloists, and two well-intentioned ladies who are not quite on a professional level. The conductor cannot blend these uneven ingredients; the results lack refinement and cohesion.

The Olympic disc is a different matter. Here we have four fine vocalists in a well-meshed ensemble operating under a conductor who knows his business. The four singers, in fact, were all artists of the front rank in Vienna around 1950, when so many important recordings originated in the dawn of the long-play era. The problem is that this recording also dates from that period (and will be recognized by veteran collectors as the erstwhile Oceanic 24), and it is betrayed by cramped orchestral sound, distorted climaxes, and artificially boosted resonance. Olympic's liner notes, on the other hand, talk of "ultimate fidelity in quadraphonic (!) reproduction." Is the "truth in packaging" principle not applicable in the record industry?

G.J.

D. SCARLATTI: Sonatas (see Collections—Oscar Ghiglia)

RECORDING OF SPECIAL MERIT

Performance: Sublime
Recording: Adequate

The C Minor Sonata, a more austere, less singing work than its two broadly lyrical companions of Schubert's last year (the posts-

(Continued on page 119)

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To learn more about the MX-12—and the MX-10 (10" woofer), the MX-15 (15" woofer), and MX turntables, stereo and quad receivers—see your MX dealer. For his name, write: MX High Fidelity Component Series, The Magnavox Company, 1700 Magnavox Way, Fort Wayne, Indiana 46804.

Specifications:

- Woofers: 12" high-compliance (long-throw voice coil)
- Mid-range: 2" hemispherical dome
- Tweeters: 2" phenolic ring cone
- Impedance: 8 ohms
- Frequency response: 25 Hz to 20 kHz
- System resonance: 45 Hz
- Front-mounted controls under removable, acoustically transparent foam grille:
  - Mid-range level: +3 dB, nominal, -3 dB
  - Tweeter level: +3 dB, nominal, -3 dB
- Crossover freqs.: 1500 Hz, 4500 Hz
- Cabinet finish: Oiled walnut veneer
- Dimensions: 25½" x 15¼" x 13¼"
- Weight: 40 lbs. (approx.)
- Recommended minimum amplifier input power: 10 watts FTC
- Maximum power handling: 75 watts RMS*

*RMS continuous power at 20 Hz, measured by applying the voltage necessary to produce rated watts into an 8 ohm load. At standard room conditions, the unit would be capable of sustained operation at test voltage. MX engineers consider this rating to be very conservative; this is a much more stringent continuous power test than would be encountered in musical programs.

We'll be heard from.

CIRCLE NO. 27 ON READER SERVICE CARD
Most opera lovers will react, I suspect, as I did on first reading the cast list for Angel's brand-new "Aida: Domingo as Radames-fine, no better to be heard or seen today; Cossotto as Amneris—fine, a veteran in the role and best of today's Italian mezzos; Cappuccilli as Amonasro—fine, not the most sumptuous or imposing of baritones, but a splendid, intelligent performer; Ghiaurov as Ramfis—fine, giving Ramfis his due for a change; Caballe as Aida—???

Among my most treasured and indelible operatic memories is the evening in the spring of 1965 when I went to Carnegie Hall to hear the American Opera Society's revival of Lucrezia Borgia starring Marilyn Horne. I had failed to note that the performance was to start at 8 rather than 8:30, and so arrived a good twenty minutes late. Nothing to be done about that now, so I was taking a leisurely pace up the stairs to the Family Circle when suddenly I heard something that catapulted me the rest of the way two steps at once. What the hell was going on here?

I got to the top of the stairs just in time to hear the house come down around the ears of a substantially built singer who most certainly was not Marilyn Horne. She was, of course, Montserrat Caballe, a singer of whom hardly a soul in New York had ever heard. Her triumph that night may have been the most immediately decisive of any I have heard. She entered the scene from the stage right in the guise of Octavia and immediately began to spin an enchanting vocal line to the accompaniment of cymbals and timpani.

The performance is marvelously paced by Riccardo Muti, and the sound of the New Philharmonia Orchestra is very fine. You will never hear the ballet music played like this before. Cappuccilli's Amonasro—strong, traditional Italianate Amneris, but a splendidly intelligent performer—may have been a disappointment, and it left me wondering whether Caballe and Verdi were compatible. Caballe is an extraordinarily creative singer, at her best in music that leaves her free to do more in spinning a melodic line than is obviously implicit in the notes. Verdi was an extraordinarily creative and productive composer, and his melodies tend to spell out what Bellini and Donizetti left to the discretion of singers of Caballe's endowment, accomplishment, and disposition.

There is a world of difference between Aida and Violetta, and Aida offers Caballe's imaginative impulses greater scope, but still, while listening to this recording I found myself noting that the results are more satisfactory where Caballe can bend Verdi to her artistic will than where score and conductor offer no alternative to deference. There are, fortunately, many pages of Aida cut to Caballe's vocal and temperamental measure. The plaintive and pleading episodes of the confrontation with Amneris are among them. Almost all of Act III is mobile and heart-rending "O patria mia." The final scene, too, gives her an opportunity to mold a languishing long line as only she, today, can do. But, in the end, Aida is not to be numbered among her best parts—her Donizetti and Bellini heroines—and it is not simply a matter of temperament. The voice itself is not right, although it is right enough for certain passages. It is too soft, too velvety, too delicate. It lacks the amplitude and cutting edge required for thrilling domination of the big concerted numbers. Where the top notes can be floated in that special way of hers, all is in order. But where forcefulness and passionate outbursts are demanded, the tone becomes hard and shrill.

Her Aida is a considerable accomplishment, but it is not to the voice or the manner born. In casting Cossotto as Amneris, the producers probably anticipated—correctly, as it turns out—an effective contrast of vocal timbre and character. For those of us brought up on the vocally sumptuous Amneris voices of Castagna, Branzell, Stignani, and Simionato, the tone is hard and a bit dry, sometimes even coarse. Amneris, to be sure, can be viewed as a reasonably tough lady, and Cossotto's tone for her as not really out of character. This is an assured, accomplished, traditional Italianate Amneris, complete with resounding Italianate chest tones not to everyone's taste—but very much to mine!

Cappuccilli's Amonasro is, for me (after Domingo's Radames), the gem performance of this recording: intelligent, splendidly characterized, and—this cannot be said of his associates—immaculate in its Italian enunciation and articulation. Ghiaurov's Ramfis is as strong as I expected, but it is marred by slovenly Italian. And what is one to say of Domingo's Radames? I'll say it in one word, and be done with it: glorious. I can only regret, having savored his incredible pianissimo high B-flat at the close of the opera, that he had not produced its twin brother for the ending of "Celeste Aida."

The performance is marvelously paced by Riccardo Muti, and the sound of the New Philharmonia Orchestra is very fine. You will never hear the ballet music played like this before. The oratorio trumpery in the triumphal march. The orchestral splendor is perhaps sometimes too much of a good thing, tending as it does to overpower chorus and soloists in the concerted numbers—there are too many passages where all is engulfed in a crashing surf of cymbals and timpani. (P.S. for those with absolute pitch: on the discs I played the pitch is consistently too high, sometimes almost a full semitone, so that Domingo's B-flats, for example, come through as B's.)

VERDI: Aida. Montserrat Caballe (soprano), Aida; Placido Domingo (tenor), Radames; Fiorenza Cossotto (mezzo-soprano), Amneris; Piero Cappuccilli (baritone), Amonasro; Nicolai Ghiaurov (bass), Ramfis; Luigi Roni (bass), King of Egypt; Nicola Mauti (tenor), Messenger; Ester Casas (soprano), Priestess. New Philharmonia Orchestra and Chorus of the Royal Opera House, Covent Garden, Riccardo Muti cond. ANGEL SCLX 3815 three discs $21.98.
January 1975


Recording: Superbly controlled

A-1

R. Strauss: Also Sprach Zarathustra, Op. 30; Waltz, from Schlagers, Op. 70. Vienna

W.Ellen Audio 9200 Hill Place N.W. Washington, D.C. 20011

CIRCLE NO. 2 ON READER SERVICE CARD

Recording: Excellent


Performance: Brilliant, frigid

Recording: Bright, hard

The Schumann piano repertoire—at least those works that fall between Op. 2 and Op. 18—has been among the most frequently recorded keyboard music, but until a few years ago it had a singular lack of interpretive success by the generation of pianists succeeding such renowned veterans as Alfred Cortot, Harold Bauer, Ossip Gabrilowitsch, and Myra Hess. The past decade has seen a remarkable change for the better, however, for Anton Kuerti, Murray Perahia, and Jerome Rose have recorded Schumann readings of genuine distinction. And we must not pass over such major artists of the older generation as Claudio Arrau, Jakob Gimpel, and Sviatoslav Richter, whose recent Schumann recordings are excellent additions to the catalog.

To this distinguished company, I am prepared to add Peter Frankl, who has recorded extensively for Vox, Turnabout. He has, in this first volume of a projected series of Vox Boxes covering the complete Schumann piano repertoire, come through with interpretations truly notable for their cultivated pianism and communicative warmth. As in the finest readings of the Romantic keyboard repertoire, Frankl establishes just the right balance of ardor and delicacy without in any way becoming fussy or pedantic in the process. The reading of Faschingschwank aus Wien is sheer joy from start to finish, pianistically flawless and brimming with the ardor, humor, and reflective characteristic of Schumann at his best.

The thrice-familiar Arabeske becomes in Frankl's hands the priceless little gem it truly is.

The special prize in this Vox Box is a long-needed integral version of the Album für die Jugend, a half-dozen of whose forty-three numbers have for generations been staples of the beginner's repertoire. I find the pieces in Book I (Nos. 1-18) the most spontaneously inspired of the series, but it is good to have all of them at last on disc in a performance that captures their charm, wit, and naiveté without at any time being condescending. The other Frankl readings here are never less than good, and the piano recording is rich in tone and ideal in balance between registers.

Given the enormous price differential between the Frankl Vox Box and Volume II of Karl Engel's comprehensive Schumann survey for Telefunken, I wish I could lavish comparable praise on the latter. But direct comparison with Frankl in overlapping repertoire—the Arabeske, Blumenstück, and the Faschingschwank aus Wien—found me becoming either sleepy or irritated with Engel. He tends to overemphasize the sharply contrasted manic and reflective aspects of Schumann's musical rhetoric, and after a while in the Fantasia and the Fasch...schwank) his playing becomes just plain tiresome. He conveys little humor or genuine tenderness, though in the quieter parts of Kinderzonen and the Op. 12 Fantasiestücke he does bring to the music a lovey airy, transparent quality, most effective in its own way for Schumann, but really ideal for Mozart. The recording, done by Valois in France, offers a bright and very clean piano sound, a little hard in the upper-middle register.

D.H.

Schumann: Trio No. 1, in D Major, Op. 63 (see BRAHMS)

Shostakovich: Symphony No. 8, in C Minor, Op. 65 (see Best of the Month, page 75)
Philharmonic Orchestra, Richard Strauss cond. OLYMPIC 8111 $4.98.

Performance: Composer's own
Recording: Primitive

The new Philips entry in the Zaratustra sweepsakes is right up there with the best, chiefly by virtue of Haitink's beautifully controlled reading, with its exceptionally detailed inner textures (especially in the "Schlagobers" and "Night Song" episodes), and the outstanding work of the Philips engineering staff, which has caught with exceptional vividness the acoustic ambiance of the Concertgebouw hall in Amsterdam. The organ sound at the opening is quite the most imposing I have yet heard, and in the entire work, the recording falls midway between the lyrical expansiveness of Karajan's recent version and the taut splashiness of Mehta's. I suspect anybody listening for all the notes, vertical and horizontal, in Strauss' brilliant tone poem will find more of them in this Philips recording than any other issued thus far.

The documentation of Richard Strauss' own reading issued on the Olympic label presumably stems from a radio broadcast of World War II vintage, or slightly earlier, to which, I would guess, a good deal of reverberation has been added. The resulting musical textures are muddied, the orchestral sound dim and distant, the pitch occasionally unstable, but at least we get some idea of the composer's own dynamics and tempos in the work. Strauss does not gloss over the rather banal "Dance Song" episode, with its saccharine waltz for solo violin, but instead makes the most of its lyrical-expressive content. The waltz from the 1922 Schlagobers ballet which fills out the Olympic disc is of negligible musical interest, but the sound is marginally superior to that of the Zaratustra. D.H.

WIENIAWSKI: Violin Concerto No. 2, in D Minor, Op. 22 (see PAGANINI)

COLLECTIONS

RECORDING OF SPECIAL MERIT


Performance: Brilliant Baroque
Recording: Very good

Oh, these protégés of Segovia! In this country we have Christopher Parkening astounding audiences with the purity of his tone and the precision of his playing, while in Italy there is Oscar Ghiglia. Ghiglia, born and raised in the seaport village of Livorno, was his own teacher at first, but at the age of fourteen he went to study at the Santa Cecilia Academy in Rome, and at nineteen became a pupil of the inimitable Segovia whom he joined again in 1964 at the University of California at Berkeley. Segovia called this pupil "one of the most meritorious and promising" guitarists in the world, and he, like Parkening, has long since lived up to his promise. This is his fourth recording for Angel, and it is given over entirely to Baroque music—much of it to sonatas by Scarlatti in Segovia's own transcriptions. The four heard on the record are brief, elegantly carved works that take on deeply sculpted shape under the ministrations of Ghiglia's strict fingers. Three works by two Couperins, three by Frescobaldi, and a sampling of others are included in the generous program, all mellow and graceful miniatures which emerge as only a mite too mellow on the guitar—one longs at moments for that steely, incisive harpsichordal clang—but never fail to shimmer attracively. In addition, there are two pieces by a sixteenth-century master of the lute named Francesco da Milano: an ingratiating ricercare and an extended tour de force called La Canzon Delli Uccelli (The Song of the Birds) in which Ghiglia is really challenged to show his stuff. Indeed, this entire disc is an incredible display of disciplined virtuosity.

MOTHER MALLARD'S PORTABLE MASTERPIECE CO. Borden: Easter. Drews: Ceres Motion; Train. Steve Drews & Linda Fisher (synthesizers); David Borden (synthesizers and electric piano). EARTHQUAKE EQ 0001 $5.00 (available from Earthquake Recording Co., 1191 East Shore Drive, Ithaca, N.Y. 14850).

Performance: Live electronic
Recording: Excellent

Mother Mallard's Portable Masterpiece Co. (there's everything in that name but the American flag) is a live-performance synthesizer ensemble that synthesizes the tendencies of "minimal," electronic, and Eastern-influenced new-music toward a cool, pop character. This group, operating out of Ithaca, New York, has worked almost entirely outside the World of Music or New-Music circles; nevertheless they have had a considerable amount of success on the college circuit, and, in New York City, at the Free Music Store. This is their first recording on their own label. It will be interesting to see how success fully they can continue to use alternative means of getting their music through in a day when "underground" and "alternative" culture have all but ceased to exist.

The basic approach is rhythmic-hypnotic, a combination of a freely felt live-performance style and a tight, repetitious, high-powered pulse framework. Many listeners will be reminded of the Terry Riley albums on Columbia a few years ago, but Mother Mallard & Co. are more tuned to the old eternal vibes. David Borden's piece celebrates a rhythmic Easter, while Steve Drews' two pieces are elaborations of sustained sounds in long, overlapping pulses. Nothing happens, of course: this is music of stasis, of tuned-in energy pulses. The recording is very well made. The spontaneity and power of the whole group's live performances is missing, but, in compensation, their live-electronic sounds, uncomplex and not strong on nuance, record very well indeed. E.S.

ANDRÈS SEGOVIA: My Favorite Spanish Encorés (see Best of the Month, page 76)

SWINGLE II: Madrigals (see Best of the Month, page 77)

RECORDING OF SPECIAL MERIT


Performance: Exciting
Recording: Very good

The Russian soprano Galina Vishnevskaya joined the Bolshoi Theatre in 1952 and began recording immediately thereafter. To the Western world, she is probably the most famous of the better-known baritone; unidentifed vocalist today, though some of her more recent recordings show signs of the inevitable vocal decline after a career of more than twenty years. It is a pleasure, therefore, to report that this modest-seeming, carefully produced, and ineptly annotated disc captures this exciting artist in her prime.

Vishnevskaya's singing may not always be a model for flawless tone, but it is always intelligent, emotionally committed, and dramatically alive. Her Aida and Butterfly arias, delivered in idiomatic Italian, not only are vividly expressive through dynamic and coloristic contrasts, but also display welcome touches of individuality. The War and Peace excerpts, neatly sung but much too brief, come from a complete recording that we may now enjoy in its entirety, since Columbia acquired American rights and has just released it. Perhaps the high point of this collection is the Final Scene from Eugene Onegin. This version, antedating the complete recording (Melodiya/Angel 4104) by several years, captures Vishnevskaya in altogether brilliant form opposite the sonorous and passionate Onegin of Georg Otts, the Bolshoi's Estonian star baritone.

Orchestra and conductors, though unidentified, are very good. So is the recorded sound, though my copy had a processing defect in the "Ritorna vincitor" band. I recommend this disc very highly. G.J.
Introducing the Staff...
Since readers from time to time understandably display a natural human curiosity about the backgrounds of the writers and editors who bend their ears each month in these pages, we will be offering, in issues to come, a series of capsule biographies and autobiographies designed to satisfy that expressed need and at the same time to circumvent some of the hazards of mere speculation. —Ed.

Associate Technical Editor
Ralph Hodges

Under the heading Hodges, R. W., the oracle of the 1961 Kingswood High School Black and Crimson wrote this prophecy: "Ralph decided to combine his two chief interests in life: sports cars and stereo. After years of research he perfected his Woofermobile and entered it in the Grand Prix. But poor Ralph went into a four-wheel drive with a feed-back rumble on the far turn, and lost control." Therefore Ralph found himself at an interview in the offices of Stereo Review. The monster had found its lair.

In his other life, Ralph lives with his family in a typical high-density, low-ceilinged rabbit warren on Manhattan's Upper West Side. There, in a small room crammed with speakers, electronic components, and three turntables all going at the same time, Ralph maintains a low profile, trying to keep the neighbors from finding out who is making that terrible racket at 1:30 in the morning. His success in his other life can be attributed to a few special qualities. He considers his greatest single asset to be his inherent shyness; it has prevented him from making a fool of himself more than once. His greatest double asset is the good fortune of having a wife in Veronica and a two-year-old charmer in their daughter Justine. Veronica feels that there is rather more to life than hi-fi, but she has been able to take the monster in her stride. Justine will grow up to think that every home hi-fi set includes what Daddy did. Ralph is still hard at work on doing what he can to perfect audio reproduction. He has greedily absorbed and ruthlessly discarded information gleaned from Japan to Singapore to London. Annual jaunts to far-flung audio shows and faithful visits to their spreading exhibition booths prove Ralph's single-mindedness. Confronted by railrokers, he confidently responds with a quick and knowing smile, and sometimes even a technical lecture for the incautious. Fortunately, Stereo Review has been able to make good use of his editorial and writing skills, his audio expertise, and his unflagging search for the ultimate, to soak up most of that boundless audio energy. His wife is grateful. Veronica Hodges


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H. I certify that the statements made by me above are correct and complete.

WILLIAM J. PHILLIPS, Assistant Treasurer 12.
MANY readers have asked me, “How close to a loudspeaker is it safe to store my tapes?” or, “If my tape deck is only a few inches from my receiver, will the magnetic field from its power transformer erase or otherwise affect my recordings?”

Accidental erasure, especially of the high frequencies, is something to worry about. I once ruined a $35 test tape by using a screwdriver I didn’t know was magnetized for some head adjustments, and a friend once tearfully played for me a master tape on which his five-year-old had momentarily placed a magnet from the kitchen memo board, “to see if it would stick.” The magnet didn’t, but the once-around blip did.

To assess the potential dangers, I consulted several experts and found they agreed that most fears about accidental damage from magnetic fields—generated by radar, house wiring, home appliances, power transformers, and even loudspeakers—are exaggerated. Prudence, not paranoia, is indicated.

The reasons are two formidable-sounding but relatively straightforward factors: “tape coercivity” and “the inverse square law.” Coercivity is simply the index of the amount of magnetic energy necessary to erase a tape and is measured in oersteds (Oe). Tapes generally have a coercivity in the 280- to 450-Oe range, but this value is a kind of an average (some oxide particles require more field, some less, for erase). The consensus among the experts was: a good rule for general tape safety is to keep the absolute peak level of stray fields to less than 10 percent of the tape coercivity. For ferric-oxide tapes, this amounts to 25 to 30 Oe, and for chromium-dioxide tapes, 45 Oe. One gentleman reported measuring a magnetic field of only 10 Oe at the case of an electric drill, so it surely would be safe to use in the vicinity of most tapes. (In fact, home-appliance motors aren’t that different in principle from those used in tape decks.) However, for really critical tapes, it was suggested that external fields should be kept below about 10 or 15 Oe, respectively, for iron and chrome tapes, since high frequencies tend to be more easily erased.

The other factor is a function of distance. Even a bulk tape eraser that may generate a powerful 1,000-Oe field measured at a distance of ½ inch measures only one fourth that field at one inch, and one sixteenth at two inches. That’s the effect of the inverse square law, and it holds, generally, for magnetic recorders. Thus, even a few inches of separation from potentially damaging fields—magnetic latches on cabinets for example—may prevent signal damage.

You can measure steady-state or “permanent” fields (around a speaker cabinet or from magnetized tape heads, guides, and capstans) with an inexpensive ($6.80) magnetometer from R. B. Annis, 1101 N. Delaware St., Indianapolis, Ind. 46202. Multiply your readings by ten or even a bit more on recorder parts that touch the tape directly. You’ll find that speakers with the magnetic “leakage” field varies from model to model and, of course, the point on the cabinet at which it is measured.

For a.c. fields, like those near a power transformer, the cost of a suitable measuring instrument is prohibitive ($200 to $400). However, there is a simple practical test you can make. Activate the recording mode on your machine—with no input signal—and meanwhile playing back a blank tape through the monitor head. (If you don’t have a three-head machine, just put it in playback.) Turn up your record, playback, bass, and volume controls so that you can hear plenty of noise from the speakers. Then physically move your receiver or amplifier—or deck, if more convenient—in all planes, closer and farther from each other. If there’s either an increase or a decrease in audibility, your recorder is within a measurable a.c. field. At a distance where no manipulation causes any change in the hum, you can rest easy.
The fire started on the first floor...

...worked its way to the second floor where my Marantz 2270 was, and finally engulfed the third floor. The floors collapsed and fell into the basement where the Marantz remained buried in debris and water until March when the wrecking company came.

While the men were lifting the debris into trucks I noticed a piece of equipment I thought could be the Marantz. I asked the man to drop the load, and the receiver fell 20 feet to the ground.

Out of sheer curiosity, I brought the damaged receiver up to my apartment and after attaching a new line cord to it, I plugged it in. All the blue lights turned on. I connected a headphone and the FM played perfectly. I then tested it with my tape deck, and finally the turntable and speakers. They all played perfectly, too.

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