Speaker Performance

The Quest for the Ultimate - Two Experts Take Contrary Views

Laboratory/Listening Reports: New Speakers from
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PIONEER
We bring it back alive.

THINKING ON OUR FEET.

Instead of skinny screw-on plastic legs, Pioneer uses large shock-mounted rubber feet that not only support the weight of the turntable, but absorb vibration and reduce acoustic feedback. So if you like to play your music loud enough to rattle the walls, you won't run the risk of rattling the turntable.

FEATURES YOU MIGHT OTHERWISE OVERLOOK.

Besides the big things, the PL-518 has other less obvious advantages. Our platter mat, for example, is concave to compensate for warped records. The platter itself is larger than others in this price range, which means it stays at perfect speed with less strain on the motor.

Even something like our spindle is special. It's 8 microns larger than most, so that the record is always perfectly centered. And instead of flimsy staples, we use sturdy aluminum screws to seal the base plate to the base.

It's details like these as well as advanced technology that gives the PL-518 an incredibly high signal-to-noise ratio of 73 decibels. And an extremely low wow and flutter measurement of 0.03%. Performance figures you'd be hard pressed to find on any other turntable for this kind of money.

So if you want to get the most out of every piece of music, you should have the turntable that gets the most out of every part that goes into it.

CIRCLE 29 ON READER-SERVICE CARD

T BUY A BETTER TURNTABLE FOR UNDER $175.
All turntables are pretty much the same on the outside.
But if you look carefully inside, you'll see the things that separate Pioneer's new PL-518 from others.
Things that add up to a turntable that can reproduce music perfectly, free of audible distortion, acoustic feedback and rumble.

A REMARKABLE DRIVE SYSTEM.
Obviously, all direct-drive turntables have an extremely accurate drive system.
Each offers an immunity to fluctuations in line voltage, pitch control, and a built-in strobe unit to help you regulate the speed of the platter.
But we believe the drive system of the PL-518 is the most accurate found on any turntable selling for under $175. Because the 16-pole, 24-slot brushless DC Servo motor is much the same as those found in turntables selling for $250, if not more.
Equally important is the fact that this motor is anchored to a metal bottom plate, instead of suspended from the base, where vibration can affect your music.

SOMETHING YOU RARELY SEE IN A TONE ARM: THINKING.
To give you further insight into the virtues of our PL-518 you only have to look at the way some tone arms are mounted. On piano wire. Or cheap plastic casings.
Instead, ours is gimbaled on steel pivot bearings. So it can't vibrate.
A great deal of thought also went into developing an auto-return mechanism with fewer moving parts. It imposes less load on the motor and is more reliable than the auto-return on most turntables.
Then there are two separate ball bearing assemblies used in the tone arm for greater stability as it passes over the record.
A plastic headshell is good enough for most tone arms. It's nowhere near good enough for the PL-518. Tests show plastic tends to resonate at frequencies between 75 and 300 hertz. By using a glass fiber shell, resonance above 75 hertz is all but eliminated.
In fact, nothing vibrates on the tone arm with the exception of the stylus. So nothing comes through the tone arm but music.

A SOLID ARGUMENT FOR THE 2-PLY PARTICLE BOARD BASE.
The base on many turntables is nothing more than a hollow plastic shell. Or worse, sheet metal nearly hidden beneath imitation wood veneer. Both seem harmless enough, but they tend to vibrate and cause acoustic feedback when the volume is turned up.
The base on the PL-518, however, is made of two solid blocks of compressed wood, each 20 millimeters thick. When the two are
TO FULLY APPRECIATE PIONEER'S NEW DIRECT-DRIVE TURNTABLE, YOU HAVE TO TAKE APART THE COMPETITION.
at last!
a real
international agreement!

We knew we had something special in Pickering's XSV/3000. All of our technical tests and subjective listening studies gave strong indication of its excellence... but we were simply amazed at the unanimous praise heaped on this new product by the critics and reviewers world-wide.

We have never seen such an accolade for a new product and we attribute it to the engineering innovations that made this cartridge what it is.

So, we put together a booklet which gathers all eight reviews from all over the world.

Go to your nearest store or ask us to send you one. Read the reviews for information... then listen to Pickering's XSV/3000 and be convinced.

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Dept. HF

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"for those who can hear the difference"
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The Moral Equivalent of Music

My March editorial, "Illegitimate Music," began, "I have been receiving a bit of flak over my December tribute to Leopold Stokowski." As readers' letters in this issue show, the March piece itself set off the ack-ack guns again. Some of you may recall that the editorial was basically a defense of a performer’s aesthetic right "to arrange, transcribe, or otherwise doctor music even against the implied or stated wishes of the composer, if he has valid musical reasons for doing so."

First, let me clear up a few errors and misconceptions, one of them my own. The statement that "Bach did not hesitate to transcribe his ... violin concerto into a piano concerto" flowed easily from my typewriter and passed just as easily through a line of musically astute editors. "Piano concerto" should, of course, have been "clavier concerto."

Some readers missed the irony of the title and insisted, in the words of one letter published this month, that "the term 'illegitimate' belongs to the courtroom rather than the concert hall." Certainly. That was the primary thrust of the editorial, at least insofar as musical arrangements are concerned. Oh well, as a traditional bit of advice has it, he who writes with tongue in cheek often ends up with foot in mouth.

To expand on my comment that few performers of Beethoven's symphonies stick strictly to the original orchestration, which many readers interpreted as referring simply to today's orchestras' enlarged string sections and the consequent doubling of the winds, more radical "doctoring" is almost invariably to be found in the brass parts. Here notes have been added and altered throughout the scores, on the assumption that this is what Beethoven would have written if he'd had valved instruments at his disposal. One hardly ever hears adverse criticism of this sweeping rewriting of Beethoven.

Also, to answer other charges, the editorial was neither an attack on "authentic" performances nor a paean to Stokowski's particular arrangements. To the first, I plead a sentence from March: "Some of these performances have resulted in the most exciting recorded versions of particular works." To the second, I do admit preferring Stokowski's orchestral arrangements of Bach's organ music to most renditions on organs, the muddiness of which too often prevents me from hearing the all-important individual musical lines clearly; but frankly, I prefer Respighi's orchestration of the Passacaglia and Fugue to Stokowski's.

Finally, one reader brings up an unusual (to me, at least) point: that it is justifiable to transcribe music if you retain the era's style (Bach's transcription of Vivaldi, Ravel's of Mussorgsky) though not if you translate it into the style of a different era. Interesting. But I then remember Mozart's transcription of Bach and his Mozartean "realizations" of Handel, Brahms's arrangements of Schubert, even Bach's richly chromatic if "unstylistic" harmonizations of centuries-old chorales (What would Luther have said?)

Common to almost all this correspondence was the use of such words as "justifiable," "valid," "correct," "legitimate," "good," and "bad," as though we were discussing aesthetics in terms of ethics. And discussions about art do tend to become discussions about morality, with the "rightness" and "wrongness" of a work of art often becoming important enough to preclude one's simple enjoyment of it. Paradoxically, the greater a piece of music and the more deeply it can be enjoyed, the more violent are the arguments with which the musically literate surround its method of presentation and interpretation and the less likely they are to enjoy it. Too often moral fervor accompanying the defense of an aesthetic principle overshadows the unfortunate masterpiece under discussion. Is it not enough for a massive orchestration of a Bach keyboard piece to move at least those listeners who are not inhibited by preconceived principles for it to be "justified?" On the other hand, if so many people sense an ethical component in art, might there not be a connection between the two?

I believe that the answer to both these questions is yes and plan to discuss the subject, along with what the opening paragraph's "valid musical reasons" implies, next month.

Leonard Marcus
It's hard to find a $1,000 tape deck that doesn't use Maxell. Or a $100 tape deck that shouldn't.

If you spent $1000 on a tape deck, you'd be concerned with hearing every bit of sound it could produce.

That's why owners of the world's best tape decks use Maxell more than any other brand.

But if you're like most people, you don't own the best tape deck in the world and you're probably not using Maxell. And chances are, you're not hearing every bit of sound your tape deck is capable of producing.

Whatever you spent for your tape deck, it's a waste not to get the most out of it. So spend a little more and buy Maxell.

Maxell. You can think of us as expensive tape. Or the cheapest way in the world to get a better sounding system.
Q. Where should you start in your search for better sound?

A. At the beginning. With a new Audio-Technica Dual Magnet* stereo phono cartridge. Our AT12XE, for instance. Tracking smoothly at 1 to 1-3/4 grams, depending on your record player. Delivers smooth, peak-free response from 15 Hz to 28,000 Hz (better than most speakers available). With 24 dB of stereo separation at the important mid frequencies and even 18 dB of separation as high as 10 kHz and above. At just $65 suggested list price, it’s an outstanding value in these days of inflated prices.

Audio-Technica cartridges have been widely-acclaimed for their great sound, and for good reason. Our unique, patented* Dual Magnet construction provides a separate magnetic system for each stereo channel. A concept that insures excellent stereo separation, while lowering magnet mass. And the AT12XE features a tiny 0.3 x 0.7-mil nude-mounted elliptical diamond stylus on a thin-wall cantilever to further reduce moving mass where it counts. Each cartridge is individually assembled and tested to meet or exceed our rigid performance standards. As a result, the AT12XE is one of the great bargains of modern technology ... and a significant head start toward more beautiful sound.

Listen carefully at your Audio-Technica dealer's today.

COMING NEXT MONTH

Like midsummer’s varicolored blossoms, our July issue will contain something for just about every taste. Howard Roberson provides a fistful of invaluable pointers on How to Buy and Install a Trouble-Free Hi-Fi System. John Borwick, audio editor of England’s Gramophone, is ideally situated to describe The Audio Scene in Britain Today. 1978 being the fiftieth year since Brecht and Weill’s Threepenny Opera was premiered in Berlin, Kim Kowalke gives us a discographical survey of Kurt Weill in Berlin, and Maurice Abravanel a personal reminiscence of the composer. Assistant Audio/Video Editor Cynthia Pease looks at Women as Audio Consumers, and Gene Lees continues his odyssey through Music U.S.A. In BACKBEAT, Sam Sutherland searches for home truths about Foreigner, and Diane Rapaport surveys Independent Labels. Plus six laboratory/listening reports on new equipment, our regular columns, record reviews, and more.

SOLUTION TO HIFI-CROSSWORD NO. 35

[VINCENT] GODEFROY
[The] Dramatic Genius of Verdi

Though both Rossini’s work and Verdi’s may be staged with full Oriental splendor, Semiramide remains a fancy-dress Grand Opera while Nabucco has been widely credited with a sort of Biblical seriousness and authenticity, in spite of its preposterous plot.

AUDIO-TECHNICA U.S.A., Inc., Dept. 68H-2. 33 Shiawassee Avenue, Fairlawn, Ohio 44313

CIRCLE 7 ON READER-SERVICE CARD
FISHER INTRODUCES THE WORLD'S FIRST CASSETTE DECK WITH WIRELESS REMOTE EDITING.

Tape recording will never be the same.

In Fisher's 41 years of audio leadership, we've introduced many important high fidelity "firsts." But we honestly think the new CR4025 tape deck is one of our most exciting and practical innovations.

Remote electronic editing is as important an advance in tape recording as the cassette. Now for the first time, you can really enjoy creating your own personal music library from FM broadcasts or record albums. The editing is done electronically while recording. A great leap forward from the old way of recording... with jumping up and down every 3 minutes to edit.

Fisher's wireless remote electronic editor makes tape recording a pleasure. The CR4025 tape deck has a built-in wireless receiver that operates the deck's solenoid-actuated Pause mechanism. The remote control transmitter operates the Pause control instantly from up to 20 feet away. Relax, listen, and capture the selections you want to keep at the push of a button.

Zap! You eliminate any commercial or announcer's voice from your off-the-air FM broadcast recording... or skip any unwanted track on an album you're taping from.

Of course, this fantastic convenience wouldn't be worth much if you had to sacrifice performance. Fortunately, you don't — the CR4025 has the excellent frequency response and extremely low wow & flutter that you expect from Fisher, plus Dolby noise reduction for clean, noise-free recordings.

The Fisher CR4025 is priced at $250* and is available at selected audio stores or the audio department of your favorite department store. For the name of the nearest Fisher dealer, please call toll-free 1-800-528-6050 ext. 871 from anywhere in the U.S. (in Arizona, 1-955-9710, ext. 871).

*Manufacturer's suggested retail value. Actual selling price is at the sole discretion of the individual Fisher dealer.

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THE LOUDSPEAKER THAT LOOKS AT MUSIC THE WAY YOU DO. JBL's L110.

You're at a concert. The sound surrounds you. There's a guitar. A piano. Some horns. You hear all of it.

But more than that, you hear each part of it. Each sound. Every sound. All the sound.

Most loudspeakers can't do that. They only meet you half way. Only left and right, all or nothing. JBL's new L110 goes all the way. It looks at music the way you do. Left. Right. Front. Back.

The L110 has almost perfect stereo imaging — a result of precise, uniform dispersion at every frequency.

Inside the L110, there's a brand new, super-sophisticated crossover network designed specifically to match the brand new components.

There's a new 10" woofer which utilizes a massive 3" voice coil and 7½ pound magnetic assembly—normally found in 12" woofers. The result is smooth, accurate bass, plus an amazing level of efficiency and power handling capability throughout the entire system. (One more nice: You get more headroom for your amplifier. Less clipping.)
Now look at the L110. The most acoustically transparent grille JBL has ever created is visually transparent, too. You can see right through to the satin black components inside.

If you'd like a lot more technical information on the L110, write us and we'll send you an engineering staff report. Nothing fancy. Except the specifications.

But you really should come listen to the L110. And ask for it by its first name: JBL. You'll be getting the same craftsmanship, the same components, the same sound heard in the very top recording studios in the world.

Over four hundred of the leading recording studios in the world—from London to Los Angeles to Muscle Shoals to Munich to Tokyo to Tennessee—use our sound to make theirs. Shown here is Capitol Records in Hollywood.
We build a speaker that sounds like music

It can accurately reproduce the 120+ dB peaks that are found in some live music. That's more than just being able to play music loud. It can accurately reproduce the music bandwidth—from below 25Hz to 20kHz. And the Interface D's vented midrange speaker reproduces midrange sounds with the clarity and purity that allows precise localization of sound sources—both lateral and front-to-back.

The Interface D is the only commercially available speaker we know of that can meet these criteria. Audition them at your Interface dealer.

Letters

Something for Everyone

As I was sorting through family photographs for 1977, I came across a picture [above] that I thought you would particularly enjoy. Keep up the good work—there is something in your magazine for everyone.

Norma J. Klimpke
Dhahran, Saudi Arabia

Illegitimate Music

I am sure that I am only one of many who were somewhat disturbed by the editorial "Illegitimate Music" by Leonard Marcus [March]. He makes several statements that reveal both a prejudice and a lack of solid musical knowledge. Mr. Marcus refers to "historically 'correct'" if often sterile performances. "Are we to assume by this often-made association that poor performances of old music using "historically correct" instrumentation can be authentic in spite of glaring faults? The underlying philosophy of all baroque music is contained in the so-called doctrine of affections, that music must primarily affect the emotions. An unmoving performance of a good baroque piece should never be condemned for being "authentic" or "historically correct." It is merely a poor performance. There is more to authenticity than can be written on the back of a record cover.

Mr. Marcus also makes the common error of justifying transcriptions from one era to another on the basis that Bach et alia transcribed works of their own time. The articulated style of playing the violin in the seventeenth century had its counterpart in harpsichord playing and other instruments as well. The instrument may have changed, but the style and character of the performance did not. The same principle operates to great effect in Ravel's transcription of Pictures at an Exhibition. But this is not sound justification for transcribing baroque music for modern playing styles and instruments.

The ultimate question of the editorial remains, however: Does a performer or arranger have "the aesthetic right... to arrange, transcribe, or otherwise doctor music even against the implied or stated wishes of the composer, if he has valid [my emphasis] musical reasons for doing so?"

Although I disagreed with Leonard Marcus' defense of Stokowski's excesses in the December issue, I accepted them as opinions. However, the dictum in his March editorial that "a work of art has a life of its own" and that its creator has nothing to say about it "after he has given it birth" is contradicted by his final statement, that "the only criterion can be: How musical is the result?"

The answer to that very large question is that the re-creative mind must be as powerful as, and on the same wavelength with, the composer's. Bach and Handel transcribed their own music for other instruments, but they had that privilege as creators of the musical ideas contained therein. Apropos of the rhetorical question of Vivaldi transcribing his own music, the answer is that the result would have been immensely different from the product of August Stradai's vulgar mind.

That twentieth-century orchestras must augment sections to bring out original balances is correct: Toscanini did it with Beethoven, Beecham with Mozart, and so on...

Correction

In our March article "VCRs: A Way-Of-Life Revolution in the Making?" an error appeared in the Video Tape Fact Sheet on page 64. Two Beta-format tapes are available in 30- and 60-minute lengths, costing $13 and $17, respectively, and making approximate tape cost per hour at full speed $26 and $17. At half speed, the tapes will accommodate 60 and 120 minutes, respectively, making approximate tape cost per hour $13 and $8.50.
The specifications of your cassette deck may look outstanding. But its actual performance — the quality of your music reproduction — can only be as good as the tape you use. To ensure optimum performance, all of the time, you need Fuji cassettes.

Consistency. Cassette tape performance can vary with each cassette tape. Consistent performance, however, can only be guaranteed by a company which produces all the elements that go into their tape. A company like Fuji. We make our own base film and our own binder material. We produce our own oxide and do our own coating. Stringent quality control, including factory testing of each cassette, further assures you of total reliability and highest fidelity, always.

Versatility. The new Fuji FX-I 120μs normal-bias formulation is ideal for use with home, portable and car decks; because Fuji FX-I is completely compatible with every normal-bias machine.

Bias Acceptability. To ensure perfect compatibility between your machine's factory-set bias and your tape, you need a tape with a wide range of bias acceptability. Like the new Fuji FX-II 70μs Beridox cassette. Its bias latitude is much greater than most other high-bias formulations.

Wow and Flutter. The friction created by conventional cassette housings may adversely affect the wow and flutter performance of your cassette machine. So Fuji designed a new housing for the FX-I and FX-II tapes. With unique teflon coated waffled slip sheets, convex guide rollers (for more accurate tracking) and improved pressure pad, the new Fuji housing substantially reduces friction.

So to get the best possible performance from your cassette machine, to make your music sound clean, clear and crisp, visit your Fuji dealer today. Tell him you want to upgrade your hi-fi. Tell him you're ready to Fuji-Fi.
ASK ANY AUDIO ENGINEER ABOUT PHILIPS 4 NEW RECEIVERS. HE KNOWS.

You're a tough customer. Before you buy any piece of equipment you check it out. You talk to experts. And that's exactly what we want you to do. Talk directly to any audio engineer. Or any expert you trust. Ask him any question you like. We're not afraid of your questions, because we've got the right answers.

Before we designed our four new receivers we carefully researched audiophiles like you. Because we know that if we can please a tough customer like you, we'll please everybody.
Why Four Receivers?
Our engineers wanted to cover the full range of people's needs. And give everyone the advantages of Philips technology. The efficient Philips AH 784, with a four speaker capability, can fill any apartment with clean, accurate sound. The AH 787 is for those who like power behind their bass notes and drive behind their highs. A big, powerful receiver with a six speaker capability, the AH 787 is one receiver even audiophiles admire.

Honestly, How Much Distortion?
Honestly, not much. All four of our receivers, from our AH 784 with 20 watts per channel, minimum RMS, to our AH 787 with a big 60 watts per channel, minimum RMS, have less than 0.1% total harmonic distortion from 20 Hz to 20kHz at 8 ohms. Which means that in one crucial area, our least sophisticated receiver is just as sophisticated as our best. No matter how much power you need nobody needs distortion.

How Good is the AM Section?
An unusual question. Normally, everyone neglects AM and touts their FM. Which is exactly the point. We neglected nothing in designing our receivers. Not even the AM. After all, you pay for AM, too. You might as well get the best. Our circuitry provides clear, sensitive reception with very low distortion. And on the AH 787 there's a center-tuned meter - just like the FM. For precision tuning and optimum reception - just like the FM. And that's a Philips AM exclusive.

Like Our AM? You'll Love Our FM.
It's state of the art all the way. A Phase Locked Loop Multiplex Decoder locks onto the 19kHz pilot and holds it. High Q RF tuned circuits reject unwanted signals. Dual gate MOS FET's provide optimum gain and immunity to overload. And to all this we add a Philips FM exclusive - Automatic Stereo Noise Cancelling. It virtually eliminates annoying noisy broadcasts on the AH 787 receiver. Highly accurate sensors monitor interference. If the noise level rises too high a switching FET kicks in to kick out the noise.

What if I Get Overloaded or Overheated?
Then special Philips circuits will come to your rescue. With a complete, reliable series of protection systems. The AH 785, AH 786 and AH 787 are all protected against overloads and short circuits. The AH 787 automatically disconnects your speakers when sensors detect abnormal DC voltages at the receiver output. And thermal protection is provided on the AH 786 and AH 787.

You're just one toll-free call away from all the answers. Just dial 800-243-5000 and we'll send you a free copy of "Ask us about stereo. We know." It's our new brochure and it's filled with important facts and information. Prepared by a team of Philips audio engineers it can help answer a great many of your questions.

When you want to know about stereo, ask us. Because when you've got the right answers, you can answer all the questions.

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EVERYONE WHO KNOWS, KNOWS PHILIPS
High Fidelity Laboratories, Ltd.
The one alternative to separates:
The Yamaha CA-2010 Integrated Amplifier.

The Head Amplifier. Discerning music lovers all over the world are discovering the transparent highs and extended frequency response of the moving coil phono cartridge. While other manufacturers require the addition of an expensive preamp or step-up transformer to boost the low output signal, Yamaha included a special head amplifier in the CA-2010. It's available with the flip of a switch on the front panel. And to help you get the most out of moving magnet cartridges, there's a 3-position phono impedance selector.

The Preamplifier. To assure exact, repeatable bass and treble settings, the controls are precision calibrated in 1/2dB steps. Dual turnover frequencies for both ranges double the versatility of these accurate tone controls. Completely independent Input and Output Selectors let you record one source while listening to another. And the power meters are easily switched to REC OUT readings in millivolts, so you can monitor the actual output level to your tape deck for cleaner, distortion-free recordings.

The Power Amplifier. 120 watts RMS, with no more than 0.03% THD 20Hz to 20,000Hz into eight ohms.

For tighter, cleaner bass response, the amplifier can be switched to DC operation. Class A operation is switchable on the front panel, delivering 30 watts RMS, with no more than 0.005% THD 20Hz to 20,000Hz into eight ohms.

The twin power meters are fast-rise, peak delay—they can track even the briefest of transient bursts. Plus they can respond to levels from 1mW to 316W (into eight ohms).

Real Life Rated.® The specifications of the individual components of the CA-2010 are superior to many separates. Individual specifications alone, however, can't possibly reflect actual in-system performance. That's why Yamaha measures overall performance from phono in to speaker out, rather than at designated points along the signal path. Furthermore, we measure noise and distortion together over a broad output range, rather than individually at the optimum output.

Our Real Life Rated measurement is called Noise-Distortion Clearance Range (NDCR). On the CA-2010, NDCR assures no more than 0.1% combined noise and distortion from phono in to speaker out, rather than at designated points along the signal path. Furthermore, we measure noise and distortion together over a broad output range, rather than individually at the optimum output.

Superb tonality from a musical tradition of technical excellence. The tonal accuracy of our audio components is referenced to the same standards used to evaluate the tonal accuracy of our world-renowned musical instruments. The result is a rich, clear tonality that is unknown elsewhere. You really must hear it.

You really must hear the same resolutely accurate music reproduction available from all four Yamaha Integrated Amplifiers and four superb tuners. All are made to a single standard of excellence—a standard rooted in a 90-year tradition of musical perfection.

For a personal audition of the new Yamaha CA-2010, as well as the rest of our complete line of components, just visit your nearest Yamaha Audio Specialty Dealer. If he's not listed in your Yellow Pages, drop us a line.

Real Life Rated

YAMAHA

Audio Division, P.O. Box 6600, Buena Park, CA 90622

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their orchestrations were so successful that they are still used to a large extent today. But in both cases—orchestrations of works for solo instruments and re-orchestrations of extant scores—Stokowski went to excess. Transferring Bach's organ music to gossamer, italicized string sections did not promote widespread enjoyment of the organ works, per se; nor did the use of fourteen French horns in the finale of Beethoven's Seventh Symphony convince one that this was prompted by a musical aesthetic equal to the composer's.

Stephen M. Stroff
Cincinnati, Ohio

It would seem that Mr. Marcus thinks a hierarchy of right and wrong exists in the arts. As a composer I find this a defenseless position. If a work of art is created, it exists. If it is altered, it becomes something different. Pictures at an Exhibition by Mussorgsky, orchestrated by Ravel, is not the same work as Pictures as orchestrated by Touschmaloff. The tendencies of this century are still caught up in the ego-oriented musical thinking of the Romantic age. The term "illegitimate" belongs to the courtroom rather than the concert hall.

Karl F. Miller
Denton, Tex.

Mr. Marcus addresses these points in his editorial in this issue.

Paganini Pic Pegged

According to Miss Geraldine de Courcy, who researched the question for the book Violins and Violinists by Franz Farga (London: Barne & Rockliff, 1969), the "rare pre-Daguerreotype" picture of Niccolo Paganini that accompanies Sol London's article "The Devil in Paris" [February] is a fake. She was able to trace it to Giuseppe Fiorine (1861-1938), an Italian violin dealer. He fabricated the picture in a studio in Venice and copyrighted it in Munich in 1900.

Allan C. Howard
Midland, Mich.

Despite the garbled addendum to reader Paul Morrison's letter in our April issue, Mr. Howard was able to translate our plea for help in identifying the true source of the spurious photograph of Paganini, and we thank him.

Czech-ing up on Hamilton?

David Hamilton, in his review of the new London recording of Leos Janacek's Ktlya Kabanová [January], refers to the "poverty of vowels" in the Czech language. There are in fact five vowels in the language: a, e, i, o, u (counting i and y, e and è as identical), most of which modify when lengthened. There are three diphthongs (omitting those formed with j) and two consonants, l and r, sometimes better termed semi-vowels.

Hamilton properly stresses Janacek's fidelity to the intonations of Czech (or Moravian Czech, anyway) but risks having beginners believe that the language is somehow glottal and unmusical. Is English,
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with its plethora of diphthongs, a more "musical" language than Czech? Muddy waters these, indeed. M. B. Thompson Ottawa, Ont.

Mr. Hamilton replies: By "poverty of vowels" I was referring not to the number of available vowels in the Czech language, but to the fact that many words in that language lack open vowels or include accented syllables lacking them. l and r may function as "semi-vowels," as Mr. Thompson points out, but that doesn't make them any more conducive to open-throated vocalization. You can't ask a tenor to sing a sustained high note on the first (and accented) syllable of "sr-ť-cé" (heart). This doesn't mean that Czech is "unmusical" (nor did I suggest that), but it inevitably affects the way composers write for the voice in that language, especially if they are, like Janáček, trying to imitate the patterns of normal speech rather than merely stringing Czech words onto basically instrumental melodies. The question isn't one of a language's "musicality," but of finding appropriate modes of setting it to music.

[Coincidentally, Patrick J. Smith writes at length of Janáček and his music in this month's issue—Ed.]

Rimsky's Boris

At the risk of venturing an un fashionable opinion, I for one would be sorry to see the Rimsky-Korsakov Boris Godunov go. Though I regret some of Rimsky's changes of harmony and cuts, on the whole I certainly prefer his version to the original, at least as represented by Angel Records' new performance [reviewed in January]. Perhaps the restraint shown by the "modest" composer in the Polish scene is touching in its own way; though my purist head says "fine," my heart gets a whole lot more excited by Rimsky's skyrockets. It may be fraudulent art, but it surely is better opera, for Pyotr's sake!

I'm sure Rimsky's motives in reworking Boris were selfless, and it seems we may owe him a debt for enabling the work to live, it could have faded into obscurity. Certainly we owe to him the living score of Khovanshchina, and I think we should be grateful for Rimsky's arbitrations. It would also be fascinating to hear the other arrangements—namely, Rathaus' and Shostakovich's—on recordings.

Alan J. Klein Cincinnati, Ohio

Both the Rathaus and the Shostakovich revisions have been around, in various forms; we turned to our Boris chronicle, David Hamilton, for particulars.

Two discs' worth of the Rathaus score were available in the deleted RCA set (LM 6063) based on the Met production of the Fifljes, sung in English, conducted by Dimitri Mitropoulos. The Rathaus-based Met broadcasts of 1953, 1954, 1956, and 1959 circulate in the tape underworld. So do tapes of the 1961 and 1963 Met broadcasts, conducted by Erich Leinsdor and Georg Solti, respectively, which are based on the Shostakovich orchestration of Mussorgsky's second (1871-72) version—though evidently with some additional tinkering. As Mr. Hamilton noted in a May 1977 Boris review, a disc of Shostakovich excerpts from Dresden, sung in German, is available as Telefunken SAT 22526 (not issued domestically). Shostakovich's scoring can also be heard on tapes of Soviet origin, and a recording of Act II has just turned up as one side of a Columbia/Melodiya recital by the bass Boris Shitkovol (M 34569), the latter reviewed in this issue.

Folio Reviews

I read with interest Elise Breton's review of Joan Baez's "Blowin' Away" [BACKBEAT "Folios," March]. She stated, "Without the intense, thrumming Baez guitar, we are aware that melodic innovation is perhaps not the lady's strong point." Thrumming guitar, indeed. If you will check that album's credits, you will find that the guitarists are Elliot Randall, Dean Parks, and David Mansfield. Ms. Baez's only instrumental performance is on synthesizer. Your writer should stop reviewing sounds that exist only in her imagination and pay more attention to what is on the record or in the music.

John Batchelor Greensboro, N.C.

Ms. Breton reviewed the folio of "Blowin' Away"—that is, the printed collection of the songs contained on the album. A folio critique does not concern itself with performances or performers, but only with the album's content as transferred from the record to the printed page. Ms. Breton's point was that Baez's melodies, removed from the sound of the "thrumming guitar" (on which they were presumably conceived) and transferred to the piano-vocal arrangement of the folio, lose something in the translation.

A Nation of Lawbreakers?

I read with interest Leonard Marcus' editorial in the January issue of your magazine. It asked the question whether or not a person could record a copyrighted work in his home and play it for his mother or any guests who might be present. I am a musician and have tape-recorded myself for years, and most of the recorded compositions I have on tape are under copyright. Some time ago, I went to our library and checked into this question. As I interpret the law, Article 107 (which deals with the doctrine of "fair use") allows me, or anyone else, to tape a recording from one's own collection and be perfectly within legal boundaries. This reasoning would also seem to apply in regard to arranging Shostakovich's scoring—a copyrighted work in your own home, so long as no commercial use is made of the resulting tape.

Of course it could be argued, and I think rightly so, that some profit could be siphoned off from performers, composers, or record companies by those who would...
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copy instead of buy the recordings in question. But this does not apply to persons who tape only their own records to preserve their noise-free state (as I do).

Most of the decks sold on the market today are designed to facilitate taping from FM and discs. What is the use of tape-deck manufacturers—such as Sony, Teac, Marantz, Akai—going to all the trouble of making machines capable of high-quality recording of music if those machines are not allowed to be used because of copyright laws?

And consider Sony's Betamax video cassette recorder. I would say that better than 90% of the buying public that purchases these units, and those of other brands, uses them to tape television programs, most of which are copyrighted material. No one has put a stop to their manufacture and sale. If it is unlawful to use them, the law certainly isn't being enforced.

Lonnie L. Lillard
Portland, Ore.

We wish we could agree with Mr. Lillard's point of view. Unfortunately, in the reading of most observers—the "fair use" provision notwithstanding—the new copyright law does not give anyone the right to record copyrighted music or recordings even if no commercial gain is to be obtained from such recording. So until a court of law decides otherwise, many will be constantly breaking the new law.

Of Saint-Saëns and Organs

I am an organ enthusiast of long standing and own many recordings of the Saint-Saëns Third Symphony. It seems to me that R. D. Darrell was in an unusually uncharitable mood when he reviewed the Chorzempa/Rotterdam Philharmonic/De Waart recording of that work [March]. I appreciate the drama and Frenchness of the versions he prefers and would not be without them. But we are dealing with a warhorse, as Darrell admits, and warhorses benefit from fresh perspectives now and then. To me the Rotterdam recording—with its cool position in new ways.

The unidentified organ in this performance is the 100-plus-rank instrument built for Rotterdam's De Doelen hall by D. A. Flentrop in 1966. The builder told me that he checked with a friend at Philips after hearing the recording. The organ has been highly acclaimed in other circumstances. It does not have the sound of a late-nineteenth-century French organ, but this hardly justifies the reviewer's unkind remarks.

Douglas Johnson
Atlanta, Ga.

Mr. Darrell replies: Total "coarseness"—like beauty of any kind—is all in the eye, and ear, of the beholder. But even an uncharitable reviewer is grateful to have the organ in question properly identified.

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New York—When I was walking past Carnegie Hall a little time ago, I was reminded of two things: One was that this year is the thirty-fifth anniversary of Rachmaninoff's death, and the other was that in December 1942 I bought a ticket at Carnegie Hall for what turned out to be his last appearance in New York. I was eighteen at the time and en route to flying training in Trinidad. About fifty of us were waiting for a ship with an unknown departure date, and it was then that I saw the poster: Rachmaninoff was playing his Paganini variations in a concert conducted by Mitropoulos, which was to end with the Symphonic Dances (which I had never heard). Sadly, I still have the ticket to that concert intact, because one day earlier the wretched ship arrived and we were transported. Three months later Rachmaninoff died.

His music had appealed to me ever since I first heard the Second Concerto, and back home in England I think I had every record of his works available. In New York, I was able to supplement the collection with works that were hardly ever played in Europe: I bought Ormandy's recording of the Second Symphony and, a month or two later, played it to a packed auditorium on the air base in Trinidad. My generation never seemed to have any doubts about Rachmaninoff, which was more than could be said for our elders and betters, especially in the music profession. This I found out with a wallop when, after the war, I set about to write a book on his music, which I quickly and painfully discovered was a venture best left unmentioned in musical circles. The "discovery" of his music in recent years (and especially in Europe) must have given cause for hollow laughter on the part of those like Ormandy, Stokowski, and Mitropoulos, who had recognized its qualities from the start.

The writing of the book brought me into contact with many people who had known Rachmaninoff. His London agent still treasures a cable with a splendidly comical punctuation misprint. It just says, "PLEASE CANCEL STOP LIVERPOOL RACHMANINOFF." I shall always think of him as Liverpool Rachmaninoff, just as I shall never be able to hear Brahms's German Requiem without being reminded of a poster I saw a month or two ago in Perth, Australia, which announced that the work was by Bruce Brahms.

The book also led me to correspond with Mrs. Rachmaninoff, and eventually she invited me to visit her in Switzerland, where the Rachmaninoffs had a villa at Hertenstein on the Lake of Lucerne, just across from Wagner's Tribschen. The outcome of that visit was a disaster, for I made the mistake of taking the galley proofs for her to read. Except for two very brief biographical chapters, the book was entirely about the music (there was no similar book at that time), and some of it was critical. On my second and final visit to the villa, Mrs. Rachmaninoff came down the stairs holding the galleys by the tips of her fingers, as if they were something nasty she had found in the lake. It was entirely my fault, for I should not have been so naive as to suppose she would tolerate adverse comment on any of her husband's music, no matter how much enthusiasm I had shown for the rest.

All the same, I wish she had lived long enough to witness the critical re-evaluation of Rachmaninoff that has taken place over the past twenty years or so. (It is to be hoped that the new Grove dictionary will make amends for the appalling entry in the current edition, although it has to be said that the entry was typical of the prevailing academic attitude at the time.) Singers have discovered what marvelous songs he wrote, and pianists have delved beyond the concertos and the preludes. Conductors have found out that the Second Symphony isn't too long for audiences today (it probably never was), and RCA has issued that splendid set of albums containing everything Rachmaninoff recorded, both as a pianist and as a conductor. For a composer with such a modest output, he has at last achieved his proper (modest) place in the musical history of this century. But it still hurts me to pass Carnegie Hall and remember that I missed by one day my one and only chance of hearing him in person.
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16. Rationalism vs. Music
by Gene Lees

MUSIC IS THE IRRATIONAL ART, the one that requires no comprehension for its effect. The next time you find yourself tapping a foot or nodding your head ecstatically to jazz, or are moved to an ineffable melancholy by something like the trombone theme toward the end of the Sibelius Seventh Symphony, or feel a sudden irresistible urge to get out on the floor and dance, consider how subrational these responses are.

Literature, on the other hand, is the most rational of the arts. It cannot function without understanding. When you read a novel or see a movie or a play, it is your understanding of the situation and your way of relating it to your own conscious experience that produces your reaction to it. Even in literature dealing in fantasy, if it is to have an effect, you must give it what Coleridge called “that willing suspension of disbelief for the moment, which constitutes poetic faith.” Yet the writer is saddled with the job of earning such a suspension by persuading the reader that his fantasy has a basis in reality, and the extent to which he can achieve that is one of the measures of his greatness.

Through much of history, painters and sculptors, too, were charged with presenting “fact”—the persuasive visual representation of reality. But realism became a burden. Eventually painters grew bored with representation (besides, the photographers were breathing down their necks) and moved into various kinds of stylization and abstraction. And graphic artists have yearned, often in frustration, after the abstraction with which the musician works. That is the meaning of Walter Pater’s observation, “All art constantly aspires towards the condition of music.” Music does easily and well what the other arts do badly, if at all: manipulate the emotions by subrational means.

The reason it can do so, I have become convinced, lies in the nature of hearing. Literature has no sensual dimension whatsoever. Though graphic art, including that used to enhance a movie or a play, has a limited amount, it appeals to a sophisticated and highly directional sense—namely vision. Hearing is a far more primitive and undifferentiated sense. It is a kind of omnidirectional early-warning system. If you are startled when someone approaches you while you are engrossed, it is likely to be the sound, not the sight, of him that causes the sensation.

We respond to sound itself, not necessarily to anything it means. I am not impressed by the thesis that music functions as “symbolic speech,” although the extent to which it suggests speech may reinforce its fundamental effect. In that case, the rational is reinforcing the irrational.

Does this theory of the “irrationality” of music help to explain England’s lack of musicality? No people has proved so gifted at that rational art, literature—both printed and theatrical—as the English; this gift is prominent as well in the Anglo-Saxon Americans. Significantly, I think, the Scandinavians too have produced a creditable body of literature, ranging from the plays of August Strindberg and Henrik Ibsen to the novels of Knut Hamsun, the fantasies of Hans Christian Andersen, and the screenplays of Ingmar Bergman.

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Not only is Decca Brush number one in static removal. It is also unique in having one million carbon microfibers, each less than one mil thick. Over 1000 microfibers enter each record groove. Their fineness lets them reach the bottom of the grooves, where other, thicker-bristles brushes can’t. Bottom-of-the-groove dust, which would otherwise be ground into grit by the stylus—is effectively removed by the Decca Brush. The result: less distortion, less stylus wear.

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Few of us get our records free of charge—we pay plenty for them. Decca Record Brush pays for itself again and again in extended record life and sustained original performance. Sugg. list price $16.95 at fine audio and record stores.
MIRRORS

reflect highs.

Your stereo probably doesn't have the sound you thought you bought. Because you first heard it in a sound room. Unfortunately, most stereos are set up in rooms designed for living. Not listening.

That's why you need a Sound Shaper One or Two. The frequency equalizers that re-shape music to fit your ears. And your living room.

Sound Shaper One has ten frequency controls, five for each stereo channel. But if your system is more sophisticated, you'll want Sound Shaper Two with twenty-four frequency controls (twelve for each stereo channel). So highlight the vocal. Suppress the bass. Wipe out the flute entirely. And if you want the real professional touch, get the SLM-100 Sound Level Meter which can help you to achieve perfectly flat frequency response.

Without redesigning your living room, turn it into a listening room.

Sound Shaper One and Two

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CIRCLE 4 ON READER-SERVICE CARD

The English also have traditionally been the most democratic of peoples. (The ideas that led to the American Revolution, be it noted, were English—and in fact the revolutionaries were Englishmen demanding "the rights of Englishmen"). Democracy, to function at all, requires the voluntary cooperation of its people to maintain social order. To the degree that you have to force cooperation through the use of police and other kinds of social compulsion, you have diminished and diluted democracy. But this voluntary restraint demands of individuals' enormous self-control rooted in the understanding that, if all citizens manifest such control, all can have the commensurate individual freedom. Democracy, then, rests on understanding—arrived at rationally.

The inference seems inescapable that a rational life, or at least the yearning and striving for the rational life, is favorable to the development of a national body of literature—reasoned presentations of the writers' views of life and of people. But it is not favorable to the development of a national body of music.

This is not to say that democracy is inimical to music, only that the condition most conducive to a flourishing democracy is not the most favorable for the making of music. Men who can so control or conceal their emotions as to facilitate the maintenance of public order are not likely to harbor in their souls the proclivities most likely to erupt into music—that irrational art one loves so unreasonably and practices out of indescribable impulse.

It would be an error, then, to blame the lack of music in the history of the English (or the democratic Swiss) entirely on democracy—or on Calvinism, which is credited by historians with encouraging the rise of democracy and industrial capitalism. No doubt Calvinism took root in England (and Switzerland) because attitudes and inclinations already nascent in the people made them particularly susceptible to it. A Dominican priest once said to me, "Catholicism is a mystical religion: Protestantism is a rationalist religion." He was quite correct. The English found a rationalist religion appealing and adopted it, and the religion in turn reinforced their rationalism and immunized them against any epidemic of music.

A revolution against this emotionally restricted attitude, and the hymn-like music it inspired, resulted in jazz: a tacit acceptance of it resulted in rock. I will examine this proposition next month.
The new 600 II Cassette Console does not leap over tall buildings in a single bound. It has no flashing lights. It doesn't have a built-in computer, and it won't make coffee for you in the morning.

But the 600 II does one thing better than any other cassette deck in its class: make recordings that are indistinguishable from the original.

Beneath its functionally elegant, sloped panel lies some of the most sophisticated engineering in the world. Thanks to Nakamichi's latest achievement in magnetic technology, the incredible SuperHead, the 600 II sets new standards for two-head cassette deck performance, with a guaranteed minimum frequency response of 35-20,000 Hz ± 3dB.

These days, you can buy a three-head cassette deck for about half the price of the 600 II. But anything less than Nakamichi, regardless of the number of heads, motors, etc., would mean a compromise in sound quality.

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AKG has created a new line of cartridges that go beyond left and right channel separation. Now, a third dimension has been added...depth, in which the relative placement of instruments from front to back can be recognized.

With Transversal Suspension, these new cartridges recreate orchestral sound precisely as you would hear it during a live performance...and with a spatial fidelity you must hear to believe.

In conventional stylus assemblies, the stylus pivot tends to shift, particularly when tracking higher frequencies. The result is reduced separation...unstable stereo "imaging."

The unique AKG-patented Transversal Suspension allows the stylus to move freely, yet suppresses torsional and axial forces so that pivot point shift is virtually eliminated. The full sound spectrum is reproduced precisely...without the effects caused by (1) mechanical resonances or (2) intermodulation.

There's much more to the story behind the superb performance of the new AKG cartridges. So take your ears to your dealers, listen critically...and compare. You're sure to be favorably impressed. There's a wide range of models to meet your particular needs.

At selected dealers everywhere.

For Sound Collectors, ARSC Is the Answer

by David Hamilton

How good can a 1906 Edison cylinder be made to sound?
What are the important factors in maximizing the advantages when you leave your record collection to a public institution?
What does the new copyright law say about pre-1972 recordings?
What did the voices of Gladstone, Brownings, Tennyson, and Florence Nightingale sound like?
What happened in the postwar years to the famous Toscanini film of Verdi's Hymn of the Nations?

If answers to any or all of these questions intrigue you, you should have been at the twelfth annual meeting of the Association for Recorded Sound Collections, held in Washington, D.C., near the end of February. ARSC—as it is acronymically designated—is a vigorous and growing organization, serving not only the institutional collections that provided its strongest initial impulse, but also private collectors of all persuasions. If you collect sounds—be they cornet solos, presidential campaign speeches, old operatic singers, jug bands, Berliner recordings, radio serials, or famous actors—ARSC is where you belong, where you will find information, contacts, ideas. Its publications include a bulletin devoted primarily to organization business; a newsletter that serves as a forum for queries, discographical notes, and all kinds of miscellaneous information; and—most substantially—the journal. Recent issues have included articles on the problems involved in producing historical reissues by A. C. Griffith of EMI (who spoke at the Washington meeting) and John Pfeiffer of RCA; major discographies (the latest issue covered Karl Muck and Richard Strauss as performer); and detailed, authoritative reviews of historical recordings and related books in all areas, from such tantalizing but hard-to-find items as Japanese EMI's twelve-disc compilation of Karajan's pre-1950 Vienna Philharmonic recordings to the recent discography of the Beatles.

At the meeting—sponsored jointly and graciously by the Library of Congress, the National Archives, and the Smithsonian Institution—we heard about an ambitious and exciting project for a union catalog of pre-LP sound recordings in American and Canadian archives, about the work and personality of Emil Berliner (who developed the flat-disc recording method), about broadcast recordings and the various archives devoted to preserving them. The panel on copyright made clear that the new law isn't always clear, and also called to our attention a point that hasn't been much publicized: In the year 2047, all sound recordings made before 1972 will finally fall unequivocally into the public domain. Until then, existing state laws relating to unfair competition, privacy, and the like will continue to apply—in other words, the present "gray area" will subsist for quite a while, with the result that some recordings will have an effective protection of nearly a century and a half from the time they were made. This is as patently inequitable as the situation the law was meant to correct.

Another panel, on the appraisal of record collections, was also illuminating: how an appraisal is made, and how the IRS looks at it. Among other points, the participants agreed that a coherent, well-cataloged collection would probably command a valuation over and above the sheer market value of the individual recordings, whereas a miscellaneous agglomeration of records might even be ruled as an inappropriate
Introducing a speaker system with a sound so fantastic that it took a whole new theory of loudspeaker design to produce it... the Koss CM 1010 loudspeaker. It's the ultimate in 2 bandpass speakers, with an extended bandwidth response, high efficiency and incredibly low distortion that's unmatched by any other 2 bandpass speaker at any price.

To achieve such remarkable performance, Koss engineers set critical parameters for cabinet size, frequency response and efficiency. Then the computer-programmed Koss Theory furnished not only construction specifications for the woofer, tweeter, passive radiator and crossover network, but also the optimum position in the cabinet for each component to create maximum structural rigidity and optimum dispersion and phase coherency.

The result is an all-embracing quality of sound. The 10-inch passive radiator reinforces the lower 2 octaves while the special 8-inch woofer also handles midrange to 3500 Hz. With the radiator's unique alignment mass in place, the CM 1010 reproduces a maximally flat response from an $f_3$ of 35 Hz on outward. However, for more acoustic energy in the 50 to 80 Hz range, the alignment mass can be removed to create an $f_3$ of 42 Hz and a low bass ripple of 1½ dB centering on 60 Hz. The CM 1010's high-energy, 1-inch dome tweeter linked to an acoustic transformer increases the high bandpass headroom by an incredible 6 dB. With performance so superior, the CM 1010 is clearly the ultimate speaker in its price range.

For a free, color brochure of Koss CM loudspeakers, write to Fred Forbes, c/o the Koss Corporation. Or ask your Audio Dealer for a live demonstration of the Sound of Koss, and hear the Koss Theory in action. Once you've listened to the revolutionary CM 1010, you'll agree: hearing is believing.
"As revelations of Beethoven's assertively knotted genius, in the 'Appassionata' (Op. 57) and the 'Waldstein' (Op. 53), [Sherman] deftly balances headlong rushes in brilliant movements against songful contemplation in slower ones, and the two earlier sonatas (Op. 7; Op. 31, No. 2) receive similarly exciting and thoughtful performances."

— Donal Henahan, New York Times

"As revelations of Beethoven's assertively knotted genius, these performances can be ranked with such milestones as the Schnabel set... It's the freshest Beethoven sonata playing in years, and it spoils competing versions...."

— David Moran, Boston Phoenix

These magnificent performances are available only on Advent Process CR/70™ cassettes, in recordings that do them full justice. The Opus 7 and "Tempest" Sonatas are on Advent E 1057, the "Appassionata" and "Waldstein" Sonatas on Advent E 1060. For more information, please send the coupon.

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bequest to an institutional collection with well-defined limits.

The National Archives offered two evenings of films relating to music, records, and technology—sequences showing Thomas Edison, old March of Time shorts, and a print of the Toscanini OWI film from which the Internationale (which Toscanini had added, along with "The Star-Spangled Banner," to the end of Verdi's piece d'occasion) had been deleted, presumably during the McCarthy years. (The soundtrack issued by RCA, now on Victrola VICS 1331, rechanneled, is complete, however.)

Most absorbing of all were two sessions involving cylinder recordings. The British actor and collector Richard Bebb presented the fruits of his research into recordings made in 1888 by Col. George Gouraud, Edison's London representative, of numerous Victorian luminaries—a discographic detective story, absorbingly spun out by a master storyteller. The recordings themselves were often remarkably clear, and of more than sentimental interest: compelling performances by Henry Irving, Coquelin, and William Gillette, and some interesting evidence about the surprisingly close relationship between spoken English and American at that date. A publication of the Gouraud cylinders is planned by Argo.

On the final morning of the convention, Wilfred Zahn of the Deutsches Rundfunkarchiv talked about his work in transferring commercial Edison cylinders from the first decade of the present century. By careful study of the Edison equipment and discs to produce appropriate styli, and with the use of an ingenious phase-shift device to reduce surface noise, Zahn has achieved dubbings of truly spectacular clarity, virtually equivalent to the sound of early electrics. After the first orchestral selection, the audience—no amateurs, these, but people who have worked with cylinders and other early recordings—burst into spontaneous applause.

At the same session, Anthony Griffith talked about EMI's recording techniques, and particularly about those used in producing historical reissues, from which it was clear that Griffith—whose transfers are regarded as pretty consistently the best done by any major company—is a fox rather than a hedgehog: He doesn't have one big "secret method," but a whole bag of tricks that can be brought into play depending on the difficulties presented by a specific recording. Among his examples was the first stereo recording of a musical selection made with Alan Blumlein's pioneering system, the Jupiter Symphony conducted by Sir Thomas Beecham (who must be granted a special place in the history of recording, for he also, a few years later, conducted the first symphonic recording on magnetic tape).

In short, this is an organization that has much to offer, to private collectors as well as archives; even if one cannot attend the annual meetings, the publications alone are likely to be worth the modest membership dues: $10 a year, to the Executive Secretary, James B. Wright, Fine Arts Library, University of New Mexico, Albuquerque, N.M. 87131.
How to recognize the 5 most perplexing problems in high-fidelity speakers:

It is not the purchase price that gives value to an audiophile quality speaker but its ability to overcome the major problems inherent in reproducing sound. Recognize those problems, and the solution to determining a speaker’s worth becomes readily apparent.

One. Coloration: Speakers should be seen and not heard. Speaker cabinets and components can “color”—add their own tones—to a musical piece.

Two. Sonic instability: Standard alignments of woofer, mid-range and tweeter can cause orchestral musicians to seem out of place. Piano and violin solos often seem to be played by two or more instruments.

Three. Vocal passivity: No instrument is more expressive than the human voice. And none is more difficult to reproduce.

Four. Volume distortion: If it cannot reproduce music faithfully with the volume adjusted either up or down, a speaker cannot offer audiophile responsiveness.

Five. Unnatural nature: The sounds of creation are also music to the ear. A warbling bird, babbling brook or clapping hands that do not express immediacy take the very life from nature.

How to eliminate the 5 most perplexing problems in high-fidelity speakers:

The solution is RTR’s new D-Series speakers. From the Corinthian columned 300D and 600D to the curvilinear 100D bookshelf, every component is RTR designed, manufactured and assembled for problem-free performance.

True clarity and natural warmth so apparent in the D-Series starts with RTR’s new 1.5 inch soft dome midrange. This break-through system offers optimal bass response and broad dispersion while eliminating crossovers in the critical 1500-3000 Hz range. Nothing enhances, colors or subtracts from programmed material.

This same devotion to musical purity extends to the performance of the newly-stated RTR woofers and solid state super-tweeters. Throughout the system, reproduction is faithful to the human voice, musical instruments and natural sounds.

As a final triumph for the D-Series, RTR incorporates “resolved point source radiation field”—achieved by uniquely repositioning woofers, drivers and tweeters to create an almost unbelievably stable sonic image. Instruments and voices remain positioned as they were live.

Audition the 100D, 300D and 600D at your RTR dealer soon. And ask about our “Total Capability” program which means RTR not only designs and assembles all of its components but builds each as well. That’s the big difference between RTR and other manufacturers of audiophile-quality speakers. At RTR we don’t just build speakers, we build solutions.

Listen... you’ll be hearing more from RTR.
In Memoriam: G. A. Briggs

For many of us old-timers, nostalgia about our early awareness of the high fidelity phenomenon is indissolubly associated with a Yorkshireman we all knew simply as G. A. Briggs. He wrote charmingly informative books about loudspeakers and pianos and such. His lectures and live vs. recorded demonstrations were both education and entertainment. And his speakers, made by the Wharfedale Wireless Works, were among the best of their era.

Recently we came across this passage in Agnes Watts's biography of her husband Cecil (of Dust Bug fame), who later helped Briggs with his demonstrations:

"Apparently the Briggs family are nearly as mad as the Watts. When we visited their home... Mrs. Briggs... remarked that it was a pity we had not come earlier as Susan [the Watts's daughter] could have helped her milk the goats. Susan was only eight years old and looked very disappointed at the missed opportunity. So Mrs. Briggs took her outside.

We soon heard riots of laughter and suddenly Susan appeared in the drawing room with a baby piglet in her arms. It soon escaped and, to Mr. Briggs' horror, careered round and round the room, squealing like mad. Susan and Mrs. Briggs were in hot pursuit until they finally collapsed with laughter..."

It is difficult to imagine Gilbert Briggs not sharing the laughter, despite Mrs. Watts's reference to his "horror." His sly sense of the absurd was the leavening of those guises in which we knew him best. Even his sand-filled speaker enclosures—designed for the very serious purpose of suppressing all possible cabinet resonances—used to bring a little smile to those who knew. His ponderous weight made them (like his concrete and brick enclosures) so endearingly characteristic of his—well, how should we put it, "quiet flamboyance"?

G. A. Briggs had long since (1958) sold Wharfedale to the J. Arthur Rank Organisation and retired from our industry when, on January 11, at the age of 87, he died. We remember him fondly.

The Way They Used to Be . . .

On a recent visit to McIntosh Laboratory we were reminded of our interview with Jens Bang (see "The Scandinavian Thing," HF April) about what makes great high fidelity companies great. Constancy to one's vocation, he believes, is the key to achievement by corporations as by people.

As we walked through the McIntosh plants we were struck over and over by the exceptional care that is taken in the manufacture of its products and by the apparent commitment to those products on the part of workers and management alike. The open, positive, unhivelike "feel" of the factories is, as a matter of fact, similar to what we encountered at Bang & Olufsen and other Scandinavian companies.

Bang had cited McIntosh as an example of a company whose retention of the founder's name implies the continuity of vocation he was speaking of. The continuity is there, to be sure, but so is change. If the "work in progress" we were made privy to on our visit goes forward on schedule, we should have some interesting things from this source to talk about in our next "new products" article.

But whatever the company builds, it appears that the influence of Frank McIntosh (who is retired) is there, still seeing that things are built the way they used to be.

Amps that Test Themselves

For its DC-300A and D-150A amplifiers, Crown International has developed an overload-alert system that seems to be far more effective than conventional power metering or LED displays because it works off the feedback loop to indicate any disparity between input and output waveforms that causes corrective voltages in the feedback system. Thus (unlike the conventional output indicators) it needs no calibration to the actual clipping level for the load into which the amplifier is working and will respond to thermal protection circuitry, for example, which under some circumstances can be tripped before actual amplifier overload.

Crown calls the "music distortion indicator" IOC, for Input-Output Comparator, and points out that with any program source it will respond to any condition in which distortion is over the units' 0.05% spec. Even brief activity—such as during
To get a superb performance, you need a precision machine.

To command a great performance, a cassette shell and cassette tape must be engineered to the most rigorous standards. Which explains why we get so finicky about details. Consider:

Precision Molded Cassette Shells—are made by continuously monitored injection molding that virtually assures a mirror-image parallel match. That’s insurance against signal overlap or channel loss in record or playback from A to B sides. Further insurance: high impact styrene that resists temperature extremes and sudden stress.

Five-Screw Assembly—for practically guaranteed warp-free mating of the cassette halves. Then nothing—no dust or tape snags—can come between the tape and a perfect performance.

Perfectly Circular Hubs and Double Clamp System—insures there is no deviation from circularity that could result in tape tension variation producing wow and flutter and dropouts. The clamp wedges the tape to the hub with a curvature impeccably matched to the hub’s perimeter.

An Ingenious Bubble Surface Liner Sheet—commands the tape to follow a consistent running angle with gentle, fingertip-embossed cushions. Costly lubricants forestall drag, shedding, friction, edgewear, and annoying squeal. Checks channel loss and dropouts.

Head Cleaning Leader Tape—knocks off foreign matter that might interfere with superior tape performance, and prepares the heads for...

Tapered, Flanged Rollers—direct the tape from the hubs and program it against any up and down movement on its path towards the heads. Stainless steel pins minimize friction and avert wow and flutter; channel loss.

Our famous SA and AD Tape Performance—two of the finest tapes money can procure are securely housed inside our cassette shells. SA (Super Avilyn) is the tape most deck manufacturers use as their reference for the High (CrO2) bias position. And the new Normal bias AD, the tape with a hot high end, is perfect for any type of music, in any deck. And that extra lift is perfect for noise reduction tracking.

Resilient Pressure Pad and Holding System—spring-mounted felt helps maintain tape contact at dead center on the head gap. Elegant interlocking pins moor the spring to the shell, and resist lateral slipping.

In the unlikely event that any TDK cassette ever fails to perform due to a defect in materials or workmanship, simply return it to your local dealer or to TDK for a free replacement.

CIRCLE 50 ON READER-SERVICE CARD

TDK Cassettes—despite all we put into them, we don’t ask you to put out a lot for them. Visit your TDK dealer and discover how inexpensive it is to fight dropouts, level variation, channel loss, jamming, and other problems that interfere with musical enjoyment. Our full lifetime warranty* is your assurance that our machine is the machine for your machine. TDK Electronics Corp., Garden City, N.Y. 11530. Canada: Superior Electronics Ind., Ltd.

*In the unlikely event that any TDK cassette ever fails to perform due to a defect in materials or workmanship, simply return it to your local dealer or to TDK for a free replacement.

CIRCLE 50 ON READER-SERVICE CARD
transient intermodulation—in the feedback is sensed and held by the IOC’s display (a single LED on the front panel) long enough to be seen by the user.

Another nice feature of IOC is its price: $50 when ordered with either model for which it presently is available. (Some optional output displays run to at least twice the price.) It also can be retrofitted (for $60) to existing 150s and 300s, and Crown says it will include a complete checkout of the amp with the installation—which must be made at Crown’s plant.

Don’t be surprised if you see other manufacturers following Crown’s lead, which looks like a good idea to us.

A Player Organ?
A company called Mid-Continent Curios (1400 N. Walnut, Kirksville, Missouri 63501) is offering kits from which, it says, most modern electronic organs can be made self-playing. The player unit uses paper rolls like those for player pianos of the Twenties—and will, in fact, play the old rolls if you have any. The kit price of $995 includes a five-year warranty and six player rolls; a variety of finishes is available.

With mechanized organs like these, a chord may never be lost again.

New power amps from Spectro Acoustics
Spectro Acoustics' 500 Series of power amplifiers consists of a model designed for home use (500), a model designed for professional sound reinforcement (500R), and another pro model offering gain control and output monitoring (500SR). The heart of the units is what Spectro Acoustics calls the Scamp (for self-contained amplifier) module, designed to deliver 24 dBW (250 watts) in each channel. An unregulated power supply with a ±92-volt swing is said to deliver superior dynamic headroom. The price of the 500 is $695. The 500R and 500SR cost $595 and $695, respectively.

The truth is clearly seen in every Scotch® Master™ Cassette, thanks to our see-through cassette shell. You can see the unique roller guides that reduce friction by moving the tape evenly across the head. And the two radially creased shims that insure a smoother wind, improved mechanical reliability and reduced wow and flutter. Even the recorder head penetration. The sexy, see-through Master Cassette shell. It's kind of like getting the naked truth.
Guaranteed specs in inexpensive Cizek speaker

Response specifications of the Model 3, Cizek Audio Systems’ newest speaker, are guaranteed to within ±1 dB. This two-way system incorporates a crossover network designed to reduce unwanted impedance variation and to improve accuracy. Rated frequency response of the Model 3 is 42 Hz to 17 kHz, ±2 dB. Recommended minimum power is 15 watts (11 3/4 dBW), and the speaker is said to handle up to 100 watts (20 dBW) of music power. A high-frequency level control tailors treble response with respect to bass; a two-position Q switch (0.5/0.8) also is provided. The Model 3 is priced under $100.

New DBX compressor/expander

The DBX Model 155 provides four channels of noise reduction for the serious recordist. Over its rated 100-dB range, its 2:1 input compression ratio is expanded in playback by a complementary 1:2 ratio, giving a rated broadband noise reduction of more than 30 dB, plus a 10-dB increase in recorder headroom. The four channels are independent and switchable so that simultaneous two-channel encoding and decoding is possible. The 155 also may be used to play back DBX-encoded tapes from other sources. Each channel’s circuit board is changeable by the user; rack-mount kits big enough to accommodate two units are available. The DBX 155 costs less than $500.

Master I Cassette is for normal bias recording. It features an excellent dynamic range, low distortion, uniform high frequency sensitivity and output that’s 10 dB higher than standard tapes.

Master II Cassette is for chrome bias recording (70 microsecond equalization). It features a special coating that gives it a 3 dB better signal-to-noise ratio at low and high frequencies than chrome cassettes.

Master III Cassette is for ferr-chrome bias recording. It offers a 3 dB output improvement at low frequencies and 2 dB output improvement at high frequencies over chromium dioxide.

SCOTCH® RECORDING TAPE. THE TRUTH COMES OUT.
NOW THE TRAVELIN' MAN CAN SEE
GREAT CAR HIGH FIDELITY TAKE SHAPE
BEFORE HIS EYES.

For years you've been judging car high fidelity solely with your ears. Now, thanks to Sparkomatic AcoustaTrac, you can also judge car sound with your eyes!

The AcoustaTrac is a graphic equalizer which features a visual response curve on an illuminated screen.

So while you're adjusting the sound of your car's stereo radio or tape deck to your personal listening tastes, you can actually see the amplifier response you've shaped. And with Sparkomatic's AcoustaTrac you can keep track of the shape your high fidelity is in.

Of course, as a power booster the AcoustaTrac is unparalleled at boosting audio output power while giving you total control to "mix" the bass, midrange and highs.

It features slide controls that allow you wide adjust-ability of five different frequency bands. Plus 40 watt RMS stereo power, front-to-rear fader control, and a power indicator light. Compact size (2''h x 6-3/16''w x 6-1/2''d). Fits comfortably under-dash.

So if you want a graphic equalizer that lets you graphically see the beautiful sound you'll be hearing, get the Sparkomatic AcoustaTrac.

Patent Pending

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For the Travelin' Man

For our free complete Car Sound Catalog write: "For The Travelin' Man", Dept. HF, Sparkomatic Corporation, Milford, PA 18337.
Sinus introduces four speakers

Top-of-the-line Model 55M from Sinus Loudspeakers is a floor-standing, bass-reflex system rated at 4 ohms and using two 10-inch woofers, a dome midrange driver, and two dome tweeters. Crossover frequencies occur at 600 and 7,000 Hz. The 55M is said to handle 140 watts (21½ dBW) of music or 90 watts (19½ dBW) continuous input power. A four-way control allows speaker/room adaptation for the midrange and tweeter. The 55M is finished in walnut and costs $599.50. Three other speakers in the line range in price from $140 to $390.

Automatic turntable from United Audio

Model 621, Dual's latest turntable offering, is a direct-drive model with automatic start and stop. The 621 has a DC electronic motor with a digital-reference speed regulation circuit. Features include 10% pitch control range, illuminated strobe, continuous repeat, damped cueing, and antiskating. Rumble is rated at better than 70 dB, wow and flutter at less than ±0.03%. The counterbalance of the 621's tone arm contains two mechanical antiresonance filters, a feature of all Dual direct-drive turntables. The Model 621 costs under $300, with base and cover.

Biamped system from Parenthian

In Parenthian Industries' Model 3600 speaker system, frequencies from 20 to 80 Hz are handled through a separate bass driver containing amplifier and fixed equalizer. Rated system frequency response is — 3 dB, 25 Hz to 23 kHz, with a nominal impedance of 6 ohms. Power-handling capability of the satellite speakers is rated at 100 watts (20 dBW) of program; minimum recommended power is 50 watts (17 dBW). Cost of the Model 3600 is $1,799.

Kenwood adds to receiver line

The power supply in the Model KR-6030 receiver, according to Kenwood, feeds amplifier predriver and power stages through individual rectifiers for exceptional dynamic range and clarity. Improvements in the phono equalizer section also are credited with an increase in both overload headroom and signal-to-noise ratio. Power output is rated at 80 watts (19 dBW) with no more than 0.1% total harmonic distortion into 8 ohms from 20 Hz to 20 kHz. Front-panel provisions include a subsonic filter switch and a 25-microsecond FM de-emphasis switch for use with an outboard Dolby decoder. The price of the KR-6030 is $500.

Parametric equalizer from Moog

Moog's new three-band parametric equalizer is recommended for both stage and studio use. Each band (low, mid, and high) features an eight-position center-frequency selector, a WIDTH control that ranges from ¼ to four octaves, and a HEIGHT control for amplitude (±20 dB maximum). Master controls include GAIN and DRIVE (signal level through the equalizer). A STATUS (bypass) switch and other functions are indicated by LEDs. On the back panel are jacks for a footswitch, output, and input. A selector is provided for 120-volt/60-Hz or 240-volt/50-Hz line current. Frequency response is rated at ±2 dB from 30 Hz to 15 kHz and noise level at less than ~90 dBm. The Moog equalizer, which weighs 7 pounds, costs $250.
Chartwell speaker from Osawa

Osawa has introduced the latest speaker from Chartwell Electro-Acoustics' line, the Model PM-100. This bookshelf speaker uses a 1.9-inch soft-dome tweeter and 6½-inch bass/midrange driver. Crossover frequency is at 3 kHz, and frequency response is rated ± 3 dB, 50 Hz to 20 kHz. The PM-100 has a nominal impedance of 8 ohms and is said to handle up to 40 watts (16 dBW) per channel. The system is housed in a vented enclosure. Finished in teak or walnut, the PM-100 costs $300; a rosewood version is $340.

Cassette Head Demagnetizer from TDK

TDK's new Head Demagnetizer should put an end to the guesswork in degaussing your cassette machine's heads. Enclosed in a cassette body, it fits into the standard deck and makes use of the play mechanism. The manufacturer states that it takes but a few seconds to accomplish its task, and a red LED lights up when the process is complete. The unit is powered by a 1.5-volt battery and costs $20.

Environment system from Mesa

An option for the audiophile who has trouble with speaker placement is Mesa Electronics' Environ-Mesa. It consists of two Mini-Mesa 30 speakers, with drivers for high, midrange, and upper-bass frequencies, and a subwoofer containing Mesa's Bass Reciprocator design. The subwoofer is housed in a walnut-veneer coffee table. The three-piece system costs $817; the subwoofer table alone costs $599. Solid walnut and aluminum pedestals for the Mini-Mesa 30s are available at $65.50 a pair.

Switchcraft silent phone plug

For those who forget to turn down the amplifier input when plugging in a guitar, bass, or keyboard, Switchcraft offers the Silent Plug No. 172P-1. It fits into all standard instruments and can be attached to normal two- or three-conductor cable. The 172P-1 has a "plunger," which, when disconnected, shorts the input to the amplifier, eliminating the loud hums and buzzes ordinarily associated with hooking up an instrument. The Silent Plug costs $4.65.

Roland Revo sound system

Designed for use with electronic keyboard instruments, the new Model RD-150 speaker system employs multiple fixed drivers and electronic signal processing to synthesize the variations in pitch and timbre usually associated with rotating loudspeakers. Direct sound is radiated simultaneously from a large full-range driver. Bass and treble controls are provided for both direct and Revo sound, as Roland calls the effect, which is adjustable in speed and can be defeated. Reverberation also is provided, as is a characteristic resonance whose level can be adjusted in three steps. Model R-150W is enclosed in a walnut cabinet and sells for $1,150; Model RD-150L, in black leather, has castors for stage use and costs $1,050.
"The Dual 939 cassette deck at $550 is best described as 'beautiful'. It performs well, is notably easy to use ... and it has features most of us thought were impossible to get."

This quote, from a test report in Hi-Fi Stereobuyers' Guide, is hardly alone in its appreciation of the 939. For example, Radic-Electronics reported:

"Superlatively low distortion, high signal-to-noise ratios, smooth tape transport action ... fit in nicely with the very best high-fidelity component systems."

High Fidelity's measurements for flutter "suggest that the performance level may be beyond not only your ability to perceive any flutter but the lab's ability to measure it."

And this from Stereo: "Obviously loaded for bear, the 939 is one of the most feature-laden cassette decks we've encountered."

When they say "loaded for bear" here's what they mean:

The 939 reverses automatically in playback (C-90 cassettes will play 90 uninterrupted minutes). There's continuous play too. And recording is bi-directional. You never have to flip the cassette at the end of the tape.

Instead of slow-moving meter needles, there are instantaneous-reacting LED record-level indicators—twelve of them per channel. They're switchable from VU to peak reading and are visible from across the room.

Fade/edit control is another Dual exclusive. Unwanted sounds on a tape can be faded out gradually and smoothly, and the music faded back in. While you're listening, because it's all done during playback.

Still more operating features.

The list of features goes on and on. Line/microphone mixing; Dolby NR plus calibrated Dolby FM decoding; memory stop; separate output and headphone level controls; and an overload limiter that doesn't compress dynamic range.

Unique drive system and tapeheads.

The 939's drive system contains Dual's powerful Continuous-pole/synchronous motor, two capstans, and special gear drives for fast wind in both directions. (C-90 cassettes fast-wind in just over a minute, the time other decks need for C-60's.)

Hard permalloy tapeheads provide extended life and superior magnetic linearity. The four-track record/playback head switches electronically when the tape changes direction; it never shifts position. Result: perfect tape alignment in both directions at all times.

Six ways to install.

You can install the 939 for front load or tape load, plus three other angles. And you can also hang it on a wall.

One last quote.

Now you can appreciate why High Fidelity ended its report with: "We can think of no cassette deck that even approaches the 939's unique personality and range of features."

Actual resale prices are determined individually by and at the sole discretion of authorized Dual dealers.

United Audio
120 So. Columbus Ave., Mt. Vernon, NY 10553
Not exactly a household word.

Yet.

Ultralinear. It's got a nice sound to it. Still not a name on everybody's lips, but we're getting there. Fast.

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

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

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

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

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

Ultralinear 260. Our powerful 15" Disco Monitor: a dramatic 4-way floorstanding system, with our exclusive Dual Aperture Tuned Port.

For a closer look at our complete line, write for our color brochure and local dealer locations:

Ultralinear, 3228 East 50 St., Los Angeles, CA 90058.
A CONSUMER'S GUIDE

A New Era in Phono Cartridges?


Just when it seemed that fixed-coil pickups (meaning, primarily, the moving-magnet type that Shure, among others, has been making for years) were settling down to small incremental advances—whittlings of tip mass and the like—Shure has taken a radical tack that seems likely to change the way record-playing equipment will be designed in the future. While others have been looking to the makers of records, tone arms, and preamplifiers to solve the major outstanding problems of disc playing—some of which have, in a sense, been created by modern pickup design—Shure has conceived a way to make the cartridge itself the vehicle for combating most of them.

The key element in the new design is the stylus assembly and, above all, what the company calls its dynamic stabilizer. At first glance it looks like the conventional Shure hinging stylus guard, but the "guard" is fixed and beneath it is a viscous-damped member that can be swiveled down to protect the stylus and is equipped with a tiny conductive-bristle brush to ride on the record during play. As such, it accomplishes three worthy objectives: Its bristles drain off any static charge; they pick up stray dust; its damping dramatically reduces bass-resonance amplitude, not only improving warp tracking, but minimizing the tendency for warp "information" to intermodulate with the audio and muddy the sound.

A minor addition—but one that we appreciate—is an indexing line (on the dynamic stabilizer) for relatively precise cueing to individual record bands. Similarly, we appreciate Shure's new mounting system, which seems a bit easier for the fumble-fingered to manage because it dispenses with the traditional mounting nuts. More important, presumably, are such things as the new stylus shape (combining characteristics of ellipticals and CD-4 types), a further reduction in moving mass due to the different shank construction and magnetic material, and a new cantilever bearing system. It all adds up to the best pickup Shure has ever made. Its sound is smooth, flat, and clean to a degree that rivals anything on the market, at any price. Not only does it take some incontinently high recorded velocities in stride, but it is astonishingly effective in solving warp problems. If it can't make the roughest of places plane in today's roller-coaster world of superwarps, it can successfully tackle some that defy any other pickup we compared it against.

REPORT POLICY

Equipment reports are based on laboratory measurements and controlled listening tests. Unless otherwise noted, test data and measurements are obtained by CBS Technology Center, Stamford, Connecticut, a division of Columbia Broadcasting System, Inc., one of the nation's leading research organizations. The choice of equipment is made independently by the editors of All Music Guide. Manufacturers are not permitted to read reports in advance of publication, and no report, or portion thereof, may be reproduced for any purpose or in any form without written permission of the publisher. All reports should be construed as applying to the specific samples tested. Neither All Music Guide nor CBS Technology Center assumes responsibility for product performance or quality.
The lab tests prove the salient feature of the design—the dynamic stabilizer—does its job brilliantly. Normally CBS tests for arm resonance frequency alone (using the SME arm), but in this case it also measured amplitude and ran resonance tests both with and without the stabilizer—which can be snapped up out of the way to disable it, if necessary, for simplified balancing or tracking-force adjustment. The frequency shown in the table is with the stabilizer in operation, and it is of course just about ideal for the arm in question. More important, however, is that the resonance amplitude measured only 2 dB. When the stabilizer was disabled, the resonance frequency dropped to below 10 Hz and, more important, its amplitude increased to 10 dB. In other words, the stabilizer alone can be credited with upgrading the Type IV’s warp immunity from about average to superb.

The lab found the pickup could track at as low as 6 millinewtons (0.6 gram)—confirming Shure’s 0.75-gram minimum tracking-force rating. For the remaining tests, the manufacturer’s recommendation was followed: a setting of 1.5 grams (15 millinewtons), representing 1 gram of effective tracking force plus a compensation of 0.5 gram for the weight of the dynamic stabilizer (which is part of the cartridge weight during balancing but becomes self-supporting in use). Output is fairly high for a top fixed-coil pickup; channel balance is excellent. So are distortion and maximum figures, apparently confirming Shure’s claims for the hyperelliptical stylus shape and suspension. Vertical tracking angle exceeds the theoretical standard of 15 degrees (after which the V-15 presumably was named) and is a close match to the 20 degrees to which most manufacturers work today.

Lovers of other pickups—particularly the more esoteric moving-coil models costing, in some, up to twice what the V-15 Type IV does—probably will not want to abandon their favorites. While they may argue the case for this or that subtle virtue, we see no obvious ones to which the Type IV need defer. And since it has some obvious virtues of its own, it should become the pickup of choice for a great many systems owners. It arguably represents the most significant phono-cartridge innovation in many years.

CIRCLE 135 ON READER-SERVICE CARD

ALSO . . .

More equipment reports are found following the loudspeaker feature articles in this issue and in BACKBEAT.
"We have been blessed by our Maker with two ears and only one mouth, which indicates that we should listen more and talk less. This is the way we sell loudspeakers.

"The Klipschorn® is the next best thing to original sound. It's like being there, because that's the way I designed it.

"The Klipschorn loudspeaker outperforms every speaker in the world for high efficiency and low distortion, and we've tested the others in our laboratories.

"The Klipschorn loudspeaker is still made with all the care, craftsmanship and quality that I made my first one with 40 years ago. By hand.

"The Klipschorn loudspeaker is the ultimate in sound reproduction. But all my exhortations, all the specifications in the world, won't tell you what your ears can.

"This is all we ask. Listen and compare. If you don't hear the difference between Klipschorns and other speakers, you're not ready yet. "Just listen."

Please send me your FREE color brochure on the full line of Klipsch loudspeaker systems, along with a list of Klipsch dealers.

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Address __________________________

City ____________________________ State __ Zip __

Made from selected hardwood veneers.

Paul Klipsch, inventor of the Klipschorn loudspeaker.  

June 1978  

CIRCLE 23 ON READER-SERVICE CARD  

JUNE 1978  

45
Empire's Blueprint for Better Listening...

No matter what system you own, a new Empire phono cartridge is certain to improve its performance. The advantages of Empire are threefold.

One, your records will last longer. Unlike other magnetic cartridges, Empire's moving iron design allows our diamond stylus to float free of its magnets and coils. This imposes much less weight on the record surface and insures longer record life.

Two, you get better separation. The small, hollow iron armature we use allows for a lighter fit in its positioning among the poles. So, even the most minute movement is accurately reproduced to give you the space and depth of the original recording.

Three, Empire uses 4 poles, 4 coils, and 3 magnets (more than any other cartridge) for better balance and hum rejection. The end result is great listening. Audition one for yourself or write for our free brochure, 'How To Get The Most Out Of Your Records.' After you compare our performance specifications, you think you'll agree, for the money, you can't do better than Empire.

Empire Scientific Corp., Garden City, New York 11530

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**Model Specifications**

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<td><strong>DIII</strong></td>
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<td><strong>FREQUENCY RESPONSE</strong></td>
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<td>20Hz-20kHz</td>
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<tr>
<td><strong>TRACKING FORCE RANGE</strong></td>
<td>2 mil br radial</td>
<td>2 mil br radial</td>
<td>2 x 7 mil elliptical</td>
<td>2 x 7 mil elliptical</td>
<td>2 x 7 mil elliptical</td>
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<tr>
<td><strong>I M DISTORTION</strong></td>
<td>@ 3.54 cm/sec</td>
<td>@ 3.54 cm/sec</td>
<td>@ 3.54 cm/sec</td>
<td>@ 3.54 cm/sec</td>
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<tr>
<td><strong>STYLUS</strong></td>
<td>2 mil br radial</td>
<td>2 mil br radial</td>
<td>2 x 7 mil elliptical</td>
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<tr>
<td><strong>EFFECTIVE TIP MASS</strong></td>
<td>4 milligram</td>
<td>4 milligram</td>
<td>2 milligram</td>
<td>2 milligram</td>
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<td><strong>COMPLIANCE</strong></td>
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<td>30 x 10^-11 cm/dyne</td>
<td>30 x 10^-11 cm/dyne</td>
<td>30 x 10^-11 cm/dyne</td>
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<td>32 cm/sec @ 1kHz</td>
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<td>32 cm/sec @ 1kHz</td>
<td>32 cm/sec @ 1kHz</td>
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<td><strong>CHANNEL BALANCE</strong></td>
<td>within 1 dB @ 1kHz</td>
<td>within 1 dB @ 1kHz</td>
<td>within 1 dB @ 1kHz</td>
<td>within 1 dB @ 1kHz</td>
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<td>within 1 dB @ 1kHz</td>
<td>within 1 dB @ 1kHz</td>
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<tr>
<td><strong>INPUT LOAD</strong></td>
<td>100k Ohms/channel</td>
<td>100k Ohms/channel</td>
<td>4.7k Ohms/channel</td>
<td>4.7k Ohms/channel</td>
<td>4.7k Ohms/channel</td>
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<tr>
<td><strong>TOTAL CAPACITANCE</strong></td>
<td>under 100 pF/channel</td>
<td>under 100 pF/channel</td>
<td>400-500 pF/channel</td>
<td>400-500 pF/channel</td>
<td>400-500 pF/channel</td>
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<tr>
<td><strong>OUTPUT</strong></td>
<td>3 mV/channel</td>
<td>3 mV/channel</td>
<td>3 mV/channel</td>
<td>3 mV/channel</td>
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**CIRCLE 11 ON READER-SERVICE CARD**
WHEN WE ASKED the authors of the two feature articles that follow to pursue their respective subjects for this speaker issue, we intended that they be informative without necessarily being controversial. The manuscripts as presented to us, however, might almost be called a debate on the subject of loudspeaker priorities. And the divergent conclusions they reach about the importance of distortion and distortion measurements in loudspeaker systems will doubtless surprise many readers.

Both of our authors are engineers. Professor Ashley (Robert Ashley, as he is best known among his peers) teaches at the University of Colorado and has been a major force in the conversion of speaker design from "black art" to engineering. (See, for example, "Computer Technology Transforms Speaker Design," HF, October 1977.) A practitioner as well as a theoretician, he has designed speakers for Koss Corporation as a consultant. (One is, in fact, reviewed in the special section of speaker reports that follows the two articles.)

Mark Davis has written for HIGH FIDELITY before: about the future of ambience simulation, for our "2001" issue (May 1976). As a psychoacoustician, working on his doctorate at MIT, he is concerned with perception; as an engineer, he is a consultant in the fields of audio and medicine.

The Boston area is, of course, a hotbed of audio ferment these days (see "Hub City of American Audio," HF, March 1977)—as it was when, as Ashley recounts, Edgar Villchur's acoustic-suspension principle created a revolution in loudspeaker design—and Davis is part of that ferment. In the current article he presents a radical approach to loudspeaker priorities: his contention that frequency response and dispersion pattern alone define reproduction quality has potentially profound implications for the future of loudspeaker design.

By contrast, Professor Ashley may be taken as a member of the audio establishment, though his advocacy of the possibility and desirability of biamping as a "standard" approach to speaker design is radical in its way too—as Ashley himself recognizes. A salient point in his argument is the importance of distortion and of reducing it in order to take the next step in our quest for the "ultimate" speaker, an attitude obviously at odds with Davis'. The two concepts, though both are here espoused ardently by men whose expertise in the field is well recognized, are unlikely to gain easy acceptance in the audio community because they go harshly against the grain of "established" principles—namely that, on the one hand, biamping is an "expensive" and "purist" approach and that, on the other, distortion is both audible and important in loudspeakers.

Perhaps the key to the divergency lies in the fact (cited by Davis) that we still know so little about the detailed psychoacoustic mechanisms by which we hear or don't hear this or that property of the sound we listen to. That audiences at Edison's live-vs.-recorded demonstrations in the Twenties professed to hear no difference between the performers and their acoustic recordings on Diamond Discs seems incredible to us today. Perhaps further ear training by generations of equipment yet to be designed will teach us that what we know as "loudspeaker distortion" has in fact been something else all along; perhaps, conversely, we may ultimately discover that, rigorous though some of the research that Davis cites seems to be, it omits factors still unguessed at—factors that, if allowed for, would have led to different conclusions.

But it is not our purpose to offer conclusions here. Rather, we offer a forum to our two authors so that you can be privy to their thoughts. We believe you will find them provocative. And if they provoke you into writing down your thoughts (addressed to the editors—not to the authors directly), we will welcome them.
Speakers of the world, divide!
You have nothing to lose
but big power amps, crossover networks,
L-pads—and distortion.

Biamplification:
The Third Loudspeaker Revolution?
by J. R. Ashley

The course of development in loudspeakers over the half-century since the introduction of models based on the classic work of Rice and Kellogg has been largely evolutionary, but there have been two moments of discontinuity—two revolutions. Early speakers evolved along two divergent paths: Home speakers had reasonable efficiency and low prices but no better than moderate sound quality; "theater" speakers were huge, expensive, very efficient, and—though capable of better sound quality—still wanting in deep bass. Then came the demonstration that dual-channel recordings, requiring a pair of speakers, offered something that mono recordings lacked, and the stage was set for the first revolution: speakers that offered both improved sound and a reduction in size and price.

By recognizing the need for a compact speaker with good low bass—and by not being afraid to sacrifice efficiency—Edgar Villchur developed the closed-box woofer system in a 40-liter (1½-cubic-foot) cabinet with adequate efficiency (about 0.25%) for the home. His concept of "acoustic suspension" was given credit for this greatly improved performance in the technical articles of the time and in advertisements. In my opinion, a more significant reason for its success was that it forestalled hesitations over the endless possible combinations of driver Brand X with enclosure Brand Y (or, possibly, a home-brew cabinet); driver and enclosure were engineered as a single, indivisible unit. Ever since the acceptance of the AR-1, commercially and technically successful speakers have been engineered as complete systems. This abrupt change of technical direction lowered prices and, together with the advent of stereo, resulted in a vast expansion in the number of good speakers in our homes.

The second loudspeaker revolution was, again, kindled by a problem that needed solving. In 1960, A. Neville Thiele (pronounced "Teel") of EMI in Australia put a 12-inch woofer designed for a 60-liter (2-cubic-foot) closed box into a vented (bass reflex) 60-liter cabinet with the cabinet resonance tuned to the loudspeaker resonance. The boombiness of the result bothered Thiele immensely since all available theory said that a vented box ought to sound better. Fortunately, he had been working on television-receiver electronics and saw how to apply modern network synthesis theory to the "alignment" of loudspeaker systems. After a few months of theorizing and measuring, Thiele installed an 8-inch woofer in that vented box, and the new combination sounded better than the 12-inch woofer had in the closed box.

The paper describing his elegant theory was published in Australia in 1961, but for years it was ignored. Then in 1965 an industrious Ph.D. student at the University of Sydney did his research well enough to find Thiele's paper and to realize during the first reading that it had "the ring of truth."
student was Richard H. Small. Thiele took an active interest in his research, with long phone calls and visits to the university and with much personal encouragement when the going got rough. After four years of research (and a monumental dissertation), Small received his doctorate. The form in which his work reached the world was the paper Vented-Box Loudspeaker Systems, which won the publication award of the Audio Engineering Society. This work has taken all the mystery out of the design of woofers and squawkers (Paul Klipsch's name for midrange drivers) in home-entertainment systems.

Application of the theory of the Sydney school of loudspeaker design can be called the second loudspeaker revolution because it is an abrupt change from the cut-and-try methods of the past. Because of the new predictability of results, the advantages of cabinet sizes larger than 40 liters are making today's loudspeakers in the $300 to $400 price class sound sufficiently better to justify the price difference above the $150 or so of a good bookshelf speaker.

Forecasting the next loudspeaker revolution requires an understanding of consumer needs as well as an insight into areas where research, development, and possibly invention can bring about radical change. If it is to happen, a new revolution must achieve a significant audible performance improvement in loudspeakers without a significant cost increase.

**Loudspeaker Problem Areas**

Beyond the Sydney school, the remaining problems lie in four specific areas: tweeters; the integration of woofers, squawkers, and tweeters into total systems; crossover network engineering; and the integration of the loudspeaker system into the listening room. The common denominator of all but the last is distortion. And therein lies the opportunity for the audible improvement in listening quality needed to launch a revolution.

You may be a little surprised at my selection of distortion as the problem to work on. For many years, Klipsch has been virtually alone in his insistence that 5% loudspeaker distortion is not compatible with 0.1% amplifier distortion. The usual reaction has been disbelief that the 5% figure is accurate. Both our loudspeakers and our program material have inured us to the muddy sound of modulation distortion. Common recording techniques, which pass the sound through several tape recordings, yield records with distortion of several per cent even if the mixing console doesn't suffer from transient intermodulation distortion (TIM)—which (in both consoles and home equipment) is more irritating than the static intermodulation distortion that is regularly measured. When you hear a clean master tape or one of the better direct-to-disc recordings through an amplifier with low TIM and low-distortion loudspeakers, you can then hear the change in modulation distortion when the loudspeaker alone is changed. With proper selection of music sources and amplifiers, I believe that most consumers can hear differences in loudspeaker distortion.

Modulation distortion can be controlled most effectively by dividing the audio spectrum into three or four separate passbands and using a separate driver to reproduce each. If we use a woofer to carry the range between 30 and 300 Hz, a squawker between 300 and 3,000 Hz, and a good (horn) tweeter for 3,000 to 20,000 Hz, the basses will not intermodulate the flutes because they are coming out of different drivers. In other words, a three-way or four-way loudspeaker system should have less distortion than a two-way (or one-way) design.

Unfortunately, these spectrum divisions at 300 and 3,000 Hz are much easier specified than achieved. The transition between woofer and squawker, for instance, does not happen abruptly at 300 Hz; the transition is so gradual that the squawker must be designed to handle down to 150 Hz and the woofer up to 600 Hz. Crossover-network theory prescribes loading the network with pure resistors—yet every designer knows that voice-coil inductance of the woofer and the mechanical resonance of the squawker grossly violate the pure-resistance prescription. And this is only the beginning; attempts to cure one disease by applying crossover-network theory characteristically precipitate a worse ill.

Yet, with all its problems, the art of crossover
design is fairly sophisticated. For the buyer, the hidden problem is cost. In a three-way speaker, the coils, capacitors, resistors, level switches, mounting structures, and assembly labor make the cost of the crossover network only slightly less than that of the cabinet and often several times that of the woofer. In a four-way speaker, the crossover is the most expensive component of the total system.

Why Biamplification?

Expensive components can be eliminated from the crossover network if it is moved to a point in the audio system where impedance is higher and power lower than at the amplifier's output. The electronic-crossover idea—a dividing network ahead of the power amplification, plus separate amplifiers for all frequency bands "created" by the crossover—has been around for a long time, but the supposed expense of the power amplifiers required has prevented its widespread adoption. Another factor is the cost of a separate crossover, usually with multiple adjustments to tailor it to drivers of unknown properties, as opposed to one designed and built integrally with the amplification and speaker system.

Since stereo power amplifiers are readily available, the trend in professional applications (such as monitor loudspeakers in recording studios) is to use an electronic crossover and biamplification as shown in Fig. 1. In terms of cost effectiveness, this scheme of using the customary high-level network for the 3,000-Hz crossover is optimum; not enough is gained to justify using a third amplifier.

The biamplified loudspeaker of Fig. 1 will require a total of four power amplifier channels. Each of course will be less expensive than its counterpart in a typical comparable stereo receiver. Consider a system using a stereo receiver delivering 25 watts per channel into a pair of 80-liter three-way speakers. Each of these components might cost $300, for a total of $900. By saving the cost of the speakers' high-level 300-Hz crossover with its level controls, it should be possible to put the two 25-watt amplifiers into each loudspeaker for $400. Since about half the cost of the receiver is in its power amplifier, a comparable tuner-preamp should cost about $150. Thus the "equivalent" biamplified system might cost $950. I am convinced that the reduction in distortion alone should justify the $50 price increase.

Why do I believe so fervently that the method shown in Fig. 1 will significantly reduce distortion? Primarily because of the squawker's improved performance when it is driven directly from an amplifier rather than through a crossover network. Fig. 2 shows the motion of the voice coil and the acoustic output when a squawker with a system resonance of about 150 Hz is driven directly (without a crossover) by an amplifier with a high damping factor. But driven from a wide-range amplifier, this squawker would generate severe distortion because of "wasted" motion below 150 Hz.

The widely used crossover slope of 6 dB per octave normally puts a capacitor of about 100 microfarads in series with the squawker. The results are shown in Fig. 3. The response curve is up 2 dB at 150 Hz instead of being down 7 dB as predicted by the design "theory"! The effect on audio quality is not good—the amplitude modulation distortion caused by the cone displacement constituting the worst evil. While there are cures for this problem, it is (again) symptomatic of the dilemmas that confront the designer who insists on conventional crossovers.

Crossover networks do serve two vital functions. First, they control the response in the crossover region. Second, they control the motion of the drivers outside their bandpass regions. In the squawker, controlling this motion is most crucial for controlling distortion because, as shown in Fig. 4, music has a spectrum that generally is higher in magnitude at the low frequencies. If the crossover of 6 dB per octave is placed ahead of the power amplifier driving the squawker, the network reduces the low-frequency spectral components applied to the amplifier and squawker, and the high damping factor of the amplifier can control the motion correctly—as shown in Fig. 5. This situation is much closer to ideal than any reasonably priced high-level crossover scheme can be. In essence, the power amplifier now is acting as a buffer between the crossover and the driver, prevent-
ing the potentially disastrous interaction between the two.

With most of the motion problems solved by amplifier damping, we can reconsider the choice of crossover frequency. From a musical standpoint, I prefer hearing all of the treble-clef instruments coming from the squawker. A crossover frequency of 200 to 300 Hz makes this possible. (Remember that middle C is 261 Hz.) In engineering terms, this is a more reasonable region for the lower limit of the squawker's response. (Dr. Small shows that woofers and squawkers have acoustic power-handling limits that are inversely proportional to the lower cutoff frequency raised to the fourth power! The "difficulty ratio" in a 30-Hz woofer vs. a 200-Hz squawker is thus about 50,000, the woofer being much harder to engineer.)

There still is the question of the power relationship between the two amplifiers—one for the treble, one for the bass—in each channel of Fig. 1. Having found that different approaches to this question yield radically different and mutually exclusive "answers," I eventually set up the crossover problem on a general-purpose analog computer that is fast enough to solve audio problems in real time. After much work, with the help of some interested students, I found one conclusion inescapable: For biamplification, the amplifiers should be designed for equal power output, assuming equal efficiency in the drivers.

This fortuitous result showed not only that those who had used identical pairs of stereo amplifiers for biamplification had hit on an optimum engineering design, but also that in designing from scratch a manufacturer could use the same amplifier boards in the low-pass and high-pass channels to keep down both the system's price and its maintenance costs. A biamped speaker, with its much lower distortion in the crucial midrange, should cost about as much as a traditional speaker drawing on a single power amplifier.

**Fringe Benefits**

That's the basic premise, but let's examine some other advantages—and a disadvantage—in the approach. First the disadvantage. If you have a stereo receiver you like, you will not be happy about either replacing it or using only its preamp-tuner portion for biamplification. For several years many stereo receivers fortunately have been built with pre-out/main-in connections so that the control preamp can be used to drive other power amplifiers. My recommendation is that you use the receiver's amplifier section to drive extension speakers directly and the preamp section to drive the new biamped speakers.

In any event, and now that output transformers are almost a thing of the past in amplifiers (a mixed blessing), the change of either amplifier or speaker to improve sound quality should entail consideration of whether both should be replaced—especially in view of possible TIM problems in amplifiers. It is a question of the interface specifications between amplifier and speaker, which topic has created a morass of misinformation in the conventional "wisdom" of high fidelity lore.

In particular, the conventional question, "How much power will this speaker take?" betrays that the questioner really wants to know how powerful...
an amplifier would be required for some ill-defined maximum sound output. The real question is, "How much power does it need?" and the answer—which is not easy to come by via current loudspeaker specifications—depends on the intended listening environment and on musical tastes.

This question of amplifier power is a most important one, and it can be discussed intelligently only in conjunction with loudspeaker efficiency. The majority of bookshelf designs, for example, have an efficiency of 0.2 to 0.4%; larger-cabinet vented designs often run to about 1% efficiency. If both the speaker and the amplifier have low distortion, something approaching 1 acoustic watt will result in a satisfying listening level in most rooms. In terms of acoustic power, it makes no difference whether we achieve 1 watt with a 1%-efficient speaker and 100 electrical watts or with a 0.25%-efficient speaker and 400 electrical watts.

In terms of distortion, however, it probably will make a difference. To take just one example from among innumerable possible comparisons, inter-modulation distortion products in a 1%, 100-liter vented system theoretically will be about four times better than in a 0.25%, 40-liter acoustic-suspension system of equivalent low bass response. In terms of what is possible both theoretically and practically, the Sydney school has taught us that even if you paid for a damping factor of 100 in your amplifier, if the speaker design is at all shaky, the result will be a "lump" of 1 to 2 dB in the midbass and probably a 1-dB rise on the high end of the spectrum. Sure, some No. 16 wire will solve the problem—but with biamping, the problem doesn't exist. Since impedances can be kept high at the 1-volt level of typical preamp outputs (and are, even in mediocre equipment), a few ohms in the cable between the preamp and the biamped speakers do not make any difference.

In discussing the amplifiers to be used in the biamped speaker, I remarked that they could be less expensive than the ones used in stereo receivers. One reason is that the current-overload protection circuits of stereo receivers are not needed if the wiring between amplifier and speaker is not subject to careless hookup and inadvertent shorting. Locating the amplifier in the speaker box also frees it from the space limitations of tabletop or shelf placement and hence allows heat sinks with plenty of dissipating area, resulting in cooler operation and improved reliability.

Then there is the question of the unusual level-control L-pads or switches used for the squawker and tweeter of a three-way speaker. They cost far more than they are worth to the user, yet users demand them. Technically speaking, the level control used with the conventional high-level crossover network has three disadvantages: 1) The purpose of such controls is specifically to throw away expensively bought amplifier power, and the ability to handle the heat that is generated in the process is what makes these parts expensive; 2) The frequencies where the controls act are set by the crossover frequencies and not by acoustic desirability; 3) The effect is to shelve response rather than to roll it off more naturally. Tone controls are a much better way of altering response. With a biamped speaker, a circuit that works like a tone control can be added at the input for the cost of a couple of transistors and associated parts. There is no power loss in such a circuit (and no appreciable heat to be dissipated), and the response shape can be adjusted for some reasonable acoustic goal, independent of the crossover frequencies. The result is, in other words, both more useful and less expensive.

Finally, there are at least two somewhat more esoteric advantages to bi amplification. First, with the amplifier and driver in the same box, the designer can consider uninhibited use of motional feedback of the drivers. To me, the second alternative is more viable: use of crossover shapes and tricks that are not practical when the amplifier's designer has no way of telling what speakers will be used with it. Better sound at lower price should come with control over that interface between amplifier and speaker, inside the speaker box.

Perhaps I have stuck my neck out in proclaiming the third loudspeaker revolution before the second is really complete. No one can predict the success of a bi amplification revolution. But, on the assumption that the customer for high-quality audio equipment is really knowledgeable—and sensible—I'm betting on it.
Given the instrumentation and motivation, there is virtually no limit to the number of different measurements that can be made on a loudspeaker. And judging from magazines, journals, manufacturers, audio groups, gossip, and rumor, it is evident that instrumentation and motivation are in ample supply.

As Conscientious Loudspeaker Buyers, however, we are not particularly concerned about graphs and numbers. We just want to know which loudspeaker sounds best. Unfortunately, no one seems to be able to say definitively which specs are relevant to sound quality. Nor are we told how much is too much or how little is not enough. What must the measurements say if we are to be sure that the loudspeaker they represent sounds good?

A body of psychoacoustic work on loudspeakers amassed over the past few years suggests that, while the ear allows considerable margin for error in certain areas of performance, it is quite finicky about others. Specifically, there are indications that: 1) Distortion, phase coherency, and transient response have little practical significance; 2) Despite all its measurable imperfections (cone breakup, distortion, and the like), the familiar dynamic loudspeaker driver is capable of audibly “perfect” reproduction, implying that there is no need for exotic drivers; 3) The sound quality of a loudspeaker can be specified completely in terms of only two parameters—frequency response and dynamic radiation pattern.

So much for headlines. With your curiosity piqued (I trust), let’s examine some of the common measures of loudspeaker performance in light of this psychophysical data.
Frequency Response

A frequency is a "pure tone." All complex sounds are pure tones combined in certain proportions. Change the pattern of pure-tone amplitudes, and you alter the timbre of the resulting sound. Loudspeakers are not supposed to create any such alteration, of course; they should respond equally accurately to all audible frequencies (or at least give that impression), preserving the timbre of whatever is being played through them.

From both physiology and psychophysics, we know human hearing responds to frequencies as high as 15 or 20 kHz and is deaf to higher frequencies. There is therefore little reason to worry about whether a hypertweeter is flat to 30 kHz. Only your cat will care: let him get his own speakers. Below 20 kHz, we want the response to be flat, though a little imperfection in the flatness can be tolerated: Variations of 1 dB or so (about 10%) are unlikely to be detectable in normal listening.

One way to measure the frequency response of a loudspeaker is to place it in an anechoic chamber, point a calibrated microphone at it, and measure the response at the microphone output terminals. The specially constructed walls of the chamber suppress echoes that, if allowed to mix in with direct sound arriving at the microphone, would result in an erratic response representing the chamber as well as the speaker. But we don't, as a rule, listen to stereo systems in anechoic chambers; we listen in rooms whose echoes result in such erratic frequency response. Measurements like on-axis response and total radiated power represent an attempt to characterize the actual behavior of a loudspeaker in a room, but they ignore the crucial effects of echo timing and direction and are, therefore, incomplete.

We shall address this issue more fully later. For the moment, note that, once you put a speaker into a room, the multitude of echoes—each with its own direction, arrival time, and spectrum—makes the question of perceived frequency response and overall sound quality obscure at best.

Acoustic Power Output

In theory, you can always equalize a loudspeaker electronically for a flat frequency response—at least anechoically. Usually this entails considerable treble and bass boost to compensate for the losses generally encountered at the frequency extremes. In practice, there is no way you can get a convincing 32-Hz pedal note from a 1-inch transistor-radio speaker. It simply can't radiate the necessary power and will either destroy itself or distort severely if you try to force the issue. Much of the difference in sound (and cost) between a cheap speaker and a more expensive one may be attributed to the higher maximum acoustic output of the latter.

Since listening levels tend to be a matter of personal taste, and since maximum acoustic power output is not always specified, the most direct course of action for the Conscientious Loudspeaker Buyer is to audition prospective speakers before purchasing, in the intended listening room, to make sure they can play loudly enough, especially in the high treble and low bass.

Efficiency

Since both sound and electricity are forms of energy, they can be measured in the same units, watts being the appropriate choice for audio. The efficiency of a loudspeaker is the ratio of the total sound power output (acoustic watts) to the corresponding electrical power input (electrical watts). The maximum acoustic output of a symphony orchestra is on the order of one watt. To make a loudspeaker radiate that much energy (if indeed it can), you might have to drive it with, say, 100 watts or more, implying an efficiency of 1% or less. This is not an unusual figure. This means that, for every 100 watts your amplifier puts into it, 99 are just being "used" to heat your listening room.

It should come as no surprise that some expensive speakers need a less powerful amplifier for satisfactory sound levels than smaller, cheaper, less efficient speakers do. In general, horn-loaded speakers and those employing vented enclosures or passive radiators tend to be more efficient than
sealed acoustic-suspension designs. The difference between 1% and 5% efficiency is the difference between needing, say, 100 electrical watts and only 20. And that difference can substantially reduce the investment required in associated electronics.

For the shopper, the easiest test of efficiency is to try the speakers of interest first with a low-powered receiver or amplifier, even if the speakers are expensive. More amplifier power will be needed only if distortion is audible during loud passages.

Phase Shift

If the timbre of a sound depends on its frequency components, severe alterations in the relative arrival time of those components can become audible, for if a part of the spectrum is late enough in reaching the listener's ears its temporary absence will be noticed. This reasoning, correct as far as it goes, has led some manufacturers to produce a number of "phase corrected" or "time aligned" loudspeakers. In most cases, the major source of phase incoherency in conventional speakers arises from the fact that sound tends to emerge from a tweeter a little sooner than from a woofer and, because of typical speaker and listening-room geometry, travel a slightly shorter distance to the listener. The usual compensation is to move the woofer mounting a few inches forward of the tweeter's, so that the outputs from woofer and tweeter arrive simultaneously at the listener's ears.

This reasoning is predicated on the assumption that the incoherency in uncorrected speakers is audible. But while psychoacoustic evidence shows that listeners can distinguish changes in the relative phases of the components of special test signals, these signals bear little resemblance to music. In fact the signals are sufficiently odd that small changes in the position of the listener's head produce differences of timbre similar to those produced by changes of phase—an effect not normally associated with music. A normally reverberant environment makes the discrimination more difficult yet. In a recent study of the audibility of phase shift, Robert Berkovitz and Björn Edvardsen of Acoustic Research, Inc., cite data establishing that small time shifts in transient signals cannot be heard. The acousticians Patterson, Green, and Ronken have shown that special computer-generated "clicks" could not be individually distinguished by listeners unless separated by at least 2 milliseconds. Berkovitz and Edvardsen note pointedly that no evidence for time resolution smaller than 2 milliseconds in human hearing has yet been demonstrated. Since the phase disparities of conventional loudspeakers rarely if ever exceed 1 millisecond, practically all speakers may be said to have audibly perfect phase coherency.

Last year AR dramatically demonstrated the lack of importance of phase coherency (and the viability of the dynamic loudspeaker) by performing an A/B comparison of a pair of its Model 107 speakers with a live drummer. (The 107 is a three-way system employing conventional drivers capable of prodigious acoustical output and possessing a fairly flat frequency response.) The loudspeakers were fed with a recording of percussionist Neil Grover, painstakingly produced by AR's Victor Campos, which was alternated with passages performed live by Grover. Although the 107 speakers are not phase corrected, it was impossible for most listeners, seated only a few feet away, to identify reliably which was which.

Transient Response

As a concept, a transient is not very well defined, although there are particular kinds, such as the step or the impulse transients, that do have ex-
licit mathematical definitions. Broadly speaking, a transient is a signal that happens fast, but only once. Generally observed on oscilloscopes and sometimes photographed, transients are usually supposed to look "clean," without any visible ringing or overshoot.

By now it should be clear that we are concerned not with how a waveform or response looks on a scope, but only with how it sounds. Like any other signal, a transient is a collection of frequencies. In order to preserve the sound quality of a transient, the speaker should have a flat frequency response and less than 2 milliseconds of phase shift. Since the latter requirement is easily met, it follows that transient response will depend primarily on the

flatness of the frequency response. Looked at another way, a transient’s deficiencies of sound must be the manifestation of a departure from flat frequency response. Therefore, if one measures frequency response, the measurement of transient response is essentially superfluous.

Distortion

The term "distortion" usually refers to extra frequencies introduced when the output of a component such as a loudspeaker is not exactly proportional to its input. A variety of distorting processes have been isolated in loudspeakers: harmonic, intermodulation (IM), Doppler, etc. Once again, the central question is how much of the distortion produced by a loudspeaker actually is audible in music, and the answer appears to be (incredibly): virtually none of it.

Several years ago, Dr. Amar Bose devised an ingenious experiment to test for the audibility of any form of distortion produced by loudspeakers under in-use conditions. Bose noted that a loudspeaker, if played quietly enough, will produce negligible distortion. As the speaker is driven to higher levels, the distortion increases, though the frequency and phase responses do not vary. Bose capitalized on this fact to simulate a loudspeaker whose distortion could be varied without altering any other parameters.

The method, in somewhat simplified form, was to place a loudspeaker in an anechoic chamber and point a calibrated microphone at it. Taped music and speech were played through the speaker, picked up by the microphone, amplified by a preamplifier, then fed to a set of headphones in an adjoining room acoustically isolated from the anechoic chamber. A volume control adjusted the level at which the speaker played; it was coupled to a second control that varied the gain of the microphone preamp so that the louder the speaker was turned up (increasing its distortion), the lower the preamp gain was set. Thus the sound level at the headphone remained constant, and the only variation was in the amount of distortion produced by the speaker.

Subjects listened at first with the speaker control turned down so that distortion was insignificant. The control then was advanced until a change in the sound quality could be heard. Since distortion was the only parameter being varied, any change in sound quality had to be caused by the distortion exceeding the threshold of audibility. A number of listeners participated, and a variety of speakers were tried. And in each case the loudspeaker had to be driven almost to the point of destroying itself before the distortion was evident. Under any conditions that could be thought of as normal use—even quite loud normal use—listeners simply could not hear any distortion. Yet the distortion was measurable and reached several percent at times.

Last year Robert Noble, a senior at MIT, and I tried a variation of Bose’s experiment. The primary alteration in the method was the addition of an equalizer with thirty third-octave bands to adjust the speaker being tested for flat frequency response. All the phase shift, distortion, cone breakup, etc., of the speaker remained.

An A/B switch was wired ahead of the headphone amp so that the listener could alternate between the speaker (with its associated equipment)
and the direct connection to the tape deck (which completely bypassed the speaker). Effectively, we were comparing a lowly (albeit equalized) cone loudspeaker with that esteemed paragon of high fidelity, a piece of wire. We asked subjects to switch back and forth between the speaker and the wire and tell us which was which. As in Bose's experiment, the level of the signal at the listener was not varied, although trials were conducted with the speaker playing at various volume levels to gauge the effects of distortion. The results reinforced Bose's work: Listeners could reliably differentiate between the speaker and the wire only when the speaker was driven to gross distortion on very loud bass notes. Short of such extremes, it would seem that the accumulated effect of all the ills common to any conventional dynamic loudspeaker simply do not degrade its sound audibly—as long as its frequency response is flat.

The Speaker and the Room

Once we place a speaker in a regular room, we are faced with not just one version of each sound, but hundreds of echoes bouncing off the walls and furniture. The listener somehow integrates all of these echoes with the initial arrival from the loudspeaker, forming a composite conscious perception of the overall sound. Regrettably, there has been little basic research on the inner workings of echo perception. In the experiments discussed so far, the problem was avoided by using either an anechoic chamber or a headset.

Since a loudspeaker is basically a sound projector, it might seem logical that the fine details of the way in which a speaker projects its sound into a room would receive a great deal of attention. On the contrary, one generally hears only about "dispersion"—which refers simply to the breadth of the sound "spray," much like that of an adjustable garden hose. This concept ignores possibly audible effects of the wavefront's surface shape (spherical vs. planar), the possibility that the different "versions" of a sound as propagated from different parts of the speaker system are unlike in phase or spectrum, and the near certainty that these vagaries of propagation will interact with the echo pattern of the listening room and drastically affect the loudspeaker system's perceived sound quality.

At the moment, we just don't know how to tell a good echo from a bad one, so the question of what constitutes an optimal speaker design from the point of view of radiation pattern and room echoes has yet to be answered. Some initial tests indicate that dissimilar loudspeakers can be made to sound alike if their frequency responses and radiation patterns are made similar, implying that it is these two factors, together, that determine the sound quality of a loudspeaker in a room.

As an example of the effect room echoes can have on a particular characteristic of a loud-

Pages from the Notebook of a Speaker Researcher

Al Foster of the Boston Audio Society and I once spent a Sunday afternoon in my living room with a mountain of test gear, trying to make different loudspeakers sound the same. Using a calibrated microphone, real-time spectrum analyzer, pink-noise generator, and 30-band equalizer, we found we could equalize some fairly cheap speakers so as to sound very much like models costing quite a bit more (and vice versa).

One combination for which we could not obtain a good match, however, was an AR-7 (a small two-way bookshelf speaker) and an AR LST (a three-way system with multiple midrange and high-frequency drivers mounted on both the front panel and two diagonal side panels). Compared to the 7, the LST had a fundamentally different sound quality: It seemed more spacious, for one thing.

On a hunch, we wired a pair of AR-7s in parallel, placed them cat-corner atop the LST, and equalized the pair of 7s so that they had the same pink-noise response as the LST, as measured at the listening chair. Audibly, the match was excellent; the second speaker made a big difference.

Just for grins, I cranked a couple of extra dB of deep bass boost into the 7s, and lo! they sounded even better than the LST—yet they cost only a sixth as much. Foster, who owned the LST, wasn't pleased. Perhaps it assuaged his feelings to contemplate the fact that roughly $10,000 in equalizers would be needed to get the effect from the AR-7s in stereo.

On another occasion, Prof. Campbell Searle, graduate student John Bourne, and I managed to achieve a good match to a pair of Bose 901s with a synthesized four-channel system consisting of a stereo pair of bookshelf speakers at the front (placed on top of the 901s), a pair of Lexicon digital audio delay lines, and a second pair of bookshelf speakers at the sides. Levels and delay length had to be set very carefully, but once they were optimized the resemblance of the two systems was quite surprising.
speaker's sound, consider a test of imaging I got involved with a few years ago, using three bookshelf loudspeakers. The intent was to establish how “good” an image is produced by a conventional pair of speakers in a typical listening room. In the A position of an A/B switch, two of the speakers, placed in a typical stereo arrangement, were fed a monophonic music source to produce a phantom image midway between them. In the B position, the outer speakers were turned off and the third speaker, located between the first two, was turned on. Listeners were therefore comparing the phantom (A) image with the real (B) image and were asked to distinguish between them.

The test took place in a listening room of average proportions. Listeners had no trouble telling the two images apart: The phantom image sounded distinctly more spacious and diffuse. But when the test was repeated in an anechoic chamber, the listeners could hear no difference. It seems that the imperfections in imaging observed in the room were the result of echoes and not of any inherent fault in the speakers (AR-4x’s)—except perhaps for a less-than-ideal dynamic radiation pattern for the room in question.

What It All Means

If nothing else, the recent work on the psychophysics of loudspeakers indicates that there is no reason speakers should remain a black art. Given the instrumentation and the motivation, one can devise objective listening tests to establish explicit performance criteria for loudspeakers. Judging by the results already at hand, there are a number of performance yardsticks, such as distortion, phase coherency, and transient response, that exert no appreciable effect on sound quality.

While efficiency and maximum acoustic power output are relevant to the performance of a loudspeaker, its overall sound quality seems to be a function mainly of frequency response and dynamic radiation pattern. Speakers that have been made alike in these two characteristics also tend to sound alike. Although the importance of frequency response is extensively documented and accepted, the detailed effects of radiation pattern (plus room echoes) are, in the main, unexplored. It is clear that the timing, spectrum components, and arrival angles of the echoes are critically important to the sound quality perceived by the listener; both pure research and practical applications need further pursuit.

It would be very interesting, for example, to know whether a full-range electrostatic speaker can be imitated successfully with a suitably equalized array of small dynamic drivers mounted on a large flat panel. Also, what radiation patterns seem most conducive to good sound in the widest variety of rooms? Does the narrower dispersion of a pair of semiplanar (say, electrostatic) radiators result in fewer early echoes, and does that in turn lead to greater apparent clarity? Or would two pairs of bookshelf speakers placed back to back accomplish the same thing?

For the immediate future, it undoubtedly behooves you, when you're shopping for loudspeakers, to try units with differing radiation patterns and see which seem to work best at home. Remember that small aberrations in frequency response sometimes can be corrected with tone controls—or perhaps a multiband equalizer—and therefore are potentially less important than finding a particularly felicitous radiation pattern.

If current theories prove valid, we can expect more complex loudspeakers in the future, perhaps featuring phased arrays of drivers on different surfaces of the cabinet, driven by individual power amplifiers. Drive signals might be derived from an internal tapped delay line, using extensive frequency contouring and filtering as a function of timing and the angle of projection. Means may be provided for the user to suit the radiation pattern to taste, room demand, and music. An exotic possibility is some sort of control circuit (microprocessor?) to adjust the radiation pattern of the speaker automatically in response to characteristics of the music.

Regardless of what paths speaker design may take, one cardinal rule is likely to remain true: Regardless of the specifications, always let your ears have the final word.
Today's (and Tomorrow's) Loudspeakers...

New Equipment Reports: Speakers

An Internally Biamped Speaker from Advent


The freshness and sanity of thinking that has characterized Advent components is very much in evidence in its latest, the Powered Advent Loudspeaker. In one handsome and only mildly unconventional-looking package it has placed an input section that includes a switchable subsonic filter (on the back panel), a variable active equalizer for the ultradepth bass, a high frequency active equalizer, and an electronic crossover (at 1.5 kHz), plus a pair of 19 dBW (80 watt) amplifiers and a two-way loudspeaker system. There may be other goodies as well; Advent's literature hints that additional equalization tailors the driving amplifiers to the speakers. In our view, the total package should have no trouble competing with its dollar equivalent (about $1,000 for stereo) in separate speakers and amplifiers. Though biamping and self-powered speakers have not proved particularly attractive to buyers in the past, both have a great deal of theoretical appeal as solutions to problems inherent in the more conventional arrangement. (See the article by J. R. Ashley in this issue.)

What is new in Advent's design—and part of our reason for thinking it will have a better chance than some of its forebears—is the array of controls at the top of the grille. The input-sensitivity control can be adjusted for the most comfortable operating range in the volume control of the preamp driving the PAL, which should also be at approximately the optimum working level for most nonadjustable loudness controls. The PROGRAM MATERIAL control does not simply raise or lower the tweeter level by the indicated 4 dB—this range applies only at the upper extreme. Like a treble control, it hinges so that its effect decreases with frequency; it is slight (about ±1 dB maximum) at the nominal 3-kHz hinge point but continues (measurably, if not audibly) to as low as 1 kHz. The bass equalizer affects only a small range upward from just below 30 Hz (where the 0/±6 dB calibration applies), to restore punch that may be rolled off in recordings that do contain information that low.

Because so few do, it is hard to assure oneself of the influence of the control. Where we could find a difference, we generally preferred the sound with the control at maximum. At any setting, the bass is firm and tight, and the boost only gives a little extra gutsiness to bass drum and organ. (The subsonic filter on the back panel, which Advent recommends be left in the circuit for normal use, takes over immediately below the boost and rolls off steeply to suppress warp information. It does clean up the sound appreciably in some cases with warped discs played through a preamp having no subsonic filter.)

From this deep bass range up to beyond 15 kHz the sound is exceptionally smooth and flat. Advent suggests that the speakers be placed against the wall (allowing enough clearance for good ventilation of the heat sinks at the back) and away from room corners. The advice is well taken. In the center of the room, some deep bass is lost; in a corner it loses some of its attractive tightness. In the FLAT position of the high frequency equalizer the sound is rather overbright with a tendency to make violins, in particular, sound rather steely. A setting of −2 or −3 dB alleviates this tendency; the maximum treble cut setting takes some immediacy out of the sound. So in our room, −3 in the treble and +6 in the deep bass have become our "standard" settings with the speakers near the wall but angled in toward the listening area.

And with that setup the stereo image often is uncanny in depth and in lateral resolution. The Nexus percussion record (Umbrella UMB DD2), for example, is astonishing in its realism. Opera recordings often create a stage right in the living space...
room (though careless use of multiple-mike techniques is then mercilessly exposed by the Advents). The impression is one of exceptional accuracy—both in the stereo and in the sound itself.

The accuracy isn't absolute, of course. The tendency toward brightness in the upper range emphasizes the clangor-ousness of the upper half of the piano keyboard, divorcing it slightly from the richness with which the lower half is reproduced. Sopranos tend to pick up a blurred sound when they approach the crossover region. But the overall sound of the PAL is outstanding nonetheless.

In the lab, the performance couldn't be documented in the usual way because of the indissoluble union between electronics and drivers. Even if it would make sense to document such parameters as output power and speaker impedance in a product that has pre-empted these considerations, the connections at which they would have to be measured are inaccessible. So the lab chose as its reference (to replace the usual, but unmeasurable, 0 dBW from the amp) an on-axis sound pressure level of 94 dB at 300 Hz.

Sensitivity was difficult to measure because the control is a continuous-acting pot without click stops or other means of setting it "dead on" the calibration points. The reference 94 dB SPL was achieved with an input of roughly 0.2 volt into the 1-VOLT setting; voltages at the other settings were, as nearly as could be measured, proportional. The minimum setting—short of that marked as infinity, and therefore "full off"—could be driven to 94 dB with 10 volts of input.

The average omnidirectional curve—again taken at 94 dB SPL—is extremely flat (only a hair over ±2 1/4 dB from 63 Hz to 10 kHz), with a slight, broad rise centered around 2.5 kHz and a gradual rolloff above. Comparison of this curve with that measured on axis suggests some beaminess toward the upper extreme, but it eluded detection in our listening tests.

Harmonic distortion didn't measure as low as we might have assumed from the subjectively clean sound, though it surely is germane that the second harmonic predominates over the more annoying third. At 94 dB SPL, the figures generally run below 1% above 6 kHz, exceeding 2% somewhat between 80 and 300 Hz and rising steeply again below 40 Hz. The tone-burst photo at 3 kHz shows considerable overhang. At 100 dB SPL, distortion rises to about 3% in the crossover region (though it is generally below 1% above that) and again below 400 Hz, and it hovers around 5% in the bass. At 300 Hz it did not reach 10% (the normal limit of testing) until the lab drove the speaker to 110 1/2 dB SPL (with 4 volts of input and the sensitivity set at 3 volts).

That figure suggests—correctly—that the speaker has an excellent dynamic range. In fact, its sound is sufficiently clean and natural that we found ourselves cranking up the volume somewhat more than usual in our listening tests, and the PAL never complained. Nor did it even blink its OVERLOAD light, which comes on when the protective relay opens in response to excessive drive (or a malfunction of the turn-on cycle). In fact—if Advent will permit the acronym for its rather austerely named product—we found it a Pal indeed.

A Three-Piece Stereo System in the JBL Tradition

JBL Model L-212 stereo loudspeaker system, including two floor-standing midbass/treble units with fabric finish and wood bases and powered single-channel subwoofer commode in wood cabinet with glass top. Dimensions: 16 by 38 1/2 inches (front), 13 inches deep at base (1 unit for each side); subwoofer commode, 18 1/2 inches square (top), 19 1/4 inches high. Price: $1,740. Warranty: "limited," five years parts and labor. Manufacturer: James B. Lansing Sound, Inc., 8500 Balboa Blvd., Northridge, Calif. 91329.

The bold appearance of the L-212 immediately proclaims it as a JBL: Stylistically as well as sonically it is the latest in a grand tradition of craftsmanly innovation. The thin side speakers—which carry all but the frequencies below 70 Hz—rise from
contoured bases that both give them stability and "lead" the sound from the vertical front panel to the floor plane. Behind the snapoff wraparound grille, each unit contains an 8-inch woofer, a 5-inch midrange driver, a 1-inch domed tweeter, and the controls for PRESENCE (midrange) and BRILLIANCE (tweeter). The 12-inch sub-woofer in the so-called Ultrabass commode is fed—via the built-in "energizer" amplifier—by the signals for both channels and reproduces their sum. JBL has chosen the 70-Hz crossover on the basis of listening tests whose results indicate that the ability to localize sound sources ceases at this point; the Ultrabass can be set anywhere as long as its distance from the listening area is approximatively the same as that of the other speakers.

Hookup is, of course, a little more complicated than usual. The high input impedance of the Ultrabass amplifier permits use of relatively thin wire (a possible cosmetic advantage) to it, but JBL recommends ordinary lamp cord as a minimum gauge—and only in lengths up to 50 feet—on any line that will handle signals destined for the side speakers, which must be paralleled with the Ultrabass inputs at some point. (The manual shows four hookup options.) The connections (two per channel per unit—meaning a total of four on the Ultrabass) are made via handy twist-to-lock connectors designed for use with bare wires. Those on the side speakers are recessed so deeply in their bases (at the bottom level of the grille) that they are hard to see and awkward to use.

But a little fuss over hookup logistics is quickly assuaged once the complete system is turned on. It has a sound that might be called luxuriously expansive. The very deep bass is as firm and clean as one would expect in a subwoofer system; the remainder is exceptionally clean and well detailed; the stereo is open and spacious. The imaging is rather diffuse, with a strong sense of ambience that is often attractive in large orchestral music; it can be too, in smaller forms such as chamber music, though by contrast with speakers that create more unequivocal placements the feeling is less of moving the musicians into one's listening room than of moving the listener into their reverberant space.

Perhaps the L-212's emphasis on the lower midrange, which gives the sound a slightly hollow quality compared with speakers that measure flatter in the anechoic chamber, contributes to this impression. The emphasis does lend richness to the sound, though its influence on male voices in particular is not entirely natural-sounding. But balanced against this tendency is the absence of any false brightness in the midrange; female voices are superbly natural.

The bases on which the side speakers are mounted prevent placing them flush against a wall; since they are always "free-standing," they offer fewer room-placement options than many speakers do and therefore somewhat less possibility of gross misplacement. Most of our listening was done with the units about three feet from the wall and angled toward the listening area (an arrangement specifically suggested in the owner's manual). The Ultrabass was put about midway between them simply for ease in hookup; JBL says—and we agree—that lateral position is unimportant and that the mode need only be kept approximately in the plane of the side units. For rooms in which the latter dictum can't be met for practical reasons, JBL has included a phase-reversal switch on the Ultrabass (next to its on/off switch, behind the grille cloth) to match its phase in the crossover region to that of the side speakers, as perceived in the listening area.

We tried various settings of the PRESENCE and BRILLIANCE controls on the side units. They are continuous-acting rotary controls calibrated from 1 to 10. JBL suggests that you start at the midpoints and make changes as your ear dictates. With our setup we selected the 10 position for PRESENCE and 8 for BRILLIANCE and did most of our listening at these settings.

The lab measured the side speakers in the normal way; it could not do so with the Ultrabass because of its built-in amp, and the response curve shows its output adjusted to match that of the speakers in the anechoic chamber. Since even in the anechoic chamber this adjustment didn't use up the total range of about 25 dB between maximum and minimum gain in the Ultrabass amp, there should be no difficulty in balancing it to the rest of the system in normal rooms.

Though the curves (which are limited to frequencies above the anechoic chamber's rating of approximately 60 Hz) don't show the fact, Ultrabass output measured essentially flat from the 70-Hz crossover down to 30 Hz, with a steep rolloff below. The side speakers, with both controls set at their midpoints, have a broad emphasis around 200 Hz, with a very gradual slope above 1 kHz and some emphasis at the extreme top. The PRESENCE control does not reduce the 200-Hz "mound," but it does fill in the response "sag" around 2 kHz when you turn it up. The anechoic measurements also show that, in their minimum positions, both controls produce extreme results that we would not expect most users to find helpful. The curves attest to the system's excellent dispersion, which our listening confirmed.

Impedance of the side units is well controlled, averaging about 10 ohms over most of the range, though at bass resonance (75 Hz it rises to about 25 ohms). JBL's 8-ohm rating is certainly reasonable, and it should be possible to run paralleled L-212s from typical amplifiers with no problems—not that we can imagine many users expecting to do so.

Efficiency of the system is moderate. In both the 300-Hz continuous-tone (0-dBW) and pulse tests, the speaker gave

<table>
<thead>
<tr>
<th>Frequency in Hz</th>
<th>Average omnidirectional response</th>
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<tbody>
<tr>
<td>4 kHz</td>
<td>84 dB SPL for 0 dBW (1 watt) input</td>
</tr>
<tr>
<td>2 kHz</td>
<td>111 dB SPL for 20 dBW (100 watts) input</td>
</tr>
<tr>
<td>1 kHz</td>
<td>118 dB SPL for 27 1/4 dBW (529 watts) peak</td>
</tr>
<tr>
<td>0 Hz</td>
<td>&quot;Nominal&quot; impedance 6.8 ohms at 250 Hz</td>
</tr>
</tbody>
</table>

Approximate PRESENCE control range (re "flat")
+1 1/2, -5 dB, 800 Hz to 4 kHz
Approximate BRILLIANCE control range (re "flat")
+3, -6 dB, 2.5 to 7 kHz
+3, -20 dB, 10 to 15 kHz

<table>
<thead>
<tr>
<th>ANECHOIC RESPONSE CHARACTERISTICS (1 watt input)</th>
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<tr>
<td>Ultrapass unit</td>
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<tr>
<td>Ultrapass sound</td>
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JBL L-212 Speaker System
no signs of undue strain, though the power levels are well beyond JBL's 75-watt capacity rating. At 3 kHz, however, the pulse photo shows considerable hangover. Harmonic distortion measurements are generally under 0.5% above 150 Hz, even at the higher input-power level (what is needed to deliver 100 dB SPL at 300 Hz). The second harmonic content stays at this level down to the 70-Hz crossover: the third rises rapidly below 150 Hz and at 70 Hz is about 3% for the 0-dBW input and over 5% at the higher input.

Those who take their sonic chauvinisms seriously will doubtless see the L-212's midrange emphasis as an embodiment of "West Coast Sound"—for good or ill. We can only plead the case of the open ear, which requires listening with an open mind. And while we are not so naive as to assume that any loudspeaker could ever satisfy all ears, however open, we think the unprejudiced will have to agree that this is an exceptional system.

CIRCLE 134 ON READER-SERVICE CARD

**Big Sound**

from Top Koss

Dynamic


Headphones and loudspeakers have the same basic function, yet surprisingly few headphone manufacturers offer loudspeakers and vice versa (leaving aside the nonspecialist companies that offer just about everything). A notable exception is Koss—the "headphone company" that has offered electrostatic speakers for some time and recently introduced the all-dynamic CM Series (designed, incidentally, by J. R. Ashley, author of the article on biamplification in this issue).

The CM-1030 is the top model in that series, and it seems like a winner to us. It's a four-way system (Koss prefers to call it a four-bandpass system) whose design has been computer-assisted to optimize performance. This solid, floor standing speaker is well finished in pecan veneer and sports inset brass handles to facilitate hefting its considerable mass into place. The corners are rounded, and the brown-knit fabric grille can be removed to reveal the drivers and level controls. Connection is made at the back via color-coded, slotted screw terminals that work best with stranded wire.

According to Koss, the 10-inch, mass-loaded woofer is matched to the dual-port enclosure to provide a cutoff point (~3 dB) of 29 Hz. A quasi-second-order crossover (with a slope of 6 dB per octave) at 300 Hz gradually shifts the signal to a pair of 4½-inch midrange drivers. Crossover to the 1-inch tweeter (Koss calls it a "treble" driver) is much more rapid (18 dB per octave, at 2.5 kHz. The supertweeter ("tweeter") comes in above 7 kHz at a crossover slope of 6 dB per octave. Each tweeter is fitted with an "acoustic transformer" for added dynamic headroom.

The efficiency of this carefully matched system is exceptionally high, and the CM-1030 can produce realistic sound levels with amplifiers of modest means. With a high-powered amp, it will deliver ear-splitting levels and do so cleanly. The distortion with a 0-dBW (1-watt) input is exceptionally low: generally less than 1% over most of the woofer range and reaching only 2.75% at 30 Hz. Even without taking the speaker's efficiency into account, this is right up with the best "0-dBW distortion" figures we've seen. When you consider that a healthy sound pressure level is achieved with this input, you could call the performance extraordinary. The midrange and tweeter distortion is even lower: less than 0.5% at the 0-dBW level. At the 100-dB SPL power level at 300 Hz, the distortion still is less than 1% except at the lowest frequencies—3.25% distortion is generated at 50 Hz and 4.5% at 30 Hz. As perspective, few loudspeakers can get down to 50 Hz (much less to 30 Hz) at this power level without greater than 10% distortion.
In the test for continuous input power, 114 dB SPL was achieved at 300 Hz without strain. With pulses, CBS measured an almost uncanny 123½ dB peak sound pressure level at the limit of its amplifier—at that point supplying almost 1 kilowatt on the peaks—and still with no sign of strain in the speaker. Be assured that, if you have the inclination and the power amp, the CM-1030 can be driven to the threshold of discomfort. It is the only speaker we can remember that achieves such a dynamic range.

With the exception of the twin bass peaks characteristic of vented enclosures, the impedance curve is exceptionally smooth over the audio band. From 65 Hz to 20 kHz it never exceeds 6.5 ohms nor falls below 3.5 ohms. On average, it’s close to the 5 ohms that Koss specifies. Obviously pairs of CM-1030s should not be wired in parallel, but a single set should present a fine load to a stereo power amp. There is a modest ringing on 3-kHz tone bursts (near the midrange/tweeter crossover) and a very slight hangover on the 300-Hz bursts (at the woofer/midrange crossover frequency).

With the driver level controls set in the FLAT position, the average omnidirectional response in the anechoic chamber is very extended. Excluding a 5½-dB hump in the octave and a half centered on 315 Hz, and a 2-dB peak at 63 Hz, the response is within ±1½ dB from 50 Hz to 10 kHz and is down about 3 dB at 32 Hz and at 13 kHz. Comparison of the three response curves taken at CBS indicates excellent high-frequency dispersion.

In the listening room as well, the CM-1030 is a sterling performer. It reproduces virtually anything with realism. If we were forced to single out one particular attribute, we’d earmark the brass reproduction—it is fantastically good. In general, the high end is very brilliant. (Some might find it too much so, especially on records with inherent distortion.) Herein lies one of the few spots where we would take issue with the system’s design. While the TWEETER switch is useful in cutting the very high end by a few dB in a “hard room,” the TREBLE has too great an audible effect for our taste when it’s brought into play. We prefer to touch up by using preamp tone controls.

The bass response is extended and floor-shaking in power. It’s quite tight, and cone motion is controlled very well. Placement of the speakers (and probably room size as well) can affect the bass—it can take on some heaviness. But it is richly sonorous, and powerfully appealing on organ though somewhat less so on piano, whose attack in the lower registers seems a bit delayed. The stereo imaging is good laterally, a bit less so in depth.

The CM-1030 proves about equally at home with the classics, rock, and jazz. Fans of the last two genres will especially appreciate its solid bass and ability to reproduce cleanly the “nasty” reed sounds. And with its extraordinary dynamic range and efficiency, this model should satisfy anyone’s desire for sheer quantity of sound. It’s a loudspeaker that demands attention. It grabs you, and it holds you.

**Koss CM-1030 Speaker System**

- **Average omnidirectional output**, 250 Hz to 6 kHz
  - 86½ dB SPL for 0 dBW (1 watt) input
- **Continuous on-axis output** at 300 Hz
  - 114 dB SPL for 20 dBW (100 watts) input
- **Pulsed output at 300 Hz**
  - 123½ dB SPL for 30 dBW (973 watts) peak
- **Nominal** impedance: 3.7 ohms at 110 Hz
- **Approximate MIDFREQUENCY control range (re “flat”)**
  - +1½, -3½ dB, 300 Hz to 1.5 kHz
- **Approximate TREBLE control range (re “flat”)**
  - +1, -3 dB, 2.6 to 9 kHz
- **Approximate TWEETER control range (re “flat”)**
  - +2, -3 dB, 10 to 17 kHz

**J. Arthur Rank Presents:**

**Time-Delay Compensated Speakers**

**Leak Model 3050 loudspeaker system in oiled walnut cabinet**
- Dimensions: 11¼ by 25¼ inches (front), 11¼ inches deep plus grille
- Price: $355
- Warranty: “limited,” five years parts and labor

Rank Hi-Fi has a novel approach in differentiating between its two loudspeaker lines: Its Wharfedales are high-efficiency ported systems, while its Leaks use sealed enclosures that are lower in efficiency. Both are old names in the industry, of course, and enjoy enviable reputations. The Leak 3050 is a Time-Delay Compensated loudspeaker.
When you listen to the Leak 3050, you find that adjusting its
tonal balance—if you think it needs it—is a matter of juggling
speaker placement and tone controls; there is no built-in
tweeter control. Placement affects bass response considera-
ably. On the floor but relatively far from side and rear walls, the
3050 radiates bass that is tight and fairly smooth but a bit
weak. With its back to the wall but still far from either corner
of the room, its apparent bass is considerably augmented if
not quite so smooth and tight. We preferred this placement. It
also provides a better center image than the “island” place-
ment and a stereo perspective of good depth. (The image
depth is even better when the speakers are not against the
wall, however.)

As with the majority of two-way systems, the Leak 3050
does not possess quite the openness of a three-way of com-
parable quality. But the transient response is very good and
the high end quite bright: Brass instruments are reproduced
particularly well. The irregularities in response tend to empha-
size record surface noise and add a coloration we noticed
most readily on solo piano and violin. The midrange is a bit
withdrawn and can do with a little boost.

The motion of the woofer cones is well controlled despite
their small size, and we noted no problems with warped rec-
ords. With efficiency so low, we must take exception to Leak’s
recommended minimum-power requirement of 12 watts
(10 1/2 dBW). At that level, the 3050 won’t begin to show its
mettle. And while Leak recommends no more than 60 watts
(17 1/2 dBW), on some organ passages we used upwards of 20
dBW (100 watts) with audibly good results.

Though it is a power-hungry speaker, the Leak 3050
doesn’t appear to present undue hardship to an amplifier.
With an amp of modest capability, this unit is best suited for a
fairly small room. But feed it well, experiment with placement
and a bit of midrange boost, and it will blossom forth in larger
environments.

### Leak Model 3050 Speaker System

| Average omnidirectional output, 250 Hz to 6 kHz: 77 1/2 dB SPL for 0 dBW (1 watt) input |
| Continuous on-axis output at 300 Hz: 106 1/2 dB SPL for 20 dBW (100 watts) input |
| Pulsed output at 300 Hz: 113 1/2 dB SPL for 27 dBW (500 watts) peak |
| "Nominal" impedance: 7.2 ohms at 145 Hz |

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as are its cousins in the 3000 series. This two-way system uses
a pair of 170-mm (approximately 6 1/2-inch) bass/midrange
drivers and a 19-mm (3/4-inch) dome tweeter that is stepped
back from the lower-frequency drivers to compensate for the
difference in time delay. Crossover between the drivers occurs
at 4 kHz, and a very steep (18 dB per octave) low-pass filter
removes the higher frequencies from the woofers. The paired
small bass drivers provide almost the same bass-radiating
cone area as a single 10-inch woofer, plus the better midrange
dispersion of a smaller driver.

The 3050, specified as an 8-ohm system, is one of the rare
birds that truly earn that rating. On average, the impedance
appears to be closer to 10 ohms. It never falls below the 7.2-

ohm "nominal" nor rises above 20.8 ohms, so the load on the
amplifier stays fairly uniform across the frequency band.
We’d have no qualms about paralleling a pair of Leak 3050s
on normal amplifiers.

As measured in the anechoic chamber at the CBS Tech-
nology Center, the front-hemisphere and average-omnidi-
rectional response curves track each other quite well, and the
response remains within ± 4 1/4 dB from below 60 Hz to 16
kHz. Comparison of these curves with the on-axis response
curve suggests some beaming in the high-frequency region
(above 8 kHz). While the total range of variation in the re-
spoonse curves is quite small, they exhibit several peaks and
valleys of the sort that often add coloration to the sound.

Harmonic distortion is low at the 0-dBW input level—less
than 0.5% from 100 Hz to 8 kHz, rising to 3% at 10 kHz and at
50 Hz. At higher power levels (sufficient to generate 100 dB
SPL at 1 meter at 300 Hz), the distortion level is still satisfac-
tory: generally less than 1.5% from 100 Hz to 8 kHz. The dis-
tortion components are about equally split between the sec-
don and third harmonics with the second generally slightly
greater than the third.

Efficiency is distinctly below average, but the 3050 will
gladly accept power and remains relatively clean in the 20-
dBW (100-watt) test at 300 Hz. On pulses, no evidence of dis-
tress occurred at 5 times that power (27 dBW), where the test
amplifier ran out of steam before the speaker. The waveform
of the 300-Hz tone bursts is well reproduced; that at 3 kHz
(close to the crossover) shows considerable ringing.
Good Value in
"Controlled Impedance"
Speaker


Scott's speaker line pivots about the S-186, with several less expensive models and several more expensive models. If the entire line can acquit itself as eloquently as the S-186 does—for its price class—in the anechoic chamber, it is impressive indeed. This "middle model" is a three-way acoustic-suspension system with a 10-inch woofer, 5-inch cone midrange, and 1-inch Mylar-dome tweeter. The crossover points are at 800 Hz and 4 kHz.

Scott's "controlled impedance" loudspeakers are designed to minimize the variation, with frequency, in the load imposed on the driving amplifier and hence elicit best performance from it. The company rates this model at 6 to 8 ohms, and the lab data bear out the claim. The maximum impedance—in this case 22.5 ohms—occurs at the system's resonant frequency (56 Hz). The minimum impedance is 6.32 ohms (at 125 Hz), and the average over most of the band is a bit over 8. Paralleling pairs of S-186s should be safe for most amplifiers.

The three frequency-response curves taken in the CBS anechoic chamber track each other quite well, indicating good dispersion characteristics for the speaker. They are also exemplary in their smoothness: ±3 dB from below 63 Hz to 16 kHz, measured omnidirectionally. The only anomalies of any note are a slight prominence at just above 1 kHz and a slight depression around 6.3 kHz. Tone bursts are very well reproduced at both 300 and 3,000 Hz.

At the 0-dBW (1-watt) level, the distortion is very low for such a small system—generally less than 0.75% at frequencies above 60 Hz, 1.5% at 50 Hz, and 3.75% at 30 Hz. Over much of the band the distortion hovers around a mere 0.25%. The efficiency is in the average range for sealed systems, meaning that it is lower than that of most vented ones and that its output in the 0-dBW test therefore is lower.

At substantially higher power levels (100 dB SPL at 300 Hz), the distortion rises but, in general, doesn't exceed the 1% mark at frequencies above 500 Hz. It averages 3.5% between 70 and 200 Hz and climbs to 6.5% at 50 Hz. The 10% THD mark is not exceeded until 30 Hz. The woofer of the S-186 accepts the continuous 20-dBW (100-watt) input—about 2 dB above Scott's 60-watt maximum power rating—at 300 Hz, and produces 110½-dB SPL, with less than 10% distortion. On pulses, it accepts the maximum peak output of the lab amp without misbehavior.

Many room placement options are open, with a relatively small system such as this, to tailor the bass response. We like the system best with its back against the wall and approximately at ear level. This position provides the smoothest, tightest bass and the most transparent midrange and treble. With the S-186 standing on the floor against the wall, bass response is more powerful but less smooth and tight. Although placement out into the room elicits bass characteristics similar to those at midwall, the upper drivers may not clear furniture level with the speaker on the floor. In our listening room, the tonal balance is best with both controls at FLAT. The WOOFER-MIDRANGE switch has only a subtle effect on the sound; the TWEETER is much more forceful.

The S-186 is basically an honest speaker. The low-frequency response is adequate to give a plausible rendition of
The recent change in price does not alter our judgment that the ST-9030 is, in essence, a supertuner at a (relatively) budget price.

Technics ST-9030 FM tuner (February 1978): In your evaluation of our ST-9030 FM tuner there are a couple of points that warrant further comment. First, the suggested retail price has now risen somewhat to $449.95.

We have mixed feelings about some small deviation in such readings as the normally measured signal-to-noise ratio and the flatness of audio response down to 20 Hz, but it is clear that these matters have not bothered you (and will not bother most readers) as much as us. Nevertheless, we'd like potential purchasers to know that production units are more likely to exceed claimed specifications (as your ST-9030 did in most cases) rather than undershoot any, even negligibly.

A bit more serious is the set of distortion readings you obtained in the narrow band mode. You state that "the lab had to introduce an interfering signal to keep the tuner in its narrow mode for the appropriate measurements." Actually a simple invasion of the circuit with a shorting bar would have accomplished the same end better, though we cannot fault the chosen procedure. Not only was the lab working without benefit of a circuit schematic, but it may have considered any invasion to constitute unauthorized circuit modification. In reality, the invading signal itself constitutes a great invasion. A signal that interferes enough to force the tuner into its narrow-band mode is automatically one that will induce in-band distortion well beyond the inherent distortion of the design.

You might argue that this induced distortion legitimately belongs in the reading, because users experience narrow-band operation only when it is present. But such logic overlooks an important point: Your finding is the reference readers will use to compare tuners in advance of measurement (as your test method had to be different in any event) to maintain our "non-interventionist" policy. The point is that, even in the presence of the extraordinary interfering signal, the tuner performed so well.

The recent change in price does not alter our judgment that the ST-9030 is, in essence, a supertuner at a (relatively) budget price.
Before Sound Guard, you only played a record in mint condition once.

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LEOŠ JANÁČEK’S CAREER must be one of the strangest in the history of music. By the time of his first real success as a composer—the 1904 premiere of the opera Jenůfa (begun in the mid-1890s) in Brno, the Moravian capital, given what might be described as a semiprofessional performance—he was already fifty. But Jenůfa did not reach Prague until 1916, when Janáček was sixty-two, and until then he remained a relatively minor figure even within Czechoslovakia. Suddenly, after the Prague success of Jenůfa, everything coalesced for him. In the final twelve years of his life he produced a miraculous stream of works in a wide range of forms—operas, symphonic and choral works, chamber music—and at least ten of them are now acknowledged masterworks.

Janáček was born July 3, 1854, the ninth of fourteen children of a schoolmaster in Hukvaldy, near what is now the border between Czechoslovakia and Poland. His father, an amateur musician, encouraged the boy’s musical talents, and he studied in Prague, Leipzig, and Vienna before settling in Brno, where he was appointed director of the newly formed school of music. He married in 1881, and by the time of the Jenůfa premiere he had suffered the deaths of two children, a two-year-old son in 1890 and his beloved twenty-one-year-old daughter in 1903, and the effective end of his marriage emotionally.

He had been composing since the mid-1870s and had produced perhaps three or four works that could be considered individual and important, but even these lay largely unplayed. He continued to compose, however, and eventually the rising tide of Czechoslovak nationalism brought Jenůfa—hailed in Brno as “a true Moravian opera”—to Prague. This was the turning point, even though the First World War confined his success to Central Europe.

What produced the unparalleled flowering that followed? To a large extent, such psychic releases are unexplainable, but two factors seem paramount. One was the freeing of Janáček’s native

Fifty years after Leoš Janáček’s death, successful new stagings and recordings of his operas seem likely to win fresh converts to his remarkable music.
land from Austro-Hungarian domination and the postwar creation of an independent Czechoslovakia. Always an ardent patriot, he had treated nationalist themes in music, and because of his commitment the resulting compositions go far beyond the usual celebratory anthems or set-pieces provoked by such political developments.

The second, and more significant, factor was personal. In 1917, Janáček fell deeply in love with a twenty-five-year-old married woman, Kamila Stösslová. Most of the works that followed were written with her in mind, and the rejuvenation apparent in all of them is a reflection of his passion for her.

It has been said that Janáček could not write abstract music, that each of his works, instrumental as well as vocal, has a theme and extramusical story or point of reference. This is probably an overstatement, but he apparently did need an extramusical impetus to stimulate his creativity. Several of his instrumental works—notably the two quartets and the chamber sextet Mládi (Youth)—have detailed “programs” that have been partly deciphered but contain other references that are lost.

That last point suggests one obstacle to a rounded appreciation of Janáček: the haphazard nature of the supporting scholarship. A systematic critical edition of his works is badly needed. Little study has been done of the compositions before 1900 (I suspect that he wrote and destroyed a good number and that other scores exist in unfinished states), and the operas have many thorny spots, owing to a variety of “improvements” from hands other than the composer’s. Many tantalizing leads are as yet unexplored in Janáček study—such as the opera based on Anna Karenina that he abandoned—and even a pivotal work like the cantata Amarus (1898), which has been termed the real beginning of his late style, has only recently been recorded.

Judging by what is available on recordings, the works before 1900, while pleasant enough, are with one exception hardly memorable. That exception is the Lachian Dances (1889–90) for orchestra. Miles removed musically from Dvořák’s Slavonic Dances, its probable inspiration, this collection of folk dances reveals a good deal of the late Janáček style. The employment of short and punchy themes, characteristic of the music of the Lach district that surrounds Hukvaldy, is endemic to his later music-making, and his attachment to folk music and the attendant patriotic associations are strongly in evidence.

Every writer on Janáček has reiterated the importance to his music of the rhythms and patterns of speech, dialect, folksong, and even the patterns of birdsong and animal sounds. The translation into music of what has been called the earth’s "soundscape" was one manifestation of his love of nature—a love also mirrored in his musical evocations of summer nights, winter mornings, and the varying moods of the forest.

These general characteristics of Janáček’s compositional makeup are clearly seen in the operas that involve nature—Jenůfa, The Cunning Little Vixen, Kátěa Kabanova, From the House of the Dead—and are present to some extent in his atmospheric piano suites, such as In the Mist (1912) and On an Overgrown Path (1902–8). Yet the piano music, in its submergence of what we consider “Janáček style” to a more impressionistic format, is somewhat atypical, and I suspect that these works hold the residue of his earlier style.

Of the later works the operas should be discussed first. Of the six that remain significant, Janáček himself fashioned the librettos for all but one. At least two (Jenůfa and Vixen) involve use of local dialects. He wrote three more operas, which are rarely given, and worked on several others.

The opera’s most astonishing quality is their diversity. Four of them involve subjects that most other composers would have found at least intractable and at most ludicrous for operatic setting, yet Janáček—whether because he knew no better what a “good” opera subject should be or because he consciously sought to write something radically different each time out—covered more territory than Verdi, Puccini, or Wagner ever did. In this respect he can be compared to Benjamin Britten.

Every Janáček enthusiast has a favorite, and a case can be made for each of the six. Jenůfa is probably still the best known, since it lies closest, in music and in story, to the traditional form and has had the greatest number of productions outside Czechoslovakia (including two at the Met). The second opera, The Excursions of Mr. Brouček (1908–17), is the least known. It is the most difficult to stage effectively, as the parochial story details the drunken fantastical voyages of a sort of Archie Bunker (the comparison is inexact), first to the moon (where the frivolities of its “artistic” inhabitants are satirized in a manner strongly reminiscent of Gilbert and Sullivan’s Patience) and then to the Hussite wars.

The two parts of the opera were not originally intended to go together, which explains their jarring divergence in mood and tone. One is a lyrical spoof and the other a serious patriotic set-piece. At the time that Janáček finished the moon voyage (1917), the Czechoslovak nation appeared to be becoming a reality, and in nine months he wrote a second part, in heroic style, as a proto-celebratory exercise. The character of Brouček likewise changes: In the first he is an amiable clod who in his down-to-earth way is sympathetic when set next to the arty denizens of the lunar climates, and in the second he is presented as a devous coward.
and is largely unattractive. (The two librettos—neither written by Janáček—were by different men.) Yet at least one writer has said (with justice) that Brouček is the most musical of the operas, and the first part stands at the fulcrum of Janáček's style, where the earlier works' lyricism gave way to the controlled rhythmic motifs of the final period. Because of this lyricism and verve, I would guess that, in the hands of an imaginative director who could transform the disparate and more than a little embarrassing material into a more coherent whole, the opera could be a success. And, of course, the first part could be presented by itself.

Kátěva Kabánová (1919-21), written in the first flush of Janáček's love for Kamila Stösslóva, is the most direct and appealing of all his operas. The concision of late Janáček is here at its most com-

From the House of the Dead (1927-28). Once more, Janáček shaped this rambling narrative into a concise, cohesive whole. Though grim, the work is permeated with the aura of the motto he wrote for it: "In every soul a spark of the divine."

To have written these six works would have been an achievement for a composer in his thirties and fourties, let alone for one in his sixties and seventies. But they form only a portion of the music of Janáček's final period. His most famous orchestral works are his three-part tone poem (1915-18) on the life of the Cossack warrior Taras Bulba and Sinfonietta (1926). Taras Bulba harks back to the earlier style and is a very effective concert piece. Even more effective is the coruscating Sinfonietta. My introduction to Janáček in performance was a tremendous reading of this work by Sir Georg Solti and the Vienna Philharmonic in the Grosses Festspielhaus in Salzburg. The tensile nervousness of the late style is endemic to it, and the enclosing brass fanfares set off the jewel-like precision of the other movements. It has been rightly remarked that the awesome glitter of Sinfonietta and the mighty Glagolitic Mass (1926) are the musicalization of Byzantine mosaics. The Mass, a celebration of Czechoslovak independence set in old church Slavonic (the ancestor of the modern Slavic languages, for which Saints Cyril and Methodius devised the Glagolitic alphabet), is in its roughness and rhythmic urgency quite unlike a Western Mass, and its impact is overwhelming.

The Cunning Little Vixen (1921-23)—sometimes called The Vixen Sharp-Ears—is again a difficult subject: the mixing of humans and animals in a tale of nature and young love. It is my favorite of his operas and merits Lord Harewood's encomium: "a miniature of exquisite beauty, a product of a wise (and passionate) old age, a unique example of pantheism in music drama—in my view, one of the great masterpieces of opera, a work of outstanding genius." One can hardly do better than that! (It is interesting to note the number of Englishmen who are Janáček enthusiasts and to realize that there have been numerous stagings of his operas in Great Britain.) The figure of the Forester, who stands between nature and man, and the vicissitudes in the short life of the vixen, tellingly rendered in Janáček's libretto—her pranks, her magical courtship, her offhand death—make the work, as Harewood says, unique in the annals of opera, suffused by the moods of nature and the spirit of eternal spring.

Makropulos Case (1923-25), set to a libretto drawn from Karel Capek's play, was another radical change. Again, intractable operatic material (discussions of involved lawsuits, a 300-year-old heroine): again, a triumph of Janáček's compositional will. The figure of Elena Makropulos (alias Emilia Marty and Ellian MacGregor) grows in fascination to the final anguish in part two. The opera's forte is to transform the disparate and more than a little embarrassing material into a more coherent whole, the opera could be a success. And, of course, the first part could be presented by itself.

The final opera is a setting of Dostoevsky's memoir of a Siberian prison camp, From the House of
America’s leading opera companies are a barometer of Janáček’s rising fortunes in the Seventies. Top left, Anja Silja was Elena Makropulos and Geraint Evans was Průš in the San Francisco Opera’s 1976 production of The Makropulos Case. In the New York City Opera’s staging (1970), filmed projections like that of the heroine’s youthful profile in the photo at top right heightened Makropulos’ haunting message; Maralin Niska was Elena. The Metropolitan Opera’s Jenůfa (lower left), introduced in the 1974 season, was distinguished by, among other things, Günther Schneider-Siemssen’s Expressionistic settings. Last year, Elisabeth Söderström graced San Francisco’s first Katya Kabanová.

method is so personalized that, although he taught all his life and left “disciples,” the Janáček style never went beyond him.

This style is one of utmost compression, paramount reliance on rhythm, and gradual elaboration in pitch, timbre, and contrast within the rhythmic framework. The motifs are short, often to the point of gnomic brevity: Interest lies not in their being manipulated in an open (or intellectualized) manner, as with the works of Webern, but in their being repeated again and again as a concatenation of sound, contrasted and reappearing, moving to new pitches, being subtly varied, and being combined with and succeeded by new motifs. The introductions to many of his operas—or to the Glogolitic Mass—are typical of his method.

As Janáček grew older his method became ever sparer and more subtle. Compare the motifs of Brouček or the final peroration of Taras Bulba—one of the few extended “tunes” he wrote and akin to the closing of a Sibelius symphony—with Shishkov’s narrative in Act III of From the House of the Dead. Similarly, his affection for what has been termed his “top and bottom” orchestration (the high flutes and piccolos, the low basses and trombones) became more pronounced. Such other fea-
tures as the orchestral trill and a variety of echo effects are also frequent.

The aural impact is a central part of his writing, and its emotional effect upon an audience is direct. Janáček was never a cerebral composer, and although he always understated the sexual-sensual elements that form a strong part of the stories of the operas—in this sense he is quite different from such composers as Schoenberg, Richard Strauss, and Puccini—he strived in all his music for a sort of “picture of the earth” in its variousness, its wonder, and its teeming life. An enveloping humanism and pantheism pervade all his works.

Janáček’s music is basically tonal, although it grew increasingly less key-centered as time went on. He preferred to work with modality, whole-tone scales and the like, so that there was some sort of tonal center holding together his web of motifs. The music seems within the Western musical tradition, yet somehow alien to it. Whereas the developmental line of, say, Schoenberg is clear from the early Verklärte Nacht onward, and all of it now strikes us as a logical (if not the logical) progression from the “end of tonality,” Janáček’s music seems to spring from tradition at the same time that it denies it antecedents.

Perhaps this is the secret of his appeal today: that the music manages to unite twentieth-century angst and twentieth-century operatic themes with a context derived directly from the nineteenth century. His heart and soul lay in the nineteenth century, with its optimistic outlook, yet his music has little of the lyricism of Dvořák or the rapturous certainty of Bruckner. Nor does the music, despite its nervous energy, show any of the anguished despair of Mahler. This may be because of the happiness of Janáček’s later years.

Each of the four last operas could be interpreted as bleakly pessimistic yet each has an optimistic underpinning. In the curious direct parallels that exist between him and other twentieth-century composers, Janáček opts for the positive where so many take the negative. Elena Makropulos, a cold, burnt-out husk who uses everyone without pity to gain her ends (even causing one suicide), is very close to Alban Berg’s Lulu. But she is no more Lulu than is Verdi’s Violetta Valéry, for in her final acceptance of death we are made to realize that her ruthlessness was not innate but was inculcated by 300 years of life. In sloughing off mortality she sloughs off her coldness—her anti-humanity—and again becomes, for a final moment, a woman.

Similarly with Kátya: The last moments of the opera are dominated by the triumphant mother-in-law, but Janáček’s music leaves us with the feeling, not that Kátya has been squalidly vanquished by the established order, but that she has triumphed over it. This point of view is a classic nineteenth-century one. The story of the vixen Sharp-Ears, who lives briefly and dies almost by chance, could be seen as the casual wasting of life—like that of Wozzeck. Janáček, however, saw in it the inevitable cycle of nature, fixed and always continuing; the Forester, in the final scene, catches sight of the vixen’s cub, so like her mother, playing in the forest grass.

Finally—and most convincingly—there is a constant undercurrent of hope in From the House of the Dead. The original ending, in which the prisoners return to their bleak lives after the release of one of them, was modified after Janáček’s death so that a hymn to liberty concludes the work. But this ending is redundant (reason enough why it should be discarded), for Janáček once again used the device of irony he employed in Kátya. Yes, life continues in its drab way, but the captured eagle (the obvious symbol of freedom) has mended its wing in captivity and has flown away, and one of the prisoners has received a totally unexpected pardon. Hope remains as long as “in every soul there is a spark of the divine.” The ambiguity of this ending removes it from the world of this century, with its artistic emphasis on nihilism. (Even in Puccini’s Turandot, hope is “La speranza che delude sempre.”) Gerald Abraham castigated the conclusion as being a sentimental and idealistic falsification of Dostoevsky’s original. But it is absolutely in keeping with all of Janáček’s work.

One of the paradoxes of his music is that, although opera lies at the heart of his compositional production, he was in a fundamental way never a natural opera composer (which may explain why he still does not enjoy the success he should, given the quality of his stage works, in the opera house). All writers on Janáček have followed his lead in identifying the vocal line as the musicalization of speech patterns and have made this the central feature and asset of his operatic writing. Certainly he devoted time and skill to the setting of the text and was obsessed by this all his composing life. Yet Conrad L. Osborne, in his review in HIGH FIDELITY (June 1967) of the recording of From the House of the Dead, takes aim at this opinion. (David Hamilton, in his review of the London recording of Kátya in January 1978, also touches on the subject.) Osborne asserts that the vocal line is “depressingly predictable” and has nowhere the musical shape or interest of another master of text setting, Claude Debussy, to whom Janáček has often been compared. This comment is especially relevant to From the House of the Dead, for this opera above all relies on its setting of the text.

Janáček’s music is essentially instrumental, and his musical ideas are given their best expression in the orchestra rather than in the voice. This is not to say that the vocal line does not initiate or imitate an orchestral motif, or that the original motivic idea was not suggested by the rhythms of a spoken phrase, but rather that ultimately the interest lies in its instrumental shape. Abraham, in his book...
Slavonic and Romantic Music, writes: "The intense musicality of the Czechs is fundamentally instrumental; Czech folk-melody is fundamentally instrumental." This is reflected in Janáček's music. In Pelléas et Mélisande, by contrast, the speech rhythms are transformed into a vocal line that remains faithful to speech but that has an independent life as expressive music. In Janáček all too often the sung text lies inert on the surface of the orchestra, so that a brilliant or dramatically apt idea will spring up in the orchestra to be partnered by a commonplace vocal response. The vocal line never provides its own generative force (as with, pre-eminently, Bellini) and only rarely interacts with the orchestra (as, say, with Verdi, Wagner, or Debussy). What Janáček gives us is vocal declamation of text over an instrumental accompaniment, and although this declamation is sung to pitches rather than spoken, it nevertheless remains more declamatory than musical and inhibits the final combined impact upon the audience. "How difficult Janáček makes it for singers to remember that singing is their business," J. B. Steane has said.

Given this rather crippling feature of the operas, why have I called them masterpieces? Because the intensity of his commitment to his art and the strength of his music, coupled with a good dramatic sense and ability to bring characters to life on-stage, have to a large degree mitigated what I see as faults. But the lack of notable independent musical quality for the voice has meant that the operas are more difficult to produce in the opera house, particularly a larger one, where the vocal quantum as such is enhanced and where grateful singing can cover many sins. The same lack has meant that the operas are probably better seen in the opera house than heard on records, where the voice (even in today's more balanced voice-and-orchestra recordings) tends still to dominate. Of course I am not saying that the operas should not be recorded and still less that, when they are sung by first-rate singers, their impact will not be more strongly conveyed. Anyone who has heard Elisabeth Soderstrom as Káťa, or Rudolf Asmus as the Forester, appreciates the extent to which a superior acting voice can buoy up any Janáček opera. (The emphasis is on acting as well as singing, in all of Janáček, and on a solid sense of inflection and rhythm; Glossing the musical line with honeyed sound won't work.)

I think it would be helpful for a new listener to know the text and the dramatic situation of an opera but to try to ignore the specific word setting as much as possible—and to listen through the vocal line to the instrumental essence of the work at any particular moment. In this way one can grasp Janáček's strengths as a composer—a composer for the stage, as well. The richness of one of the most fertile musical minds of our century will then be made fully evident.

The current Janáček discography is not ideal (though the situation is improving). Listeners approaching the composer through recordings might do well to start with the nonoperatic music; among the larger works are the Lachlan Dances, Tarus Bulba, Sinfonietta, and the Glagolitic Mass. Among smaller works are the two quartets, Mladi, and Concertino. Having thus become familiar with his style, the listener can explore the operas.

Conducting Janáček is not an easy task, and Sinfonietta affords a good object lesson. The brilliance of the work would seem to be made to order for a great orchestra, yet merely to play it with panache is not enough. The conductor must suggest the rhythmic underpinning the roughness; and what has been called the "peasant gruffness" of the music—but without slipping into bad ensemble and helter-skelter playing. Seiji Ozawa leads the peerless Chicago Symphony (Angel S 36945) in a beautifully played but smooth and glossy performance. The Bavarian Radio Symphony is a far less impressive ensemble, but it has worked with Rafael Kubelik, a master Janáček conductor, for years, and their performance (Deutsche Grammophon 2530 079) coupled with Tarus Bulba) is everywhere more alive. For the same reasons, I prefer Kubelik's account of the Glagolitic Mass (DG 138 954) among those currently in the catalogs. The Lachlan Dances are contained on a Supraphon disc (50594) with three tone poems. In the area of chamber music, among smaller works are the two quartets, Mladi, and Concertino. Having thus become familiar with his style, the listener can explore the operas.

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Nabucco, finally. This is, we hope, our last report on EMI's recording of Verdi's Nabucco—until, of course, the records arrive for review. When we left our story, EMI was planning to resume work (broken off last July) in February, with a new Nabucco expected in the wake of Piero Cappuccilli's withdrawal. We noted in November: "The likely replacement is a first-rate and much underrecorded Verdi baritone, but perhaps this time we should hold off until we have more certain word."

Now we have that "more certain word," and we can report that Nabucco was completed in February with the title role indeed taken by that bucco was completed in February. As reported last month: Renata Scotto, of the solo quartet should remain as proposed for the recording to be completed; it was made with Kurt Herbert Adler and the National Philharmonic in EMI's St. John's Wood studio. It is a locale that should be amply familiar to the producer, David Mottley, who has joined CBS after his distinguished tenure with EMI, during which he produced such outstanding recordings as the Kempe/Dresden Strauss orchestral works.

Shostakovich cycles. Britain's young Fitzwilliam Quartet, whose first two discs of Shostakovich quartets won high praise from our Shostakovich man, Royal S. Brown (Nos. 7, 13, and 14 in May 1976; Nos. 8 and 15 in February 1977), has completed its traversal of all fifteen for Oiseau-Lyre.

Meanwhile, Bernard Haitink's Decca/London cycle of the symphonies with the London Philharmonic has resumed after hitting an early snag. The first installment, No. 10, has just been released (and will be reviewed next month); the next in line, No. 15, was recorded in late winter after postponement due to the conductor's illness. Also with the LPO, Haitink is working on the complete Mendelssohn symphonies for his regular company, Philips.

Decca/London in Tel Aviv. The Israel Philharmonic has made another batch of recordings for Decca/London: Zubin Mehta has added Nos. 1, 2, and 6 to his Schubert symphony cycle, and Walter Weller has done Smetana's complete Má Vlast.

Svetlanov in London. Conductor Yevgeny Svetlanov, familiar to Western collectors from his extensive Soviet discography, has recorded Rimsy-Korsakov's Scheherazade and Dubinushka with the London Symphony for EMI.

Fischer-Dieskau (continued). Dietrich Fischer-Dieskau continues to make recordings faster than we can keep track of them. While we try to catch our breath, here is some of what he has been up to.

When Richard Cassilly's indisposition halted work on Hindemith's Mathis der Maier, an EMI/Bavarian Radio coproduction, last June, Fischer-Dieskau and conductor Rafael Kubelik (with his Bavarian Radio Symphony) made use of the available session time to tape a collection of Wagner baritone excerpts. (Completion of Mathis, in which Fischer-Dieskau sings the title role, was penciled in for January.)

On the song front, DG has already recorded a sequel to the three-volume Wolf assault: three volumes of Schumann songs with Christoph Eschenbach at the piano. Next on the DG list is a volume of the Brahms songs (all those, presumably, that the baritone deems suitable for male performance) with Daniel Barenboim; Fischer-Dieskau's seven-disc EMI Brahms compendium with Gerald Moore. Wolfgang Sawallisch, and Barenboim was released only in 1975! Barenboim will also be the collaborator in a collection of Liszt songs for DG and Mahler songs for EMI: in the Schoenberg songs (for DG) Maurizio Pollini—who achieved such remarkable results in his DG recording of the composer's solo-piano works—is the pianist.

Fischer-Dieskau and Barenboim are, however, reunited in a rather different undertaking: The baritone is Mephisto in Berlioz' Damnation de Faust, which Barenboim is conducting for DG. The first sessions took place in the early weeks of the year (in the Maison de la Mutualité in Paris), with completion planned for later in the year. Yvonne Minton is the Marguerite. Placido Domingo sings Faust, and the orchestra is Barenboim's Orchestre de Paris.

Keyboard lute. Another blow for "authentic" Bach performance has been struck by Pandora Records (318 N. 36th St., Seattle, Wash. 98103). The lute suites, S. 995-97, have been recorded by Martha Goldstein on the keyboard lute, the keyboard instrument for which, it is surmised, this music was written. Pandora's Richard Krueger explained to us that the suites "as they stand are not playable on the lute, in that they cover the entire range of the lute family from arch lute (bass lute) to the lute and treble lute. Bach is known to have had a keyboard lute built to his own specifications, and his cousin Nikolaus is said to have been an outstanding performer on the instrument."

This short-lived hybrid differs from the harpsichord "in that double choir of gut strings are used with a wide range of plucking points," producing a sound that "resembles the arch lute and theorbo." The keyboard lute used for this recording, with two keyboards and five ranks, was built by the B and G Instrument Workshop of Seattle.
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Technics Professional Series

by Panasonic
Horowitz' Jubilee: A Mixed Bag

The overwhelming impact that the legendary pianist can still have is missing in RCA's recordings of Rachmaninoff, Liszt, and Fauré.

by Harris Goldsmith

Vladimir Horowitz' commemoration of the golden jubilee of his American debut has, interestingly, featured two works intimately associated with an earlier phase of his career, neither of which he had played publicly for a good many years. The festivities, both live and on record, have left me with decidedly mixed feelings, but the wonderfully communicative Carnegie Hall recital of March 12 persuaded me that under the right conditions Horowitz can probably play as well as he ever did—a conclusion that would be hard to draw from his latest RCA offerings: a presumably studio-made Liszt B minor Sonata filled out with two late Fauré pieces (confusingly, even misleadingly, billed under the rubric "The Horowitz Concerts 1977-78") and a recording derived from his first performance with orchestra in twenty-five years, the Rachmaninoff Third Concerto featured in the New York Philharmonic's January 8 pension-fund concert.

Every performance is the product of an infinite assortment of ingredients, an interaction between the performer's inherently complex personality and a host of external circumstances. Occasions when all those elements mesh are wonderful but rare, and that goal is evidently made even more elusive today for Horowitz—whose daredevil performing style is especially vulnerable to intangibles—by such factors as advancing age and relatively infrequent public exposure. On records there is the additional complication of engineering considerations.

The contrast between the recorded and live performances of the Liszt sonata suggests the importance of yet another factor, pertinent to both this and the Rachmaninoff concerto: On both records we are, I think, hearing the pianist still in the process of getting these fearsome works back into his fingers and his blood. I confess that the RCA Liszt, which sounds like a Horowitz parody, had me worried—until the Carnegie Hall performance, which notwithstanding its (predictably) controversial features had the cumulative line and communicative poetry conspicuously missing from the recording.

Horowitz' famous 1932 account of the Liszt (available on Seraphim), though not without merit, was made before his already memorable playing had fully developed its distinctive features, and of course it was made without benefit of tape editing. A modern replacement would certainly be welcome—with more solidity and breadth in appropriate passages, greater technical accuracy, and the full electricity of the mature Horowitz. This isn't it, and I am surprised that he consented to the release of a performance so immobile and bogged down in detail, further beset by an alarmingly high incidence of dropped and missed notes. Particularly unsettling are the feeble octave eighth notes before the prestissimo (page 33 of the Kalmus score): Horowitz has always been celebrated for his astonishing octaves.

Although even in his best performances of the sonata he has fixed on incidental details at the expense of the Lisztian big line and sweeping gesture, I have been swept away by the theatrically contrasted textures, colors, and jolting accents despite their capriciousness.
One can argue, for example, that Liszt knew what he was about when he eschewed the piano's lowest B until the sonata's end, and yet Horowitz' bass amplifications and filled-in chords impart a galvanic, larger-than-life sonority that can be overwhelming. Not here, though, and continuity is further impaired by RCA's decision to split the sonata between sides. To make matters worse, the engineering falsifies Horowitz' tone: Fortissimos put forth with a bleak, nasty sound: delicate filigree, which in the live performance had such caressing nuance, here emerges note by note with glockenspiel-like constriction.

I can't help sensing—in phrases that stutter, Luftpausen that splinter the line, grandioso passages that become ponderoso—that Horowitz, conscious of his standing as the Liszt sonata's foremost exponent, was daunted by his desire to live up to his former accomplishments and make this his definitive statement of it. The March 12 performance showed how magnificently he can still play it. Might RCA allow us to hear the result as he continues to re-absorb it and shape it in interaction with live audiences?

The two Faure pieces, the F sharp minor Impromptu, Op. 102, and the B minor Nocturne, Op. 113, are played with a snowdrift atmosphere that brings out an unsuspected kinship with Prokofiev—for instance, the Visions fugitives and the "Battle on the Ice" from Alexander Nevsky. These pieces are better served here than the Liszt sonata, but they too were far more communally and humorously, rendered at the March recital.

Horowitz' new Rachmaninoff Third Concerto fits into his discography in a different way from the Liszt sonata. There is not only an early recording (in this case from sessions fugitives and the "Battle on the Ice" from Alexander Nevsky). The two Faure pieces, the F sharp minor Impromptu, Op. 102, and the B minor Nocturne, Op. 113, are played with a snowdrift atmosphere that brings out an unsuspected kinship with Prokofiev—for instance, the Visions fugitives and the "Battle on the Ice" from Alexander Nevsky. These pieces are better served here than the Liszt sonata, but they too were far more communally and humorously, rendered at the March recital.

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DG's NEW ENTRY into the Traviata sweepstakes promises well, boasting in Carlos Kleiber the brightest talent among the rising generation of conductors in Germany (some would say in Northern Europe), in Placido Domingo and Sherrill Milnes two highly popular international stars, and in Ileana Cotrubas a young soprano who seems to have won the hearts of European opera-goers. Moreover, like DG's recent Simon Boccanegra from La Scala (2709 071, February 1978)—essentially a re-creation in the studio of a stage production—this Traviata has its origins in the theater: a Bavarian State Opera production conducted by Kleiber but with different principals.

Yet, as it happens, the performance is not markedly more satisfactory than most of the currently available versions of Traviata, a work that somehow continues to defy efforts to make a truly memorable studio recording. Not that one asks for perfection—merely for whatever mixture of expertise and artistry it takes to recreate in one's living room the emotional impact that one knows this score can produce in the opera house. The problem, I suppose, has something to do with the familiarity of the music: The participants in a Traviata recording must make us feel that we are hearing the score for the first time.

Kleiber, the dominating influence here, is often spoken of as a restorative force, as someone who can make the overfamiliar sound new. He is certainly a conductor of outstanding technical command, a leader under whom orchestra, chorus, and soloists perform without a trace of routine or slackness. Textures are clear, chording is crisp, rhythms are unflaggingly maintained. The result is a reading that compels one's admiration and, at several points, one's delight. The sounds that Kleiber draws from the Bavarian State Orchestra, especially in brilliant music, are balm to the ears. What his performance does not do is move one with sudden insight into Violetta's fate. Possibly the reason is a certain rigidity of temperament, an unwillingness to yield himself up to the expressive flow of the drama.

What is missing in Kleiber's work can be heard in a 1955 La Scala broadcast performance conducted by Carlo Maria Giulini, now available in Cetra's Opera Live series. Giulini, no less skillful a technician, is a conductor of quite different character. His reading, while equally disciplined and free of musical excess, is marked by a sense of emotional occasion that, so far as I am concerned, is at the heart of great operatic conducting.

To take but one example: In the ensemble after Alfredo's denunciation of Violetta (Act II, Scene 2), Giulini's performance reaches an intense and moving climax, one built by sensitively gauged adjustments of tempo and emphasis. In Kleiber's account the scene hardly deviates from metronomic precision and is, doubtless for that reason, striking; it is also, to me, inconsequential.

Giulini's performance may strike many people as...
Haydn's Sonatas: Both Amiable and Profound

Hungaroton's solo-keyboard intégrale concludes triumphantly, and Gilbert Kalish adds a third disc to his Nonesuch series.

by Paul Henry Lang

With Vols. 2 and 3, we have the completion of Hungaroton's impressive project—spanning fifteen discs in four volumes—encompassing all of Haydn's works for solo keyboard. (Vol. 1, SLPX 11614/7, was reviewed in January 1977; Vol. 4, SLPX 11625/7, in October 1977.) These works, regarded for almost two centuries as compositions good for conservatory students before they take on Beethoven, are now before us as the products of a rich, loamy musical soil. Haydn achieves the classical balance between inspiration and the will to shape; the dichotomy between intention and instinct is resolved in a perfect merger. It was this stability that enabled him to adventure in security.

At times the thematic ideas may appear to be thin, holding little promise to those nourished on the rich romantic incipits, but once they are elaborated they distinguish the majority of Verdi's dynamic markings. His characterization is strongly conceived and highly thoughtful, a great advance in this respect on his performance in the Prêtre/RCA set (LSC 6180) of eleven years back—his first complete-opera recording. A pity, though, that time has worn the nap from his tone and that today his voice so frequently lurches from note to note, accompanied as often as not by distorted vowels. Cetra's Ettore Bastianini, on the other hand, sings with great tonal beauty, but, because he does not make use of any dynamic or coloristic variety, he is in the last resort boring.

Giulini takes all the standard cuts. So does Kleiber, except that he leaves in the first stanzas of Alfredo's "O mio rimorso" and Germont's "No, non udrai." Only the Pritchard/London (OSA 1366), Prêtre/RCA, and Cecatto/Angel (SCLX 3780) sets are uncut, and unfortunately none of them strikes me as a very satisfying performance.

DG's sound is ideally clear and full, its pressings flawless. There is a libretto in Italian, English, German, and French. Cetra's sound for Act I and Act II, Scene 1 is reasonable, especially given the provenance of this recording. From that point on, one needs a steep bass cut and treble boost, as well as patience and faith. These, however, are amply rewarded: While the ideal studio recording of Traviata is still to come, we now have Callas to listen to.
close altogether unexpected capabilities of development. A single minuscule melodic turn engenders a whole train of ideas that follow one another like a peal of bells. As everyone knows, Haydn was very fond of musical jokes, being endowed with a hearty sense of humor; but there is profundity and amiability in this humor, a sympathetic and generous knowledge of human nature.

The distinguished Haydn scholar László Somfai, who is at the head of Hungaroton's laudable enterprise, classifies the works in these two middle volumes as follows: Nos. 20 and 28-32 (Nos. 21-27 are lost works) are the "workshop sonatas," composed before 1773. Next come the "representative sonatas," Nos. 33 and 36-41, dedicated to Prince Esterházy (Nos. 34 and 35 are difficult to classify), and Nos. 42-52 are the Auenbrugger sonatas, composed for two sisters who, though amateurs, were considered by Haydn better than most professionals. Four gifted young pianists divide the repertory of these two sets.

In the workshop sonatas, Haydn, who already had the ability to present the unexceptional with attractive freshness, learned the art of fitting sound to sense and the reciprocity between detail and formal concept. He had a wide-angle mind that took in everything; now the question was to organize the multiformity of musical images.

But these are not apprentice pieces. No. 30, with its large opening Allegro, approximates the proportions of the early Beethoven sonatas and is the first real "concert sonata." No. 31, with all three of its movements in sonata form, is very pianistic, at times falling back on the virtuoso baroque toccata style. The thematic work in this sonata is very soigne, and there are many admirable little developments within the development. The Adagio grows like a flower: First there is the stem, then the buds, and finally the petals open; it is one of Haydn's finest slow movements. No. 32 is capricious yet introspective, full of contrast yet unified, requiring great interpretative insight and freedom in its performance.

Zoltán Kocsis fulfills these requirements nicely; he has a fine tone and reliable technique. His best moments are in the tumultuous sections, and, while some of the finales are a mite too fast, otherwise he does very well.

In the second group we immediately run into a masterpiece, No. 33, which Somfai calls "perhaps the most momentous solo piano work written between the death of Bach and the Viennese years of Mozart's maturity." It is passionate like the Sturm und Drang symphonies: The elegiac opening theme constantly widens, acquiring more and more tension; the syncopated Andante is a quiet soliloquy; the brilliant final Allegro is again excited, obstinate, and defiant—all appeasing gestures are rejected and the ruddy movement just tears along. Nos. 34, 35, and even 37 are not Sunday pieces, though each one has at least one very good movement.

No. 36 is again on a high plateau throughout. The sonata has a first movement that is elegant yet not without strength; Haydn plays with the lovely theme adroitly—he likes it, and so do we. The Adagio sings, and the Presto finale makes a delightful mockery of meter by constantly shifting the natural accents. No. 38 unites snappy precision with virtuosity, most appealing to pianists adept at the jeu perle, and this pianist, István Lantos, can do it to perfection. The slow movement is a little pat, but the finale picks up the spirit of the first Allegro. In No. 39 the first movement is more or less routine, but the Adagio has a quiet dignity and the Presto is close to the real scherzo.

No. 40 opens with a wide-gestured theme that promises more than what immediately follows, but in the development section Haydn goes to work in earnest, and the procedure is of absorbing interest. The second (and final) movement is a sort of minuet in canon, but so fluent that the uninitiated would not realize the contrapuntal art that went into its making. Speaking of minuets, it is interesting to observe how Haydn begins to extend and transform the simple dance form, at times into a sonata structure, at others combining it with variations or with a rondo. The last sonata in this group, No. 41, has a superb first movement, worked out without thunder and lightning; it is tender and quietly satisfying. Lantos is another handsome young pianist, perhaps a shade more mature than Kocsis.

Among the Auenbrugger sonatas, Nos. 42, 43, and 46 form a subgroup of somewhat lesser works. They are impeccably crafted, but Haydn wanted to please his lady friends with amiable works. The melodic designs are rather ornate rococo, presumably suitable to the ladies' technique. There are many embellishments, but all the developments are serious and the reprises are ingeniously altered.

In No. 44 Haydn suddenly turns to what became so characteristic of classical piano music: the mixture of the orchestral-symphonic with the pianistic. After a weighty "orchestral" beginning, the piano comes into its own, and thereafter the two idioms are genially intertwined. The Adagio exhibits Emanuel Bach's "narrative principle"; it flows as if a tale were being unfolded. The finale is a pleasant combination of minuet and variation. No. 45 is also orchestral, Haydn playing with horn fanfares in a light and capricious construction. The final variations are shear lyric poetry for the piano.
No. 47 opens with an extremely concise Allegro; no wasted motion whatever, no decorative runs. Nor does Sandor Falvai, who plays Nos. 42–47, do any pussyfooting; he plays the lapydary statements with commendable directness. The second movement is a pensive and highly stylized minuet, while the finale is passionate, pressing, full of dramatic pauses, and close contrapuntal imitations—an outstanding piece. Falvai is a sophisticated artist, his tone is beautifully appropriate for this style, his rhythm is sharp but not overly so, and his articulation and tempos are exemplary.

A new pianist, Aniko Szegedi, takes over with No. 48, one of the best-known sonatas. We are now in the midst of masterpieces that managed to reach both professionals and amateurs even in the days when Haydn’s stature as a keyboard composer had not yet been recognized.

The development sections now reach the intensity and thematic ingenuity that we know from the quartets and symphonies, but Haydn makes a distinction between genres. The developments in the piano sonatas do not have the vehemence of those in the orchestral works, but the propulsive force is there, and it is fascinating to watch how he adjusts the spirit to suit the medium. (An entirely different adjustment, but again judiciously scaled to the medium, was accomplished in the string quartets.) Haydn sails into the Allegro of No. 49 in the (then) unusual key of C sharp minor, with a grim determination that immediately recalls the equally grim opening of Beethoven’s F minor Quartet, Op. 95. The work is somber and powerful, a charged and sinewy movement, totally fat-free.

No. 50 is another of the few well-known sonatas, a splendid composition played a little too fast and a bit inflexibly. This is again one of those pieces that demand the jeu perëf, which Szegedi is capable of delivering, but here she takes a fast pace that hurts the gliding quality. However in No. 51 she catches the playful spirit of the opening movement very nicely. The Adagio is fantasy-like, its solemn melody interrupted by arpeggios. The final minuet is less interesting.

No. 52 is one of the unqualified masterpieces. The first movement is fluent yet rich in thematic material with a touch of all’onorese. In the Mozartean Adagio, Szegedi does not miss the implied poco mosso—it is very well played. The finale is again a combination of an exquisitely pianistic idiom with orchestral sallies. The development of this sonata structure is seamless, with now and again new features given to the subject, and it has a surprise ending.

The last sonata in Vol. 3, No. 53 in E minor, opens with an astonishingly Brahmsian theme, a miniature version of the opening of Brahms’s E minor Symphony; but then, Brahms was a great student of Haydn. Though at this point Haydn was well beyond his Sturm und Drang period, this sonata is passionate and full of grand gestures; the difference is that now everything has a discipline that gives the passion strength. But after the stormy opening Haydn relents and, in the Adagio and the final Vivace, returns to the more popular and pleasant style of the earlier works, except that the shaping is now by a wise and infinitely experienced master who is entering on his “third period.”

Szegedi is a very talented but not yet fully formed pianist. She is at times a little mincing—her dotting is a trifle too sharp—and she can be in a hurry because her nimble fingers “can take it”; on the other hand, she has a fine sense for building up a movement and can play a slow piece with a mellow singing tone. She has temperament to spare; all she needs is to learn how to control it better.

Like Vols. 1 and 4, Hungaroton’s Vol. 2 contains keyboard works other than sonatas. The Adagio in F (H. XVII:9), played by Kocsis, need not detain us, but the other two works, played by Kocsis, are more substantial. The E flat Variations (H. XVII:3) is a fairly large work in which every one of the twelve metamorphoses has a distinct character. Haydn’s command of such musings on an idea greatly intrigued Beethoven and Brahms, both masters of the art of variation. The Capriccio (H. XVII:1) on a saucy German folksong is full of fun and jokes, though also of imagination and boldness.

Before leaving the Hungaroton project, I must commend the company not only for the excellent engineering, but for the handsome, most informative and enlightening booklets included, with Somfai’s model essays, analyses, and elucidations of the works recorded.

Nonesuch too has been recording Haydn’s keyboard works, but on a much smaller scale. Gilbert Kalish’s new disc is his third (the first two, H 71318 and H 71328, were reviewed in January 1977). Kalish, a very able pianist, is at home in a wide range of styles and really knows the works he performs. Did someone, however, advise this excellent artist to muddle the modern concert grand? If so, it was bad advice. This music is for the ages, just as much alive today as when it was composed, and the modern pianist should play it so as to do justice not only to the work, but also to his instrument.

Kalish always remains the true pianist, but he at times underplays the music—I imagine to indicate its provenance from a less sonorous era. Some of the cadences are evanescent, and some of the pianos a bit weightless. The grave subject of the C sharp minor Sonata (No. 49), to mention an example, calls for a more robust approach.

Still, Kalish’s is fastidious music-making. In the elegiac Sonata No. 59, he phrases the melody with charming naturalness; this is the sort of music where a lesser artist can easily go astray. The swift Allegro of No. 55 is played with the required speed but also with remarkable clarity; the left hand is emphasized, just a shade as it should be, and Kalish is able to maintain this dynamic relationship from beginning to end. This is first-class pianism.

The sound is very good, and H. C. Robbins Landon’s notes are excellent.

**Haydn: Piano Works, Vols. 2-3.** Zoltan Kocsis (Sonatas Nos. 20–33), Istvan Lantos (Nos. 34–41), Sandor Falvai (Nos. 42–47), and Aniko Szegedi (Nos. 48–53), piano. (Janos Malany and Andras Szokely (Nos. 43–46), prod.) Hungaroton SLPX 11618/22, $39.90 (five discs, manual sequence) and SLPX 11600/2, $23.94 (three discs, manual sequence).

**Vol. 1:** Sonatas: No. 20, in B flat; No. 28, in D; No. 29, in E flat; No. 30, in D; No. 31, in A; No. 32, in G minor; No. 33, in C minor; No. 34, in D; No. 35, in A; No. 36, in C; No. 37, in E; No. 38, in F; No. 39, in D; No. 40, in E flat; No. 41, in A; Capriccio in G, H. XVII:1 (Kocsis), Variations in E flat, H. XVII:3 (Kocsis), Adagio in F, H. XVII:9 (Lantos).

**Vol. 2:** Sonatas: No. 42, in G; No. 43, in E flat; No. 44, in A; No. 45, in A; No. 46, in E; No. 47, in B minor; No. 48, in C; No. 49, in C sharp minor; No. 50, in D; No. 51, in E flat; No. 52, in G; No. 53, in E minor.

**Haydn: Sonatas for Piano, Vol. 3.** Gilbert Kalish, piano. Marc J. Aubort and Joanna Nickrenz, prod. Nonesuch H 71344, $3.96 (Sonatas: No. 43, in E flat; No. 49, in C sharp minor; No. 55, in B flat; No. 59, in E flat).
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June 1978
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**Classical**

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**Barber: Concerto for Piano and Orchestra.** STARRER: Concerto for Violin, Strings, and Percussion. Ruggiero Ricci, violin, Merwin Berger, violin; American Symphony Orchestra, Kazuyoshi Akiyama, cond.; English Chamber Orchestra, John Snashall, cond.* [Judy Sherman, prod.*] TURNABOUT TV 34692, $3.98.

These releases in Turnabout's Contemporary Composer in the U.S.A. series begin with the handicap of mediocre sound: Orchestral passages have almost no brightness, and the string solos on the Lees/Starer disc sound as if they were played out of a box. In the two piano concertos as well, the solo playing is all but swallowed up by the orchestra and general sonic ambience. Since the sound reproduction makes it difficult to judge tone color and dynamic shading, I hesitate to say much about the soloists.

I also question the logic of Turnabout's entering into the Barber/Copland competition when no better orchestral force could be found than the MIT Symphony. Even under the best circumstances it would be hard to approach the intensity and precision of the Browning/Szell recording (Columbia MS 6639) of Samuel Barber's 1962 piano concerto, a masterpiece that ranks with the piano concertos of Prokofiev, Bartók, and Kirchner. This work reveals Barber in an angrier mood than one usually associates with him—even the often limp themes have a rather bitter quality, while in the last movement the composer imitates

*Explanation of symbols

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- **Budget**
- **Historical**
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**Recorded tape:**

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DAHLQUIST
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ness, takes on an aura of sameness; listening to such a work one appreciates all the more Webern's small, well-contrasted instrumental groupings. In fairness, no stereo recording can do full justice to the work's five-point antiphony. (Pierre Boulez adds his conducting services here to help Berio keep control of the situation.)

Relentless too are the 1974 Points on the Curve to Find, for piano and twenty-two instruments, and the 1975 Chemins IV, for oboe and strings. Points is built around a trill pattern, with the instruments weaving in and out of a "continuous line" established by a nonstop piano part. Anthony di Bonaventura accomplishes a small miracle in his unflagging involvement in a solo role that would leave many pianists screaming for a hand transplant. In Chemins IV, Heinz Holliger likewise does an admirable job with the extremely difficult oboe part—his richness of tone and precision of attack are the stuff of a composer's dreams. But again, the incessant, pointillistic stressing of the similar, in this case various single notes, wears thin fast. And while such devices as the oboe "harmonics" Holliger so skillfully attains represent a legitimate expansion of the timbre vocabulary, they set my teeth on edge.

My favorite works on these discs are the two earliest ones, the Concertino (1951) and Nones (1954), which are also the shortest. The Concertino—for clarinet, violin, and chamber ensemble—is the most traditional of these compositions, with regular rhythmic patterns and a more straightforward musical flow. Yet Berio can still be recognized in the sensitive delineation of instrumental timbres (the harp and celesta figures of the opening create a surreal effect) and in such antinovelistic devices as the clarinet's constant return to a high C. In Nones, which derives its title from the canonical hour, Berio has already headed off in Weberneseque directions, but here he manages to develop a convincingly symphonic style that maintains his characteristic crispness while giving the listener a chance to become aware of the varying timbres, including an electric guitar. The thirteen-note row on which the work is based is made particularly transparent throughout, so that one feels a musical unity deeper than in such a work as Chemins IV.

Falling between these two groups are Linea (1973) and the two-piano concerto (1972-73), the latter composed on commission from the New York Philharmonic. Linea, a choreographic work for two pianos, vibraphone, and marimba, has at its core the long opening theme, with a rich, unpredictable rhythmic structure. The concerto both opens and closes with a rather impressionistic cadenza for the two solo instruments (with a third piano—from the orchestra—intruding here and there); along the way there are some interesting surprises, such as the ostinatos that suddenly unify the fragmented rhythmic language toward the end. But while the work avoids the excesses of some of the other compositions, it does not always escape the monotony that grows from Berio's agonizing development of musical material around a single idea.

The performances struck me as exceptionally sharp and committed, and they are complemented by excellent sound, especially on ARL 1-1674, which has somewhat better highs than ARL 1-2291.

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One in our treasury of great performances.

92

The most noteworthy classical releases reviewed recently


BACH: Violin Sonatas and Partitas. ANGEL S 36097, March.


BEETHOVEN: Symphony No. 6. Dorati. MERCURY SRI 75119, May.

BLOCH: Sacred Service. Lawrence, Abravanel. ANGEL S 37305, March.


HEPPNER: Königskinder. Donath et al., Wallberg. EMI 1C 157 30698/700 (3), May.

MOZART: La Clemenza di Tito. Baker et al., C. Davis. PHILIPS 6703 079 (3), May.


SCHUMANN: Kreisleriana; Waldszenen. Beroff. CONNOISSEUR SOCIETY CS 2138 (2), March.

SCHOENBERG: String Quartets (5). Juilliard. COLUMBIA M 34581 (3), March.


Budapest Quartet: The EMI Recordings. 1932-36. ODYSSEY Y 4 34643 (4), May.


Trevor Pinnock: At the Victoria and Albert Museum. CRD 1007, May.

The Record of Singing. EMI RLS 724 (12), Apr.

Conchita Supervia: Operatic and Song Recital. SERAPHIM 60291, Apr.


High Fidelity Magazine
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Debussy's Danses sacree et profane and Ravel's Introduction and Allegro are familiar enough disc mates, but combining them with the second of Debussy's instrumental sonatas—for flute, viola, and harp—is a fresh, sensitive, and practical idea.

Susanna Mildonian, the unifying element of these performances, evidently doesn't believe in the vague and blurry cascades of sound favored by other harpists. She is a precise musician, phrasing and articulating with great lucidity and defining rhythmic values carefully. This in itself helps take these performances out of the dreamy background-music category of all those other versions I have trouble telling apart (though I'm not necessarily knocking them).

Her partners in the Debussy sonata, Maxence Lerrieu and Bruno Pasquier, are particularly attuned to this view, and the work takes on a shape and contour that relate it more specifically to the highly individual First and Third Sonatas (for cello and viol, respectively).

The recording (by France's SFS) is bright and close-up, with excellent separation even in two-channel stereo. Peters' pressing is first-rate.

A.C.


This disc and Rafael Kubelik's earlier DG coupling of The Golden Spinning Wheel and The Wood Dove (2530 713, June 1977) form an integral part of Dvořák's four symphonic poems. Opp. 107–10, based on folk ballads by Karol Jaromir Erben. (This does not constitute the complete symphonic poems, for the 1897 Hero's Song, published as Op. 111, apparently and unaccountably remains unrecorded.) The Water Spritie and The Noonday Witch are even more effective and delightful than the earlier-released works, and schoolteachers who want to turn children on to music's storytelling and evocative powers might re-tire the Liszt and Strauss chestnuts in their favor.

Cowardly who appreciate gorgeous melody, nifty construction, and orchestral wizardry might well listen along.

The recurrent motif that depicts the title figure of The Water Spritie is one of music's most unforgettable characterizations, and Dvořák enlists plenty of sympathy for the water sprite's hapless victims—the gullible fisherfolk. Liszt's hero, in The noonday Witch, is one of my favorite Dvořák pieces, the opening section portraying mother and child at home is as descriptively effective as the brief catharsis of grief at the end. In between, there is that hair-raising episode of the witch's demand for the child, depicted by modulating string tremolos over a bass-clarinet pedal point, leading up to a terrifying set of brass fanfares.

Between Kubelik's readings and István Kertész' with the London Symphony there isn't all that much to choose. Both conductors are enthusiastic advocates, brisk and bright-eyed. Kubelik, by pushing harder in the reflective episodes of The Water Spritie, perhaps undercuts some of that music's pathos. Neither Water Spritie is as broad-spanned as Zdenek Chalabala's with the Czech Philharmonic, in his early-stereo Supraphon Opp. 107–10, but neither that series nor Václav Talich's splendid old Supraphon Noonday Witch (also with the Czech Philharmonic) can match the rousingly clear London and DG sonics. Kertész benefits from a more spectacular dynamic range; Kubelik has the advantage of his usual welcome separation of first and second violins. Couplings may well decide for you. Kertész' two overtures, Husišta and My Home, will be redundant to collectors who have them as fillers to his Third and Fifth Symphonies, and the overtures are in any case a less generous coupling than the Symphonic Variations.

All four current Schwann listings for the Symphonic Variations have much going for them. Václav Neumann's vividly recorded Czech Philharmonic performance on Nonesuch (with the Scherzo capriccioso and the Notturno for strings) is idiomatic and virtuosic in the extreme, though a bit short on individualized treatment of the sections. Kertész' London recording (with The Golden Spinning Wheel) is a little loosely disciplined and sonically gimmicky, but the performance is fiercely dramatic in its structural contours. Malcolm Sargent's Philharmonia reading, which fills out his Seraphim set of Smetana's Ma Vlast, has well-chosen tempos, neatly controlled and stylish playing, and lightly but well-balanced sonics. Kubelik is the most attactive of these conductors to tempo shifts within each variation, whose contrasting nature's are quite nicely characterized. One serious exception is his nervous and lightweight treatment of No. 15, marked successfully musique and grandioso.

Kubelik gets warmly affectionate playing from the Bavarian Radio Symphony, even if it is not in the same league of brilliance as the Czech Philharmonic and the Philharmonia. DG's recording, though a trifle recessive, has nice detail and stereo spread.

A.C.

Faure: Impromptu No. 5. Nocturne No. 13. For a feature review, see page 77.

Haydn: Piano Works. For a feature review, see page 80.

Lees: Concerto for Violin and Orchestra—See Barber: Concerto for Piano and Orchestra.
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CIRCLE 34 ON READER-SERVICE CARD
LIST: Sonata for Piano, in B minor. For a feature review, see page 77.


Some of us who found the young Philippe Entremont one of the most exciting newcomers of the dawn of the stereo era never have been convinced that his pianistic career, successful as it has been, fulfilled his early promise. But his recent activity as a conductor gives at least intimations of renewed artistic growth.

To his credit, here undertakes the challenge of nonshowpiece music calculated to expose mercilessly every textural strand, every infinitesimal detail, of his readings. And Entremont does surprisingly well on the whole: He's in assured, crisp, vital control throughout; he projects a distinctive if perhaps just a bit too bright-eyed and husky-taled personality; and he radiates an infectious relish for the music itself.

Moreover, he avoids many of the pitfalls awaiting inexperience (and some famous) conductors. His main weakness is a tendency to italicize: pressing just a bit, leaning on the whole: He's in assured, crisp, vital control throughout; he projects a distinctive if perhaps just a bit too bright-eyed and husky-taled personality; and he radiates an infectious relish for the music itself.

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depicts the storm in Boris' brain. Still, this makes a useful interim substitute for the most important missing piece in the discographic representation of Boris in its various forms. Shostakovich's orchestration of the opera was a curious affair. Instead of revising Mussorgsky's scoring, he worked directly with the Lamm piano-vo- cal score, retaining (as Rimsky did not) the original notes, barring, and harmonies but making a new orchestration from scratch—and including both versions of Act II. The result is certainly a warmer and more pro- fessional than the original. much less rich and rife than Rimsky's. It frequently bears no relation to the original instrumental lay- out and, as far as this act is concerned, makes a rather bland impression. for the choices tend to be more conventional and obvious than Mussorgsky's.

Boris Shitkolov does all that can be done with the tamer music of this version: he's dignified, expressive, unhysterical, and the voice is unfailingly beautiful in sound. The others are good, too, though the Leningrad recording, which dates back at least a decade (it was first issued as a Soviet ten-inch LP), betrays its age here and there in a thin- ness of string tone and occasional distortion. The standard arias on the reverse go well, too, except for a rather drawn-out account of Gremin's aria. On the Mansurov-led tracks, made in Moscow with the Bolshoi orchestra, the voice is darker in color than on the others, suggesting a different time as well as place of recording. (The Glinka and Rimsky arias, and the Clock Scene from Boris—also unacknowledged as unusual—all appeared in 1967 on Melodiya /Angel SR 40038. along with three arias from Dzerzhinsky's Mon's Feto and a surpris- ingly winning selection of sentimental Rus- sian songs.)

No texts or translations, merely syn- opses. That's probably not as great a loss as it might be: since Columbia didn't know which version of Boris it was dealing with. it would probably have given us the libretto of the second version! You will have to con- sult the Oxford University Press edition for the score for this text. D.H.

Puccini: II Tabarro.

Giorgetta
A Lover
La Frugola
Ludg
F
A Song Seller
Tina
Michelle
Talpa

Giorgetta
La Frugola
Ludg
Tina
A Song Seller
Michelle
Talpa

Hidzard Ranczak (s)
Elzabeth Niehman (ms)
Peter Anders (b)
Hubert Bucchi (t)
Einar Kristlansson (t)
Matthew Ahlersmeyer (t)
Georg Wieter (t)

Stuttgart Radio Chorus and Orchestra. Clemens Krass, cond. [Paul Myers. prod.] COLUMBIA M 34570, $7.98 (SO-en- coded disc)

Puccini: II Tabarro (in German).

La Frugola
Ludg
Tina
A Song Seller
Michelle
Talpa

Renata Scotto (s)
Yvonne Kenney (ms)
Phelan Domingo (t)
Michel Senechal (t)
John Telleveme (t)
Pieter Juffis (b)
Ingvart Wexel (t)
Dennis Nelson (t)

Amorosan Opera Chorus, Philharmonia Orchest. Lorin Maazel, cond. [Paul Myers. prod.] COLUMBIA M 34570, $7.98 (SO-en- coded disc)

Stuttgart Radio Chorus and Orchestra. Clemens Krauss, cond. ACANTA 10 22368-5, $7.98 (mono) recorded in performance January 23, 1938 (distributed by German News Co.).

Comparisons:
Mas, Pardelli, Gobbi, Betterza In Ang. SCLX 3849
Tebaldi, Del Monaco, Merrill, Gardelli Lon. OSA 1151
Price, Domingo, Milnes, Leinsdorf RCA LSC 3220

With II Tabarro, Columbia brings its Trit- tico to a highly successful conclusion. Though neither the Suor Angelica (M 34505, July 1977) nor the Gianni Schicchi (M 34534, December 1977) is without flaws, each of these performances taken as a whole seems to me first-rate. The new recording is even better. For one thing, in this work Lorin Maazel shows a more thorough grasp of Puccini's intentions than he does in the other two. Of the Trittico's component parts, Tabarrio is the most gripping as well as the most at- mospheric, and to these features Maazel's taut and graphic reading does full justice. Particularly notable is the way he gives rein to the sensuousness with which Puccini evokes place and mood: the Debussyan harmonies, the delicacy of orchestration, the colorful use of off-stage voices to sum-
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mon up the life of Paris, the nostalgic reminiscences of the composer's own Bohème. Vital factors in Maazel's effectiveness are the superb playing of the Philharmonia Orchestra and Columbia's spacious, full-bodied recording—though to my mind the off-stage voices are much too near. Nor is his conducting the vocalism. Pride of place must go to Renata Scotto, whose performance as the unhappy young wife of a middle-aged barge owner is superbly characterized. Apart from a pair of characteristically squeezed top Cs (the first, an optional one, would have been better eschewed), Scotto sings beautifully: The tone is pure, the voice freely produced, the legato exemplary. Yet the most impressive feature of her performance is the way in which she uses her vocal skill to serve the ends of drama. Her singing appears to arise spontaneously from the interplay of character and situation.

Though Plácido Domingo's approach is less finely detailed than Scotto's, he communicates such urgency and conviction, and is in such plangent voice, that one is swept away by his performance as her youthful lover. At the end of their love duet, she is an intensely musical singer and no less finely detailed than Scotto. Moreover, her enunciation is exemplary, every word of her part being crystal clear.

An interesting feature of this performance is the retention by Krauss of Puccini's first idea for Michele's final monologue. "Scorni, fiume," later replaced by the more devoutly jealous husband, if not particularly individual, is never less than plausible.

The smaller roles are not as well cast. Michel Sénéchal in particular sounding far too prissy, even effete, for a steevedore, and Giliain Knight too unearthly for a ragpicker. (Her very English-sounding Italian does not help.) Still, these are not crucial drawbacks. The superior playing of the Philharmonia Orchestra, No. 18th Avenue West Lynnwood Washington 98036, is an accomplished singer and an intelligent artist. His performance of the murmurously jealous husband, if not particularly individual, is never less than

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I am delighted at the direction Lupu's playing is taking: He seems to be finding a synthesis between his erstwhile orientation toward incidental color and pianistically conceived detail and a newfound simplicity of means. A recent Chicago Symphony broadcast performance of the Brahms D minor concerto with Edo de Waart was far more heroic and intense than the recording Lupu and De Waart made a few years ago (London CS 6947, June 1976), and the growth is even more apparent in the contrast between his new recording of Schubert's D. 959 Sonata and the exquisitely played but exasperatingly self-indulgent Carnegie Hall performance a couple of seasons back.

The change was signaled in Lupu's finely disciplined recording of the Schubert G major Sonata, D. 894 (reviewed in December 1976), and his mastery of D. 959 is even more complete. The beauty of sonority is as compellingly lovely as ever—a velvety smooth sound, amply differentiated with light and shade—but never once does Lupu disrupt his phrase scansion or dwell on a nicety at the expense of the whole. The tempos are orthodox, and the amiable girth of this songful music is never uncomfortably compressed. This is not the stormier, more angular Schubert—in the Beethoven-Schumann mold—of Schnabel; Lupu's patricially symmetrical phrasing, pearling passagework, and occasional use of the reverse accent rather place the music in the Mozart-Chopin orbit.

Lupu observes the first-movement repeat, yet finds room on his disc for the joyous early A flat Sonata, D. 557. The richly pean and clean technique; Gould's heavily italized, bloated overstatements try to make the works something they aren't. Producer Andrew Kazdin tells us, in a liner note, that the occasion was used also to experiment with acoustic "orchestration" wherein, during the final post-performance mix-down of the multitrack tape, he and Gould planned switches and montages among various mike pickups to better characterize the atmospheric and emotional changes in the music. The listener is asked to "put aside any prejudices." I did that, and noted various odd (and unpleasant) effects, as well as a goof over the piano sound most of the time. What was it that Sibelius said about giving the public not a "musical cocktail," but a "cool, clear drink of water"?


There is no other all-Sibelius piano record in SCHWANN, but Musical Heritage Society has a disc by David Rubinstein that fits all of this pleasant if not strikingly individual music—the very listenable Op. 67 sonatinas and the attractively folksy Kyllikki ("lyric pieces" based on Kalevala legends)—on one side, making room for the more substantial Sonata in F, Op. 12. This last piece is contemporary with the Kullervo Symphony and sounds it in its winged dramatic elan and almost orchestral robustness of color—more characteristically Sibelian, in short, than the works to which Glenn Gould limits himself. Moreover, British RCA Gold Seal has just issued Ervin Laszlo's Sibelius recital (GL 4229), where the three sonatinas are paired with nine shorter solo pieces spanning the composer's career.

Both Rubinstein and Laszlo play this music with unaffected directness, sympathy, and clean technique; Gould's heavily italized, bloated overstating try to make the works something they aren't. Producer Andrew Kazdin tells us, in a liner note, that the occasion was used also to experiment with acoustic "orchestration" wherein, during the final post-performance mix-down of the multitrack tape, he and Gould planned switches and montages among various mike pickups to better characterize the atmospheric and emotional changes in the music. The listener is asked to "put aside any prejudices." I did that, and noted various odd (and unpleasant) effects, as well as a goof over the piano sound most of the time. What was it that Sibelius said about giving the public not a "musical cocktail," but a "cool, clear drink of water"?

SIFLER: Organ Works. Paul Sifer, organ of St. John's Church (Episcopal), Los Angeles. [Harold Daugherty, prod.] FREDONIA FD 2, $6.95 (Fredonia Dr. Hollywood, Calif. 90068).

Fantasia; Joseph's Vigil; Shepherd Pipers Before the Manger; Gloria in excelsis Deo; The Last Supper; Autumnal Song; Toccata on "En' fes-te Burg"; The Devil and Agony of Dachau; Prelude on "God of Might."

The name of Paul Sifer (the i is long) first came to my attention several years ago when his Despair and Agony of Dachau was enjoying something of a vogue in organ recitals. Born in Yugoslavia in 1921 but an American citizen since his youth, he has had considerable experience as a church musician and has composed works for organ and chorus.

To judge from this anthology of his organ music, Sifer's compositional style has considerable variety, ranging from the sometimes brutal Despair to the quietly rhapsodic Autumnal Song. While the former could almost be a musical equivalent of some of the grimmer passages of Camus's The Plague, the latter merely evokes some of the more abstract works of the late Leo Sowerby. Elsewhere, as in the Prelude on "God of Might" and Gloria in excelsis Deo, we find splashes modern rhythms and harmonies typical of such contemporary British composers as Kenneth Leighton. These two works, together with the Autumnal Song, left the most positive impression on

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me; the other pieces have their good moments, but there are too often weakened by long stretches in which chords seem to fail about rather aimlessly, a case in point being the toccata on "Ein' feste Burg." One often searches in vain—or so it seems to me—for a truly compelling artistic vision, a clearly defined personality.

One also senses the lack of a clearly defined personality with the organ Sifler plays here, a 1924 E. M. Skinner with a new (1971) great division by Abbott and Sieker. The instrument is, however, very well recorded, and the bass frequencies are reproduced quite powerfully. S.C.

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**STARER: Concerto for Viola, Strings, and Percussion—See Barber: Concerto for Piano and Orchestra.**

**STRAVINSKY: The Wedding (in Russian)**


Comparison—same coupling;

Simp—Brugge/Radio 3399
Comparison—The Wedding (in French)
Ansermet/Suisse Romande 137
Boulez/Paris Opera 1014
Boulez/Paris Opera, Mezzo. [H. D. W.] 11133
Mass—Simp, Mezzo
Preston/Christ Church Cathedral 129273
Stravinsky/Gregg Smith Singers 1014

The Wedding (Les Noces) is, above all, an exuberant work, and Leonard Bernstein's energetic performance does much justice to that aspect. His players—including some celebrated names who are used to high precision, and they are stunningly registered, with all the percussion detail clearly audible. In the more contemplative passages, the solo singing sometimes lets us down: The mezzo's weak chest register prevents her from having the requisite impact, and the bass can be mealy of pitch.

The language is the original Russian and it sounds plausible, though certainly less incisively pronounced than on Everest's Belgrade version. The latter (apparently never submitted for review), though it does give us an idea of what the Russian words sound like in Russian mouths, is musically inept and dim of sound. For the moment, Bernstein's is the only recommendable recording of The Wedding in its native tongue. (The Craft version listed in SCHWANN. Columbia M 33201 does not include this final version, but rather one and a half earlier versions of the work in different instrumentations; Craft's 1965 recording of the final version, along with Stravinsky's own recording in English, appears to have left the catalog.)

The other alternatives are sung in French. Ansermet's boasts excellent soloists (including Huguette Gonod and Heinzi Rebuss), it's well rehearsed and exceeding staid. Boulez is well sung (the young José van Dam on the bass part), forcefully rendered, and recorded clearly if unnaturally closely—really quite a good buy, with some interesting shorter Stravinsky works on the reverse. Perhaps someday we will get a recording from Russia itself, in which the singers will be completely free of the constraints imposed by working in a strange tongue:—how about it, Mr. Rozhdestvensky?

For the Mass, Stravinsky preferred boys' voices to women's—a preference observed in his first recording, for RCA, though not in the now-current Columbia version. The cooler sound of the immature voices certainly blends better with the austere wind-and-brass ensemble, and both of Stravinsky's recordings are very skillfully sung. I don't care much for Preston's big slowdown at the "Amen" of the Credo, and Bernstein's exuberance once or twice threatens to burst forth inappropriately, but you will do well with either (Preston, perhaps; his disc also includes some soupless motets) and naturally Stravinsky's recording retains its historical interest. Simic is out of the running here too, this time more because of recording quality (distortion) than on stylistic grounds; his disc also includes the a cappella Ave Maria and Pater Noster—which is, in the 1949 Latin versions rather than the original Slavonic ones.

DG's text and translation for The Wedding is in very small type, but that's better than nothing at all, which is what everyone else gives you: both Argo and DG print the Mass Everett, astoundingly and illegally, reprints without any credit some pages from an early edition of a well-known music-appreciation text! D.H.

**TELEMANN: Twelve Methodical Sonatas for Flute and Continuo—Paula Robinson, flute**

Samuel Sanders, harpsichord; Laurence Lesser, cello [Michael Naha and Daniel Nimetz, prod.] MUSICAL HERITAGE HDS 3704/5, $13.90 ($7.50 to members) (two discs, manual sequence). (Add $1.25 postage; Musical Heritage Society, 14 Park Rd., Tinton Falls, N.J. 07724.)

At first glance, nonspecialists well may be frightened off not only by the prospect of a full two hours of flute music by one of the most notoriously prolific composers of all time, but by the candel with which his dozen sonatas are subtitled "methodical. But things are better than they seem—"methodical" isn't pejorative, merely descriptive of the key choices and the educational aims of these works.

First, even two hours of fluting is all too short when it's by the irresistibly delectable Paula Robison. Then, while Telemann was immensely prolific, he was also often—as here—immensely inventive. Finally, "methodical" isn't pejorative, merely descriptive of the key choices and the educational aims of these works.

There are six four-movement and six five-movement works. and the full original title—"methodische Sonaten mit Minnieren für Viol. oder Travers. und CB (i.e., "methodische sonatas with ornaments for violin or transverse flute and basso continuo")—suggests the set's particular didactic significance. For Telemann augments the scores...
of the opening slow movements (in all but one of the sonatas) with an elaborately ornamented top line, on a separate staff, which presents the soloist with a wide choice of decorative devices in the stylistic tradition of the time that may be used in whole or part or not at all, according to the performer's discursions.

Their educational and historical value quite apart, however, these sonatas effectively display both Telemann's supreme technical craftsmanship and his at least occasional poetic eloquence—all consistently animated by Robinson's and continuo-cellist Laurence Lesser's unflagging zest. Unfortunately, the otherwise admirably bright and clean recording keeps Samuel Sanders' harpsichord so reticently in the background that one can hear only tantalizing snatches of his deft realization of the continuo-keyboard part. Except for this, the overall release must be ranked essential for flute (and harpsichord) specialists, unexpectedly charming (and stylistically illuminating) for anyone.

R.D.D.

VERDI: I due Foscari

Lucrèce

Pisana

Jacopo Foscari

Barbarigo

Officer of the Council of Ten

Francesco Foscari

Jacopo Loredano

Doge's Servant

Francesco Foscan

Officer of the Council of Ten

Barbarigo

Jacopo Foscan

Pisana

Lucrezia

Loredano (a comprimario bass role) as chief spokesman.

Three of these principals are "labeled" with four identifying motifs: those for Lucrezia (an agitated, whirling phrase that marks all but one of her entrances) and for the Council (a dark, detached, conspiratorial theme) are worked perhaps rather too hard. I due Foscari was Verdi's most thoroughgoing experiment with such "labels"—not really leitmotifs, for they are simply reiterated, not developed, and not exactly "thematic reminiscences" since, unlike the "kiss" motif of Otello, they do not recall past events in new contexts.

The opera is deliberately planned. One by one, in successive numbers, the four "principals"—and their motifs—are introduced: Council, Jacopo, Lucrezia, Francesco; and then Act I ends with a bold, extended daughter/ father (in-law) duet. Act II is a crescendo of textures: solo, duet, trio, quartet, finale for full forces. In Act III, after the "interpolated" festa, there are solos for Jacopo (poignant), Lucrezia (energetic), and finally—and very grandly—Francesco. Piero Cappuccilli (who sang Francesco in the Parma production of the opera in 1966) is in magnificent form. There is a moment, in recitative, where the Doge "impetuously rises to his feet"—and in Cappuccilli's tones one can positively "hear" him doing so. This finale looks forward to Rigoletto both in its power and in its pathos. Ronconi in the role was compared to Kean. From first to last, Cappuccilli is in very fine voice, and,

strictly, two linked situations. The implacable hatred of Jacopo Loredano causes Jacopo Foscari to be banished from Venice; and the Doge, Foscari's father, is duty-bound to acquiesce in, and himself pronounce the sentence of the Council of Ten. Jacopo dies of a broken heart as he embarks on the vessel taking him from his beloved city. His father, Francesco, is then forced from office, and he, too, dies of a broken heart.

Hardly matter enough for one act, let alone Byron's five or Verdi's three. Verdi urged Piave, his librettist, on the one hand to stick closely to Byron, and on the other, to try to find something that would make a bit of a splash. "It was the composer's idea to start Act III with a gondolier regatta. But later he was scathing about such attempts to jolly up gloomy tales with extraneous festivities not natural or essential to the action; and even before that he had declared that I due Foscari was monotonous in color.

So it is: But the situations are rendered with such force and intensity, and give rise to so grand a climax that the opera does not prove at all monotonous in performance. There are in effect four characters in the drama: Jacopo, the tenor, expresses romantic grief and patriotic passion; Francesco, the baritone, the conflict between stern duty and paternal tenderness; and Lucrezia, the soprano, Jacopo's wife, energetic resistance to the injustices that her husband and father-in-law too readily, in her view, accept. These three, among whom there are already dramatic tensions, are opposed, as a family unit, to the Council of Ten, a sort of composite character with Loredano (a comprimario bass role) as chief spokesman.

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beyond that, he shows a command of inflection and accent, and of dynamic contrast, that make him the Ronconi of our day.

José Carreras should have learned from him that energy is not all. He should have remembered, too, that although the role was composed for Giacomo Ronconi, a forceful tenor, it was the elegant Mario who had the greatest success in it. Much of the time Carreras is quite simply too loud. His prison scene, "Non maledirmi, o prode," is set over an accompaniment marked piano and andantino agitato; although there is no dynamic (in my Escudier score) for the vocal line, it is plainly meant to be soft, agitated, and intense, not a full-throated sing. In Jacopo’s last aria there is a pianissimo marking in his farewell to Lucrezia; Carreras observes the pp just for an instant, on attacking the note, and then at once becomes loud again. And as a result too much of the "delicacy and pathos" is lost.

It would be very sad if this tenore di grazia who has discovered the force and ringing tones that also make him the lead tenor, Graziella who has discovered the force and ringing, passionate phrases when they are apt but setting them off by—"smooth, polished, and flexible modifications of indescribable charm." Carreras is too precious and promising a singer to be allowed to go the way of Giuseppe di Stefano (once so bewitching a Nadir, in Les Pécheurs de perles), or of... but let readers supply a suitable name.

One writes severely because Carreras does not seem to be giving as good a performance as he is capable of. Nevertheless, it is a pleasing performance; there is always something very winning about him, whatever he does. Similarly with Ricciarelli—and here there is the added, disarming merit that one does feel she is singing Lucrezia as well as she possibly can. However, it is not quite well enough to do full justice to the role, which was composed for Marianna Barbieri-Nini, the first Lady Macbeth.

In particular, Ricciarelli’s lower notes lack strength. Lucrezia makes her entrance with forcible drops of an octave, a seventh, a tenth, a twelfth—and, every time, Ricciarelli’s second note is weaker than it should be. The pattern continues—this emphatic sort of utterance is one of Verdi’s fingerprints for a dominating character—and when she sings "Vendetta" to an octave drop in the first finale, the important last syllable almost disappears. Nevertheless, formance of Jacopo as he is capable of. The pattern continues—this emphatic sort of utterance is one of Verdi’s fingerprints for a dominating character—and when she sings "Vendetta" to an octave drop in the first finale, the important last syllable almost disappears. Nevertheless, formance of Jacopo as he is capable of.

In the Escudier score (according to Julian Budden), Lucrezia’s part is "repointed" to accommodate Grisi; I presume that Ricciarelli’s second note is weaker than it should be. The pattern continues—this emphatic sort of utterance is one of Verdi’s fingerprints for a dominating character—and when she sings "Vendetta" to an octave drop in the first finale, the important last syllable almost disappears. Nevertheless, formance of Jacopo as he is capable of.

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The chorus is strong. The Austrian orchestra is better in the string than in the wood departments. The extraordinary prelude to Act II, written for a solo viola and a solo cello, makes a fine effect, and in general the strings play with energy, not just with a routine chug-chug; Gardelli seems to have made them care. He is a conductor quick to respond to Verdian instrumental inventions, and in I due Foscari Verdi writes with... I was going to say unusual enterprise, but it would be better to say with the usual enterprise that he shows in his early operas as he explores the expressive possibilities of the orchestra.

The recording is straightforward and clean, with a good and just balance between voices and orchestra. I due Foscari is a short opera—it takes just under 104 minutes in this performance—and so it fits easily onto four sides. So easily that I wonder why between Sides 3 and 4 a break was made between Jacopo’s recitative and his aria (the recitative could easily have been taken over onto Side 4); or whether it would be unrealistic to ask why Philips did not seek out a tenor with a good high E flat who

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could have recorded, as an appendix, the alternative Jacopo cabalella that Verdi composed for Mario.

In the album booklet, the libretto appears in four languages. The English translation, and a good introductory essay, are by Bud-A.P.

**VERDI: La Traviata.** For a feature review, see page 79.

**VILLA-LOBOS:** Bachianas Brasileiras No. 3; Mômo precoce. Minna precoce (1929) particularly illuminates Villa-Lobos’ creative techniques, since it is based on, if considerably elaborated from, an eight-movement suite. Carnaval dos criancas brasileiras (Children’s Carnival), written in 1919-20 for solo and orchestra. and the first modern recording of the Mômo precoce fantasy, long out of print in its c. 1955 Angel mono version by Magda Tagliaferro (for whom it was written) with a French orchestra under the composer’s own direction.

Both works seem deliberately calculated to dazzle, if not enrage, devotees of classical lucidity and restraint, but they will intoxicate uninhibited Romanticists with their torrents of seemingly inexhaustible improvisatory inventiveness and provocatively savage exoticism. For some, all this sound and fury may indeed signify nothing; for others, the gloriously impressive sound (perhaps especially in SQ playback) and electrifyingly dramatic fury may be more than sufficient in themselves.

The Bachianas Brasileiras No. 3 (1938) is probably the largest-scaled and most pretentious of the whole series, but it follows the pattern of augmenting conventional Italian movement titles (here Preludio, Fantasia, Air, and Toccata) with more descriptive Brazilian subtitles: here “Ponteio” (woodpeckerlike Brazilian bird), “Devaneio” (reverie), “Modinha” (Brazilian ballad), and “Piocpaio” (a woodpeckerlike Brazilian bird). Mômo precoce (1929), particularly illuminates Villa-Lobos’ creative techniques, since it is based on if considerably elaborated from an eight-movement suite. Carnaval dos criancas brasileiras (Children’s Carnival), written in 1919-20 for solo and (in the finale) four-hand-piano. And we’re lucky to have that precursor suite, markedly simpler and clearer in structure and bearing descriptive carnival scene and character subtitles, available for comparison in Roberto Szidon’s recorded version (DG 2530 634, May 1977).

The present formidably recorded performances star the Brazilian pianist Cristina Ortiz, who may look (to judge by her jacket photograph) like a beauty-contest queen but who can play with all the strength and agility of her compatriot Pelé. Vladimir Ashkenazy, who was relatively unimpressed in his recorded conducting debut (Prokofiev’s Classical Symphony, in London CSA 2314), keeps everything under at least reasonable control (insofar as near chaos can be controlled) while still managing, in some of the rare quiet moments, to evoke strangely haunting poignancy. Such profoundly moving passages, no less than the fiercely dramatic, exotically luxuriant ones, make these often disturbing works at the very least unforgettable.

**WALTON: Belshazzar’s Feast***. Coronation Te Deum. Benjamin Luxon, baritone*. Ralph Downes, organ. Choirs of Salisbury, Winchester, and Chichester Cathedrals*. London Philharmonic Choir and Orchestra. Rexehr Solti, cond. [James Mallinson, prod.] London OS 26525, $7.99. Tape: OSA5 26525, $7.95. The present formidably recorded performances star the Brazilian pianist Cristina Ortiz, who may look (to judge by her jacket photograph) like a beauty-contest queen but who can play with all the strength and agility of her compatriot Pelé. Vladimir Ashkenazy, who was relatively unimpressed in his recorded conducting debut (Prokofiev’s Classical Symphony, in London CSA 2314), keeps everything under at least reasonable control (insofar as near chaos can be controlled) while still managing, in some of the rare quiet moments, to evoke strangely haunting poignancy. Such profoundly moving passages, no less than the fiercely dramatic, exotically luxuriant ones, make these often disturbing works at the very least unforgettable.

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there is scarcely another conductor who can so palpably conjure the atmosphere of sheer savagery. Both chorus and orchestra handle the problems of rhythm and intonation with consummate virtuosity, snapping out Walton’s lurching syncopations with just the right balance of brutality and irrevocable and leaning fiercely into the martial dissonances.

Just as predictably, the more introspective parts of the work sometimes seem to elude Solti’s grasp. In spite of the composer’s expressive indications, we never quite sense the real nostalgia of Psalm 137 (“By the waters of Babylon we sat down and wept . . .”). Here the fault is at least partially of that chorale tone, which in soft passages becomes unfocused; the effect is not atmospheric, but mushy, and the occasionally ragged attacks are distracting.

Baritone Benjamin Luxon sings with conviction, though the close position of the microphone accentuates some vocal problems: The rather throaty tone is simplistic, I suppose, but the sometimes uncontrolled wobble plays havoc with loud high notes and a couple of coloratura groupings. I was bothered, too, by Luxon’s insistence on singing “Jeruzalem” against the more usual pronunciation from the choir.

Despite its flaws, Solti’s Feast is a worthy and welcome addition to the Walton discography, all the more so for its pairing with the large-scaled Te Deum composed for the coronation of Queen Elizabeth II in 1953. As befits the grandeur of such an occasion, the work calls for quite an array of performing forces—two choirs, two semi-orchestras, boys’ choir, orchestra, and military brass—and the score abounds in felicitous touches. Solti’s performance is appropriately powerful, but I prefer the more integrated approach of Louis Frémaux’s EMI recording (available as an import through both Capitol and Peters International) with the City of Birmingham Symphony Orchestra and Chorus. The sound of the Birmingham choir is magnifici- cent, and the recording is at once spacious and clearly focused.

The overall impact of Solti’s performance is considerably enhanced by the handwork of London’s engineers who have provided their best razzle-dazzle sound. The aural perspective has been a bit too near-focal, especially in that he probably never was or much wanted to be a great virtuoso. His tone as heard in the new Odyssey set is hardly in- remarkable alto quality virtually extinct among violinists today. (Nearest of kin is Pina Carmirelli: it is no coincidence that Serkin elected to give his only post-Busch recording of the Beethoven violin sonatas with her.) If Busch’s playing was sometimes unremarkable in purely violinistic terms, it was rarely less than adequate to his musical purposes and his musicianship was wonderfully discerning and selfless.

A comparison of Odyssey’s newly reissued 1946 Library of Congress transcription of Schumann’s A minor Sonata with the 1935 HMV Serkin/Busch recording provides an instructive lesson in how the two became “Americanized” after they took up residence here. The HMV performance is gentler, more relaxed in both tempo and phrasing, far more vocal than instrumental, and much closer to my image of this tender composition. In the last movement especially, Busch in the later account strives for a spiky assertion that some may find off-putting. One finds a consistent variation between the Odyssey Beethoven sonata performances—one of them from recording sessions, two from live performances—and the earlier HMV versions of various sonatas.

This is not to disparage the Odyssey set, but to suggest that it gives less an overview of Busch than a vivid cross-section of his later years, when an unmistakable element of pedantry colored much of his musical thinking. Something similar has happened to Serkin, and after the deliberate and dog-
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edly metronomic reductions of Haydn, Mozart, Beethoven, and Schubert in the great pianist's Carnegie Hall recital this past season it is pleasant to encounter once again his young self, with animated tempo, occasional spontaneous (and certainly not excessive) fluctuations, and less grim attitudes about observing repeats. Also, while neither Serkin nor Busch was exceptional as a colorist, these readings do have some surface nuance, which comes through even the dated, rather hard sound.

The Bach concerto performances with the Busch Chamber Players may not be "authentic" in style, but Busch (along with the admirable Frances Magnes in the double concerto) keeps his German Romantic upbringing under stern control. H.G.

IGOR KIPNIS: Capriccio. Igor Kipnis, harpsichord. [George Spoonhaltz, prod.] ANGEL S 37307, $7 95.


Igor Kipnis' fascinating exploration of program music for harpsichord provides such amusing entertainment that few listeners are likely to realize how ingeniously representative it is of a historically significant musical genre. Only the Bach Capriccio is relatively familiar. Kuhnau's somber Biblical Sonata No. 4, Couperin's satirical caricature of musical union-shop activities, and the Dussek lament, a near-century later, over Marie Antoinette's tribulations all have been recorded before (the Dussek by Kipnis himself some years ago for Golden Crest), but this is the first time they've all been encompassed in the same program. And there's still room for a novelty: a celebration of the 1671 Hungarian rebellion by the obscure Italian virtuoso/composer Alessandro Pougletti.

Needless to say, these works are brilliantly played and recorded on Kipnis' Rutkowski & Robinette German- and brillianty played and recorded on Kipnis' composer Alessandro Pougletti.

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Once again, I am impressed. The voice emerges nearer, freer, and brighter, without impairment of its distinctive timbre. The accompaniments are certainly clearer: the piano, even in the 1913 Parrykyn song, is remarkably plausible, though not entirely free of shattering. The low grinding heard on the Caruso disc is present and not distracting, though some thumpings and scratches are occasionally obtrusive. In the Schumann and Rachmaninoff songs, the climactic high notes undergo some distortion (along with the trouble they are evidently giving the singer at this stage in his career).

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often reveal great lacunae here, or at best some sketchy summaries, and the record catalogs have done no better. This new disc of seventeenth-century Spanish music offers quite an interesting excursion into the unknown—secular songs by Maiteo Romero, Juan Hidalgo, Miguel Marti Valenciano, Juan de Navas, and anon.; instrumental pieces by Bartolome de Selma y Salavendre—and everything is performed with evident authority.

The songs reveal strong links with the rhythms and sonorities of Spanish folk music—a tradition still vibrantly alive today, of course—and soprano Montserrat Figueras has wisely cultivated a singing style based on this folk tradition and on her research into early Spanish vocal techniques. The effect can initially be startling to those of us accustomed to a smoother and less passionate manner, but it is entirely in character with the music and Figueras carries it off with great aplomb. The instrumentalists prove nicely versatile, matching Figueras' intensity in the songs but relaxing into a more genteel style for the rather Italianate instrumental pieces.

It's a pity that the liner notes tell us almost nothing about this little-known but strangely beguiling music, and the omission of texts and translations of the songs is a further disappointment. There can be no complaints, though, about the recorded sound, which provides a most satisfying balance of clarity and warmth. S.C.

CLOSE ENCOUNTERS OF THE THIRD KIND. Original film soundtrack recording. Composed and conducted by John Williams. [John Williams, prod.] ARISTA AL 9500, $8.98.


John Williams' music for Steven Spielberg's Close Encounters of the Third Kind is as effective and enchanting as his phenomenal Star Wars score, but the two are stylistically as disparate as the films themselves. Williams lavished high romanticism on the fantasy and swashbuckling adventure of Star Wars; for the qualified science fiction of Close Encounters, which offers a credible vision of mankind's first meeting with extraterrestrial beings, he has produced, for the most part, a frankly idiomatic sci-fi score.

The primeval bass rumblings, staccato tone clusters, chilling string and voice glissandos, frenetic agitato passages, and novel avant-garde effects—all within an atonal, full-scale symphonic context—skillfully create an ambience of alien menace. And when, during the film's spectacular thirty-five-minute climax, the aliens reveal themselves to be benign, kindred spirits and bearers of the secrets of the universe, the music's dissonant tensions resolve through a calculated progression from atonality to high chromaticism to exquisite tonality.

The effect can initially be startling to those of us accustomed to a smoother and less passionate manner, but it is entirely in character with the music and Figueras carries it off with great aplomb. The instrumentalists prove nicely versatile, matching Figueras' intensity in the songs but relaxing into a more genteel style for the rather Italianate instrumental pieces.

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This latter section of the score is remarkable for its dreamy quality and sheer sense of wonder, which mirror and intensify the ecstatic, almost religious experience of the ultimate human-alien encounter. Williams achieves this mystical effect primarily with a hauntingly serene interpolation and cleverly disguised set of inversions of Ned Washington and Leigh Harline's "When You Wish upon a Star." His overtly metaphoric use of this song, and subsequent thematic transfigurations thereof, is breathtaking (especially his use of the wordless chorus)—an inspired accompaniment to the on-screen occurrence.

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sharper focus and in more cogent form than Williams' performance. RCA's recorded sound is also a significant improvement over Arista's, though it is not quite up to the superlative standard of earlier recordings in the series.

The major portion of the Gerhardt LP is devoted to excerpts from the Star Wars music, a six-movement suite arranged by Williams himself except for Gerhardt's additions of the rousing "Here They Come!" The composer arranged this suite for reduced orchestra, but Gerhardt, knowing well the importance to this music of a full orchestral complement, used the original full orchestrations instead. As one would expect from his previous recordings of lavish, Romantic film scores, he performs these excerpts with all the flamboyance and high spirits implicit in the music and the film, making his a definitive version despite its unfortunate brevity and the slight discrepancies between Williams' new arrangements and the actual soundtrack music.

Much less successful is the London disc of Star Wars and Close Encounters excerpts by Zubin Mehta and the Los Angeles Philharmonic. This Star Wars rendition is awkward and cumbersome: Mehta's reading is too severe and heavy-handed, with little sensitivity to the witty, often tongue-in-cheek character of the score. He performs the same suite as Gerhardt—less "Here They Come!" but plus the delightful "Cantina Band." The latter, directed by Jules Chaikin rather than Mehta, is easily and not coincidentally, the most successful segment in the suite.

Mehta fares considerably better with the less derivative, more innovative Close Encounters music. However, his all-too-brief twelve-minute suite (selections unspecified) is mere sampling: It whets the appetite for Williams' sumptuous music and then fails to deliver the main course.

For Close Encounters my choice must be Gerhardt's recording, though the Arista soundtrack is invaluable for the composer's interpretation and for the "Conversation" cue. As splendid a job as Gerhardt does with Star Wars, there's just too much fine music omitted for his recording to usurp Williams' two-disc soundtrack album. The Mehta LP, issued in an inferior domestic pressing, offers no serious competition to any of these recordings. R.F.


Last year was not a good one for film music. But one of the few scores that rose above the general mediocrity is Richard Rodney Bennett's Equus.

For those used to the warm symphonism of other Bennett scores, the strings-only Equus music will come as something of a surprise. The warmth remains, this time lending its aura to the mellow, elegiac serenchantment of the main theme. With its mildly baroque flavor and minor-major triad shifts, this theme has a poignancy that brings to mind scores by Michel Legrand (of all people), such as Vive sa vie and The Go-Between. It is later developed with much closer and more dissonant harmonies, while a brighter second melody, introduced by the cello, continues in the baroque-tinged directions of the first. In a much different vein, sustained strings playing in open intervals (somewhat recalling suspense music from Bennett's Murder on the Orient Express) offer bleak musical support for the photographic depictions of moonlit fields and their vegetation.

This disc also contains substantial excerpts from the screenplay by Peter Shaffer, mostly in the form of monologues by Richard Burton. Ordinarily I object to the intrusion of dialogue on soundtrack albums, since it tends to make little sense out of context and is usually badly recorded. But given the strongly theatrical nature of the film, the excellence of the script, the strength of Burton's voice and interpretation, the decent sound reproduction of the voices, and the fact that the producers have thoughtfully allowed the principal musical sequences to be heard without vocal overlays, it is difficult to find fault with this album.
CCC/Orion cassette coupling. This month's double-barreled good news is that, first, the Classical Cassette Company (formerly Club) has expanded its repertory to include Orion and Cambridge recordings and, second, Orion Master Recordings has joined CCC to distribute everything in a new CCC/Orion cassette catalog via leading retail dealers. (The CCC itself continues as before to distribute via mail order only.) The list price for these cassettes, including many of double-play (two-LP) length, is $7.98 each. And, as before, all will be Dolby encoded and supplied with at least brief annotations. (For a copy of the catalog, write to Box 4087, Malibu, Calif. 90265.)

My first samplings of the initial joint releases confirm my expectations of provocatively unhampered repertory and the first-rate processing technology characteristic of everything supervised by tape-pioneer Julius Konins. Perhaps my personal susceptibilities to Handel and reed instruments make me particularly receptive to two of the Cambridge programs, yet for one of these (CRC 502), no one needs to be favorably predisposed to relish Carole Bogard's dramatically idiomatic performance, with the Vienna Philharmonic, is magnificent recorded, yet it is the indescribable poignance of the music itself that makes this work so unforgettable an experience.

True or false: The staging problems of Mozart's last opera, La Clemenza di Tito, justify the long neglect of some of this score's finest Mozartean inspirations. It won't be hard to decide decisively for yourself once you hear the Colin Davis/Covent Garden production, which is gloriously illuminated by a galaxy of stars: Janet Baker, Yvonne Minton, Frederica von Stade, and Lucia Popp (Philips Prestige Box 7699 038, $23.95). Even if the fine decade-old Kertész/London version hadn't gone out of print in an Ampex reel edition, it would be eclipsed by the present set's consistently fine singing, taut orchestral playing, and gripping sonic presence.

Exceptional recorded presence and sonorities are perhaps even more essential to the full effectiveness of another great work that is relatively unappreciated on records: Verdi's Simon Boccanegra (Deutsche Grammophon Prestige Box 3371 032, $28.94). This first-ever tape version, the current most spectacular recording, stars the peerless Piero Cappuccilli in the title role, may be more often acceptable than outstanding as far as its individual singers are concerned, but it is properly magnificent in its vital ensemble scenes, choral parts, and richly colored orchestral playing.

The one operatic staple I've heard this month, the Puccini Bohème starring Montserrat Caballe and Placido Domingo (RCA ARK 2-0371, $15.98), is much more uneven in quality than any of the three more novel works above. Like them, it is notable for robust recording of exceptionally well-controlled orchestral playing, here by the London Philharmonic under Georg Solti. And it too has moments of uncommonly beautiful vocalism. What it lacks are sharply delineated characterizations and any genuinely moving evocation of dramatic pathos.

Reel classical romanticism and rococoism. If there's a better duo-piano team around than the Koniar's, I have yet to hear it. Witness their well-nigh ideally played and recorded complete set of the twenty-one Brahms Hungarian Dances in the original piano four-hands edition (DG/Stereotape reel 3650 055A, $9.95). Not least of its sparkling attractions is the brothers' skill in arguing the composer's own case for preferring this keyboard scoring over more often heard orchestral transcriptions.

Another DG/Stereotape reel (3650 054 A, $9.95) couples Sibelius' lightweight Karelia Suite with the finest yet recorded performances, by the Helsinki Radio Symphony under Okko Kamu, of the more characteristic Four Legends, of which the best as well as best known is No. 3, The Swan of Tuonela.

Among the latest Vanguard/B-C open-reel releases ($7.95, by mail order only from Barclay-Crocker, 11 Broadway, New York, N.Y. 10004), one will particularly delight rococoists, another will bewitch romanticists.

D 0318 provides the first extensive tape representation of vocal and orchestral excerpts from Rameau's opera-ballet, Les Paladins. If the three French soloists are perhaps only serviceable, Jean-Claude Malgoire leads his Grand Ecureu et la Chambre du Roy with sprightly verve. But while there are notes, as always, lamentably there are no texts.

D 2142 belatedly brings to tape that quintessence of German sentiment, Goldmark's Rustic Wedding "Symphony" (actually, it's a suite). Maurice Abravanel is no Beecham, or even Bernstein, with this score, but he and his Utah ensemble obviously love every moment—"linked sweetness long drawn out"—of this incomparably mellifluous music.

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MCA RECORDS
Despite healthy critical acclaim for its 1977 debut LP “Marquee Moon,” Television has yet to become a household word. Leader Tom Verlaine seems to further obscure the band’s identity by going out of his way to make himself untrendy. His taste runs to layers of oversized reefer coats, discount store button-down leather jackets, and instantly forgettable plain trousers—not an ornament or carefully constructed tear in sight. Nor does he frequent New York’s New Wave night spots with their sardine-like crowds and barely tolerable PA systems. Like the music he writes, Verlaine’s personality cuts its own path: mysterious and intriguing on the surface, displaying increasing intricacy on closer examination, yet never wholly fathomable. So much for the ill-informed press’s categorization of the band as punk rock.

Television shuns identification with the New York underground scene, even though they did gather their first fans at CBGBs. CBGBs—which, ironically, stands for country, bluegrass, and blues—is the Bowery’s equivalent of the 1963 Liverpool Cavern Club, the cultural breeding ground for the “Liverpool sound.” “We started the CBGBs band circuit,” says Verlaine. “In New York to have music in a bar you have to have a cabaret license. So we just walked the streets looking for a guy that had one. That’s when we found CBGBs. At that time, Hilly Kristal [the owner] was folk-oriented, but he put us on Sunday nights anyway. So we were playing there in 1974 when it was a folk club.

“In that year, the Ramones, I believe, came along, and Blondie was around too. About a year later, Patti Smith started playing there with us, which got the club a lot of attention. Then later in 1975,
Talking Heads and Mink DeVille came along.

Long before the New Wave culture took hold at CBGBs and Max’s Kansas City, New York was a sympathetic home to noncommercial performers who fused rock with other plastic arts and enjoyed dedicated, if limited, followings. It nurtured Lou Reed’s and John Cale’s mid-60s Velvet Underground as well as Verlaine’s first New York band, the Neon Boys, formed in 1971 with childhood chum Billy Ficca on drums and Richard Hell on bass. Guitarist Richard Lloyd later joined the trio, and, when Fred Smith replaced Hell in 1975, the current lineup for Television was complete. (Hell, a disturbing mythical figure, has been credited with creating the English punk styles of forked hair and ripped-up clothing. In fact, entrepreneur Malcolm McLaren followed him around New York for weeks before returning to England to create the Sex Pistols.) Hell’s image is a lot stronger than his bass playing, and his split with Verlaine was not amicable. Verlaine chooses to keep his opinions on the matter off the record.

Television began to get some attention, despite the less than ideal performing conditions at CBGBs. “We didn’t have any money,” says Verlaine. “We were playing on equipment that was falling apart. There were no monitors so I couldn’t hear myself sing. People breathing down my neck. CBGBs is sort of a fun place, and I love it, but there aren’t many places that are as bad to play.”

By 1977 the press had leapt upon punk and New Wave in a frenzy suited to the discovery of the wheel.

Their early sound was rough and strained. Verlaine often forced his vocals to a level of exaggerated pain, and off-key notes were more than a rare occurrence. Yet somehow he made the crude surroundings work to the band’s advantage. His songs build, inexorably and painstakingly, to either an emotive climax or a lengthy resolution, and their nervous, creeping manner pulled the audience along.

The group captured a bit of the tension and sweat of their first years on a privately pressed single, Little Johnny Jewel, Parts 1 & 2. “It was just a way of saying, ‘Here we are.’ A very impromptu kind of thing. It didn’t cost us anything to record it, because we used a friend’s tape recorder. . . . I think we first printed 500 copies. We had some money lying around so we figured we’d keep pressing them as we sold them. We sold about 6,000 altogether. The guy who used to manage us, Terry Ork, is still pressing and selling them—and doing all right for himself,” Verlaine muses.

By 1977, the press of America and England had leapt upon “punk” and “New Wave” in a frenzy suited to the discovery of the wheel. Every band that played unconventional music in New York or London, and any artist who appeared at CBGBs, no matter what their style or philosophy, was lumped into that category. The results were both good and bad. Television got the chance to record professionally—that was good. But so did mediocre and downright inadequate players, as a&rs departments everywhere caught the “next-big-thing” fever. Verlaine voiced his extreme displeasure at the situation just before the release of Television’s first album. “I suppose labels are signing New York bands. And I suppose most of the CBGBs groups are signed by now. A big executive once told me—and he was absolutely right—that in the 1950s and ‘60s signing someone was like shooting one arrow in the dark. But now they shoot a hundred arrows in the dark and hope one of them’s gonna be a bull’s-eye. It’s ridiculous.”

The explanation for his not wanting to be identified with the New York scene unfolds: “CBGBs now seems like a place where you could get well known by playing. I do know of bands that picked up a guitar for six weeks and got onstage there. Why not, I suppose. But I don’t know how much they have to offer.

“Only two bands have survived the ’60s San Francisco scene—the Grateful Dead and the Jefferson Starship. That’s what is going to happen out of this. In another three years, there might be three bands left that have some kind of lasting appeal.”

If Verlaine’s prediction does come to pass, one of the survivors will undoubtedly be Television, whose awareness of music business machinery can only work to their benefit. They had the choice of three labels and chose to sign with Elektra, both for its contractual terms and its size. “We got offered some deals that were a complete insult—absolute shyster deals,” he says. “Some guy sitting behind a desk, thinking you’re a fool. Elektra is not an egotistical company. They had the Doors. Love, all sorts of weird stuff. . . . I think they’re the best label for us. Some companies are so big that we wouldn’t get any attention and others are so small that we wouldn’t get distribution.”

To insure that their first album would be received well outside the New York inner circle, Verlaine enlisted Andy Johns as its coproducer, a man whose engineering credits stretch from the Rolling Stones to Led Zeppelin. Verlaine was confident of his own ability to chart the band’s creative direction and wanted top-notch technical backup. “Marquee Moon,” released in February of last year, showed an originality that went beyond the three-chord formula of most punk bands, sharing with them chiefly the vocal urgency and rhythmic intensity that separates the entire phenomenon from show-biz America’s deeply entrenched blandness. The title song was a ten-minute opus that closely resembled late-1960s extended works by the Doors. The seven other cuts, while

“We got offered some deals that were a complete insult—absolute shyster deals.”
briefer, were equally crammed with detailed guitar leads and convoluted lyrics, convincing in a doomy way. Both critics who were partial to the New Wave and old line rock & rollers praised the LP, noting Television's ability to reconstruct '60s styles with originality and feeling, while neatly avoiding their ego-tripping or psychedelic excesses.

In retrospect, it seems somewhat primitive compared to their new LP "Adventure." "The first album was done in a studio that was falling apart, I will say that," says Verlaine. "But even that doesn't bother me. It was basically a live album—there wasn't much overdubbing, only when something sounded so bad it needed to be fixed."

Sales never came close to paralleling the critical raves, although both the LP and several singles did well in England, as did their tour there. Reaction to their U.S. tour with Peter Gabriel was, to use a euphemism, mixed. Putting a staunchly individualistic group on a national tour here is asking for trouble. "Most people were there to hear Gabriel and never heard of us. We got good reactions in Texas and the Midwest. San Francisco, Los Angeles: the worst audience was in New Jersey. The New York show was so divided, I thought the whole thing was amusing, myself. It was really funny to stand onstage and not be able to tell if more people were booing or cheering. It was an abstracted sound that I'd never heard." Verlaine certainly has a unique way of describing being caught in the midst of what I recall was a minor-league riot.

"I don't think we were that far apart from Gabriel," he added. "He's very musical, and I think we're musical too. It's not just going out and slamming a couple of chords for two hours."

Tom Verlaine's insistence on innovative musicality has flowered on "Adventure." (The title song, by the way, was bumped for lack of space.) "The title is sort of suited to the whole album," he says. "Perhaps the firmest indication of Television's current aims lies in their use of engineer John Jansen as coproducer, whose ability to clarify is vividly illustrated by the Supertramp albums "Crime of the Century" and "Crisis. What Crisis." Verlaine made the most of his contractual freedom, spending almost six months in the studio getting the LP as close to perfection as possible.

"It seemed like I was living there," he says. "I have fun in the studio. There'd be a couple of days where we'd quit early because we were getting tired, but for the most part we wanted to make things sound a certain way and try out a lot of ideas. Elektra is smart in that they don't seem to pressure their acts into deadlines. It's rare that you can really get something great done under pressure."

"This album is a lot more melodic than the first one. It might have something to do with being more relaxed in the studio and having more time. Every vocal is suited to the song, rather than just blasted out from the vocal cords. The mix in the headphones was so much better, I could hear my voice."

The band also experimented with new harmonies, and Verlaine added diverse keyboards to the instrumental lineup, though he has no current plans to work with them in performance. The songs seem more straightforward, whether expressing the outright aggressiveness of Foxhole or the pastoral ease of Days, a possibility for a hit single (unlikely as that may be). Another of their sources is unearthed in Careful, an older song that reminds me of Sergeant Pepper. When I told Verlaine that, he replied, "That's funny. Everybody who's heard that song says it reminds them of the Beatles. Actually, Careful sounded so easy and simple, we decided to go totally berserk! There are about fifteen kinds of things happening on it—maybe that's why it sounds like Sergeant Pepper."

Verlaine pulls weird sounds from commercials and notates them, and two years later uses them to underscore a new song. His own record collection includes Arabic and dervish music, early-'60s percussion albums ("thousands of bongos and conga drums, not African but all sort of arranged"), new releases from Duane Eddy and Presley guitarist Scotty Moore, avant-garde ESP discs his mother bought him for his fifteenth Christmas, and numerous bargain-bin finds. One of the first LPs he ever bought was "Music from the Twilight Zone" in 1961, and he still listens to it. "I buy totally on whim. Everything most people find acceptable is wallpaper." Echoes of a thousand inspirations combine to produce Verlaine's creations, and their chance junctures have kept Television aggressively alone, even with a new album that may become a commercial giant.

JUNE 1978
How to Get a Job in a Record Company When Your Brother Isn’t a Rock Star, Your Uncle Isn’t a Producer, and Your Father Isn’t a Vice President . . .

by Jim Melanson

You’re thinking about looking for a job at a record company, but you’re not sure how to go about it. Well, the first thing to do is prepare for an uphill fight. Getting in isn’t going to be easy, particularly if your father isn’t a label vice president, your brother isn’t a rock star, and all the mailroom and stock-room positions are filled.

On the other hand, most people working in the industry today were in your shoes at one time, so it can be done. Some got their start sweeping a studio floor or a concert hall stage. Jerome Gaspar, an in-house producer at RCA, broke in as a teenager via an acquaintance at the Boys’ Club of America who had connections. Bob Reno was “resigned to working an everyday job and living in New Jersey” until he met a successful songwriter while pumping gas at a local garage. That songwriter encouraged him to start “ wherever you can,” so he switched from pumping gas to being a stock-room clerk at Cadence Records. Reno is now president of Midsong Records, called home by such artists as Silver Convention, John Travolta, Melanie, and Carol Douglas.

Before you even try getting your foot in the door, it’s important to learn what’s behind it. Producing and promoting records is a sophisticated business these days—your approach should be based on practical wisdom, not starry-eyed dreams. Between the presidency and the assistant janitorship there are a host of jobs to aim for; you’ll find that many of them, particularly at the major labels, are similar to the jobs in any large manufacturing concern.

- **Secretarial and Clerical.** This can be a good entry ticket in any business. Maureen O’Connor, head of New York press and artist relations for Capitol, started four-and-a-half years ago as a secretary. She describes the clerical niche as “the easiest to get into, but then one of the hardest to get out of.”

- **Publicity.** If you’re fairly gregarious, know music, and get along with people well—particularly magazine and newspaper editors and free-lance writers—this might be the place for you. “The most important thing for a publicist, aside from knowing music, is to be able to write,” explains Stu Ginsburg, national director of publicity at Atlantic Records. Getting favorable stories printed on label acts and stroking the egos of key executives is also a part of the job. And you’d better like to eat and drink a lot.

- **Artist Relations.** Closely linked with publicity and promotion, this department’s duties include coordinating interviews at radio stations and auto-
graph sessions at record stores, and handling travel arrangements. This can require the patience of Job, since many acts have very specific—and frequently offbeat—demands to be catered to.

- **A&R.** Long thought to be one of the "glamor" jobs, the functions of an a&r man include seeking and signing new acts, finding material for artists already on the roster, scheduling studio time, and occasionally sitting in on recording sessions. "You should not limit your musical expertise to one area," says Jim Fishel, a&r manager at Columbia. "Everybody thinks that having this job is nothing but fun. It can be, but it's also a lot of hard work." Fishel's responsibilities cover thirty-five acts from different musical categories under contract to CBS.

- **Marketing.** The importance of this department cannot be overemphasized. In most cases, the merchandising, promotion, sales, customer services, and creative services operations all report to the vice president of marketing, who reports directly to the president. Functions of the marketing department include formulating retail and wholesale pricing policies and devising sales and dealer incentive programs (buy 100 singles, get 10 free). This is also where consumer buying habits are researched and analyzed to determine product effectiveness and, eventually, what is to be released. Budgets for all marketing services are reviewed here as well, so if you like numbers and lust for power this could be your calling. A master's degree in business wouldn't hurt.

- **Merchandising.** The functions here are similar to those of the merchandising department at, for instance, Colgate Palmolive. The mission is to continually devise better ways to turn the consumer on to the product. The methods include in-store displays, browser bins, T-shirts, contest giveaways, and commercials.

- **Promotion.** Behind the doors of these offices sit the resident storm troopers—the people whose job it is to persuade local radio stations to broadcast their label's product. It's not unusual for promotion men to ride hot-air balloons, deliver twelve-foot hero sandwiches to a station, or ride through town in a coffin and hearse just to plug a record. If you're interested in this kind of work, it helps to be extremely outgoing, if not a little crazy.

- **Sales.** The main worry here is meeting the monthly quota of product to be sold to record stores, which is to say that a high stress threshold is a necessity. Take for example Capitol's Cora Cataffo, one of the few women you'll find in this area. Her monthly quota is approximately $200,000 wholesale. It can run higher at other labels.

- **Customer Service.** This department is generally considered a stepping stone to the sales force. Staffers here assist salesmen by visiting record store accounts and setting up displays.

- **Art and Creative Services.** A strong grounding in commercial art is a prerequisite. Graphics for LP covers, television and radio commercials, print advertising, packaging, and store displays are among the responsibilities.

- **International.** Companies like CBS, WEA, RCA, Polygram, and ABC have extensive international operations. They are organized in much the same way as the domestic end and staffed mainly by citizens of the country in which they are located. On the home front, the international department may comprise up to fifty people. CBS, for instance, has approximately that number in its New York office, including secretarial positions. The division oversees some forty CBS subsidiaries around the world. Opportunities also exist at smaller labels for international representatives—the people who help set up and oversee foreign licensing deals. But the majority of international business is handled by the conglomerates.

- **Record Production and Engineering.** While many discs are recorded by independent producers and engineers, several manufacturers still maintain in-house positions. A strong track record is required. Don't expect any on-the-job training. (See *Backbeat*, July 1977, for a listing of academic courses in audio.)

- **Legal.** Sharp attorneys knowledgeable in contract and copyright law—among other facets of the industry—are always in demand. Advice from Don Biederman, once general counsel for the CBS Records Group and now vice president of legal affairs and administration at ABC, is that, before you look for a position with a major label, "try and get with an outside firm where experienced lawyers teach you the ropes."

Other jobs in administration, accounting, personnel, computer programming, security, record pressing, and distribution—while similar to those found at any modern corporation—should not be overlooked as vehicles to bring you closer to your goal. Remember Reno's start in the stock-room!

So much for what's behind the door. What about getting in? First of all, if you're black or a woman, you can count on a head start for your white/male counterparts. Corporate quotas notwithstanding, there's still a whole lot of room for improvement. Generally, women in the business are not only paid less, but also have less access to positions of power. Most women executives are in the publicity department, though it's not unusual to find that their boss is a man. While men may get their start here, they usually move up and out pretty quickly.

Among the exceptions to the women in publicity rule are Joan Bullard, vice president of press and artist relations for MCA in Los Angeles; Bunny Freidus, vice president of marketing services for CBS Records International in New York; Scott Mampe, head of classical a&r for Philips in New York; Teresa Sterne, director of Nonesuch records; and Cora Cataffo, salesperson for Capitol in New York.

Breaking into the music business can be "terribly difficult," says Bullard, who got her start in television

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June 1978
promotion at a station in Syracuse. "But I can honestly say that I never felt discriminated against." Cataffo, on the other hand, says that she had to fight her way from customer services (which came via a friend’s referral) into her current job. "They kept passing me over for men, until I demanded a chance to sell." It took her four years to get the chance, and once she did she still had to "turn heads around" because most label accounts weren’t used to dealing with a woman. Capitol’s O’Connor agrees that “it’s easier for men to start and to move up faster.”

Stevie Wonder, Maurice White, or Diana Ross can command multimillion-dollar contracts, but within record companies, by and large the real power lies in white hands. Still, recent years have seen increased administrative opportunities for blacks because of stronger sales in the inner-city areas. “Labels need more blacks on staff,” says RCA’s Jerome Gaspar, “because they are more attuned to what’s happening in the community.”

While Gaspar admits that as a black it probably took him a “little longer” to get where he is today, his love of the business is a strong lesson for any newcomer, black or white. He started as a go-fer at Associated Recording Studios in New York in 1961, the job the Boys’ Club set him up for. Jerry Samuels, also known as Napoleon XIV of They’re Coming to Take Me Away fame, gave him his first shot at learning to use the console, and from on-the-job training at Associated, Gaspar moved on to engineering jobs at Columbia and Atlantic. He then went out on his own as an independent producer and engineer and eventually landed his current gig at RCA. His advice for the novice: “I suggest the old-fashioned way: Get a job in a studio—a small operation where someone can take the time to teach you.”

Michael Klenfner, thirty-one-year-old senior vice president and assistant to the president at Atlantic, is another who came up the old-fashioned way. He combined going to school with working in a New York disco and sweeping the stage at the old Fillmore East (where he later became stage manager). After he graduated he landed a job as special programs director for WNEW-FM. Arista president Clive Davis (then president of CBS Records) then hired him as the first full-time FM promotion man at Columbia, and Klenfner later followed Davis to Arista as his national promotion man. His key to success: “You have to work twenty hours a day. Stay abreast, keep ahead, and don’t stick your nose in the air. Keep your eyes and ears open, and don’t be afraid when some young kid stops you on the street to talk music.” Klenfner’s eyes-open approach is undoubtedly something he inherited from Davis: When Clive was a young attorney at CBS, he used to go to King Karol records and stand by the cash register to see what kinds of records people were buying.

Starting the climb and staying with it will require energy and persistence on your part. Learn the business by reading the trades (Billboard, Record World, Cashbox, and Radio & Records), and stay with the music by listening to the radio. Once you’re equipped, you’ll be ready for the first rung. Here are a few to try for. If you’re a college student, inquire at CBS or Warner Bros. about working as a campus representative. These are the people who promote on-campus concerts through local or campus radio stations, setting up displays in the bookstore, etc. It’s not unusual for a campus rep to be hired by a label after he graduates. Speaking of radio stations, if your school has one, it would be worth getting involved in it. Also, contact the National Entertainment Campus Activities Association (NECAA), an organization that promotes live concerts on campus. It’s run for and by students. Reviewing concerts or records for your school or local newspaper is another entrée to the business. Send your clippings to the artist’s record label (attention publicity department) and let them know who
are. Be persistent, but not too pushy. You don’t work for the New York Times—yet.

If you can’t get a job at a label, get one at your local record store full-time, part-time, summertime—whatever you can come up with. You can make some good label contacts with customer service reps, salesmen, promotion people, etc. Working at the retail level is also a good way to learn the business. And, since you’re reading the trades for the same purpose, you might try contacting them to see if they need a local stringer (free-lance writer) to supply retail news or concert reviews.

Some major labels, CBS among them, have minority training programs during the summer months. So does the National Association of Recording Arts and Sciences (NARAS), the folks who award the Grammys. If you don’t qualify as a minority student, you might have a chance for a summer internship. Inquire by writing to the main office.

If you’re in your thirties or older, it’s going to be rough getting started, unless you know somebody or are qualified for a managerial job. Labels prefer to start people at the bottom, and odds are that, if you’re attempting a career change, you’ll be told that you are overqualified.

But use your imagination. Record companies are linked to a host of outside operations and organizations: music publishers, recording equipment and tape suppliers, typesetters, messenger services, you name it. Above all, keep in touch with the music. It’s the reason you want the job in the first place, and it could be your strongest selling point in the end.
Rhodes Suitcase Piano Set, 73-Key. The Rhodes electric piano is a standard of the music industry—in fact, the manufacturer proudly boasts that the majority of hit records in 1977 were recorded with Rhodes pianos. Every recording studio I've ever been in has one, and it can be a lifesaver when it comes to adding color to an otherwise bland arrangement. But I'm afraid that old devil Progress is up to his tricks again, for the new Rhodes Suitcase Piano, to my taste, is generally inferior to previous models.

A couple of improvements are worth noting. The power-supply section on the side of the speaker cabinet has two pairs of jacks each for preamp out and power amp in, allowing the user several options. First, the stereo signal from the piano may be fed to another amplification system and to its own internal power amp simultaneously, since the preamp outputs are parallel (mults). Second, the power-amp section may be used independent of the piano, providing a satellite amp cabinet for another instrument. Additionally, these jacks can be used as effects sends and returns when patching to graphic equalizers, phasers, etc. (The front panel has two accessory jacks just for this purpose.) Of course, preamp out is still handy for direct feed in recording; the connecting cable from piano to electronics has been changed to a more accessible Switchcraft A-5M—a five-pin XLR-style connector.

The preamp/cable jack, volume control, and the ¼-inch phone jacks (accessory 1 and 2) on the front panel are essentially the same as on older models, with a red LED added nearby to indicate power status. The major change up front is in the tone-control section. Rather than the two concentric knobs for treble and bass, there are two sliders. The pull-on dual concentric pot arrangement for vibrato has been replaced by a toggle switch and two separate rotary pots for speed and intensity. An LED in this section blinks to indicate vibrato speed.

So what's disappointing? LEDs are hip this year: so are sliders for tone controls—that graphic-equalizer look. But the LEDs appear to be primarily a cosmetic consideration. If you're using vibrato, you can hear the effect shifting back and forth, and if you're playing a piano, do you really need to know it's on? They do have their uses, of course: You can set (or reset) the vibrato rate by eye to some extent before beginning to play, and the power-status light at least assures you that you haven't tripped the circuit breaker. But in my view they are more cosmetic than functional. And though slide pots are not inherently better or worse than rotary pots, these are definitely inferior in quality to the older controls.

It is difficult, for instance, to achieve a clear treble sound without moving the bass to -5, the end of its travel. We tried to get that standard Rhodes "punch," but when we brought up the bass, what we got was a vague thud. Moving the treble control below its midpoint makes the piano sound like it is under a pile of blankets. Setting both controls at 0 (normal), however, does yield a satisfactory sound and changes the character of the vibrato. What used to be a mellow sweep from channel to channel (no matter at what speed) is now a mechanical shift.

This may be a small point to the average listener, but to a pianist it can be unnerving. The action is essentially even, though the players felt that they needed to hit a bit harder than usual to get the sound they liked.

Lest I be accused of comparing this new model with one old favorite, Rhodeses of every description come to our studio on rentals almost every week. I've played at least a dozen of them and recorded even more. While this one does record well and is not at all noisy, for me it just doesn't measure up to its relatives.

Don't get me wrong. The new Rhodes is, nonetheless, a good electric piano. Cost of this model is $1,425. It is a durable, portable, and flexible instrument whose characteristic sound will always be a vital part of American music. Still, as Billy Joel says on his record that opens with a solo on a you-know-what, "Don't go changin' to try and please me/you never let me down before... I'll take you just the way you are." FRED MILLER

Sony ECM-56F Back Electret Condenser Mike. Modern microphone design is basically a question of refinements. No really new method of converting sound waves into signal has been developed since the electret phenomenon was applied to that of condenser mikes in the mid-Sixties. The electret's permanent charge for the variable capacitor that forms the sound-detecting element allowed considerable simplification of condenser systems. A good mike could be offered at a lower price, with the power for the still-necessary internal preamplifier easily provided by a small battery.

Electret condenser mikes soon joined the ranks of successful commercial products. Did they eat up all the other types? Well, no. Nothing is ever perfect, and the "permanent charge" turns out to be not

© 1977 Joel songs. BMI
Sony ECM-56F Back Electret

so permanent after all. More than 140 degrees F. of heat will partially or completely discharge the element, leaving you with an expensive paperweight. So will raw sunlight and, in the earlier examples, shock. The materials that will accept a charge don't make very good microphone diaphragms when compared with the more conventional non-chargeable films. The electret diaphragms turned out to be heavier and more "rubbery," compromising transient response and overload capability. The disadvantages did not completely scuttle the concept, however. Low cost, small size, and simple battery operation are just the ticket for voice pickup, and you can see this type of microphone is a moderate 54 dB (below 1 mW/10 microbar at 1 kHz).

Sony Corporation has come up with a practical improvement in the use of the electret effect by applying the permanent charge to the inside of the capacitive element. Charging the stationary back plate has permitted the use of the same diaphragm materials that are found in regular condenser mikes: it also protects the charged surface from effects of ultraviolet radiation. We are now a little closer to the ideal.

The ECM-56F Back Electret Condenser microphone is designed for serious recording. Either a 9-volt battery or phantom power (24 to 48 volts) will operate the internal preamplifier. An LED indicator is provided for battery operation, and expected battery life is 400 hours with a regular cell, 600 with a mercury cell. The switch on the housing has three positions: off, m (full range), and v, the last of which provides a low-frequency rolloff useful for working very close to the sound source. An 8-dB pad switch to prevent overload is located inside the battery compartment, accessible via the bottom half of the microphone housing; a plastic ring around the inside thread prevents complete removal, so you can't lose it. The 20-foot cable is permanently mounted. The rated sensitivity is a moderate -54 dB (below 1 mW/10 microbar at 1 kHz).

So much for the nuts and bolts. How does it sound? Sony talks of "professional studio" quality, so that's where we went for some listening tests. In direct comparison with several studio-phenom mikes the ECM-56F got a little out of breath but finished respectably—if not in first place. It has that characteristic Sony "smooth as silk" quality. No roughness or graininess is apparent on voice or guitar, and the output does not roll off at very high frequencies. The mike keeps going well past 10 kHz, which is no mean feat for any mike, regardless of price.

On percussive transients the mike is not so good, outstripped by all of the condensers we compared it with. One dynamic (AKG 224E) beat it out as well, but admittedly not by very much. Some of this lack of punch in the range around 2 or 3 kHz may reflect company policy, as all Sony condensers except the "tie tack" miniatures suffer somewhat in this way, and it probably is a result of the designers' attempts to produce a smoother-looking frequency-response curve. The combination of these two characteristics—superb top end and mellow midrange—would make this mike a good choice for solo violin. You'll get lots of "air" and a mild suppression of the harshness one encounters on close-miked fiddle.

As for the pattern, or directivity, all condenser mikes have trouble rejecting high-frequency sound arriving from the rear. Even such otherwise faultless mikes as the Neumann U-87 show some degradation of pattern at 10 kHz, but not like this. The ECM-56F is practically omnidirectional at 10 kHz. Sounds arriving from the rear are rejected fairly well in the bass and midrange, but the cymbals will be alive and well on the guitar track unless stern measures are taken to isolate a guitarist when using this mike.

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"Earth" is a blimp of banality, inflated with the self-satisfaction of the Jefferson Starship's revitalized superstardom. Technically, it sounds very good: Production is crisply textured, Craig Chaquico's lead guitar gleams with wit and easy strength, and the vocals by Grace Slick and Marty Balin are skillfully delirious, wrapped in a self-aborption that conceals the lyrics' absence of thought. And the expansive dreamy ballads and ornate, impassioned rockers that fall somewhere between Fleetwood Mac and disco place the band in an exemplary commercial location, while still leaving their early '70s philosophical integrity unsullied.

The crucial difference between the Starship's last three albums—"Red Octopus," "Spitfire," and now "Earth"—and their earlier releases is tighter production and a cleaning up and shaving off of the rev-up, garrulous instrumentals. But a good sound does not a good record make. Although the band's melodic ideas have been freshened and updated with the addition of youngsters Chaquico, drummer John Barbata, and bassist Pete Sears, most of this album's tunes either play it safe by evoking the successes of their two previous best-sellers, or begin promisingly and disintegrate into tedious repetition. Only the surprising, funny bridge in Runaway and Chaquico's Skateboard have genuine rushes of rock energy, something that the Starship has achieved with less and less frequency since Volunteers in early 1970. Indeed, the weakest number on "Earth" is a rock blowout, All Nite Long, a group collaboration that has even less purpose and less melody than usual.

Certainly rock & roll is no longer the band's primary objective. It is their ballads—Miracles, With Your Love—that have put them atop the charts, and "Earth" finds them pursuing the form with obsessed, occasionally amusing, determination. "You gotta/Love too good/For a woman like me, baby" (Love Too Good), asserts Slick in her magnetic power-croon that conveys a fine will to prevail. Over what she is prevailing is never explained, of course, but it sounds good. Similarly, Balin imbues the cracked phrases of Fire with a surge so gloriously bathetic that he transcends his composition's rapid, tired metaphor of my-heart's-on-you-know-what.

The Starship, Slick, and especially Kantner have never been long on logic or form. Perhaps this can be attributed to their permissive upbringing: When the Airplane was launched in 1965, the explosive combination of what came to be an indigenous San Francisco hard-rock guitar style plus the lubricant of LSD gave new meaning to the word "heady." Like their neighbors in time and space, the "beat" poets, bands like the Airplane, the Grateful Dead, and Country Joe and the Fish accepted the aesthetic that Allen Ginsberg most succinctly expressed as "First thought, best thought"—the notion that whatever popped into one's mind at the moment of composition was the most "honest" (an important '60s code word) expression possible. Even if the Airplane did not actually compose in this manner, their lyrics certainly read like it. This helps to explain all the soupy-headed rhetoric and inane emotionalism that poured forth from the Airplane/Starship, whose distinguishing feature was the equally ill-expressed science-fiction mongering inspired mostly by Paul Kantner. Hence, their old albums have aged badly.

By now, though, the politics are only implicit in their tales of Starship Utopia. (See any of their recent long songs, like All Nite Long from "Earth" and Song to the Sun from "Spitfire"). Radicalism has given way to a still hippieish, but less militant, Universal Ecology party line.

Jefferson Starship is, in short, a mess,
albeit a cheerful one. "Earth" reaffirms that the musical powers of Slick. Balin. and Kantner are undiminished. After thirteen years, they are such professional music-makers that the mess sounds to sympathetic ears, like eclecticism. This album's worst sin is its lack of forthrightness: their usual chaos has been carefully organized so as to be a huge-selling holding action, with a minimum of chances taken. Even if you've never been very fond of their music, you could always rely on the Starship to be gloriously foolhardy. You can't count on that anymore.


Moe Bandy is one of the last of the hard-edged country singers. He takes his pathos straight, no chaser, and paints a world in which heartache and beer are the two basic and mystical elements. His first hit, I Just Started Hatin' Cheatin' Songs Today, is one of the seediest, most chilling records I've ever heard, and though something resembling fame has mollified him somewhat, the fire still smolders—bless his sawdust soul.

Bandy's favorite subject is despair, elusive salvation. Paper Chains ("all we have in common is our name") and A Wound Time Can't Erase (a hit for Stonewall Jackson in 1962) are about poison marriages. If She Keeps Loving Me is about the Other Woman, who awaits him in an alley named Sin. Soft Lights and Hard Country Music is a sort of anthem of hopelessness: God is dead, but beer is not. Bandy can even transform a pair of happy songs, Darling, Will You Marry Me Again and A Baby and a Sewing Machine (which does not, as the title might suggest, concern itself with a bizarre mutilation), into something resembling fame has mollified him somewhat. The fire still smolders—bless his sawdust soul.

The high point here is a reworking of Jimmy Work's immortal That's What Makes the Jukebox Play, a song that sort of sweeps the human race into a large mud puddle. But the complaints raised against Bandy's recent work still hold. Ray Baker, one of the most capable producers in Nashville, should lessen the sugar in the arrangements. And using Charlie McCoy on a Bandy session is like casting Sandy Duncan in a Don Siegel movie. The bottom line, however, is that when it comes to rotgut country. Bandy's one of the last in town.

On his debut album—last year's "Fundamental Roll"—Walter Egan conveyed a contemporary adolescent's state of mind that overflowed with thwarted desires, rebellious impulses, and extravagant emotionalism. He sounded so involved that it was impossible to determine whether he was an artist capable of recalling any musical roots or merely an arrested teenager with a knack for hooks. On his second album, one discovers that the adolescent mind was not his after all. "Not Shy" is the work of a mordant, intelligent rock-adorer, one who employs his nostalgia in the service of impressionistic detail.

The teen evocations include Finally Find a Girlfriend and The Blonde in the Blue T-Bird, whose pumping pop/rock is sped along by Egan's keening lead guitar and cultivated yelping voice. Both of his albums have a pleasing brittleness, with sharp vocals gliding atop sharper guitar. Sickness is avoided by the moist thump of Mike Huey's drums, and the result is a tension that heightens the drama of Egan's little sagas.

Even more stylistically interesting is his use of female voices. Many of the melodies are shared with Stevie Nicks and Annie McLoone, a new member of Egan's band. Both sing his first-person stories as if they were their own, and on songs like I Wannit and Finally Find a Girlfriend what could have been bratty selfishness—Walter wants his own way and he'll cry if he doesn't get it—is lifted into a shared vision of what it's like to experience powerful yearnings as a powerless youth. Egan's pointed insincerity on having women sing these sentiments shows more empathy for women, even identification with them, than any other male Californian would—superstar I can think of. Within the context of snappy, AM-aimed rock & roll, he has managed to accomplish a great deal. K.T.


In his way, Nick Lowe has mastered his own little amusingly reactionary revolution. As producer of Graham Parker, the Damned, and Elvis Costello, and now as complete auteur of "Pure Pop for Now People," he has advocated a rough, tight sound that harks back to rockabilly spirit and methods: a couple of guitars, bass, and drums. Overdubbing is rare, and his favorite studio trick is the good old echo chamber. The songs are short, their lyrics terse. The difference between Lowe's pop and yesterday's rock & roll is self-consciousness.
He must strive concertedly to get the only sound that Carl Perkins et al. could produce. With "Pure Pop" he succeeds at this; he has made an album that is both brainy and visceral.

"Second Wind" is McClinton's first album for Capricorn, and it is by far his most balanced and powerful work to date. Johnny Sandlin, the producer, felt that even, that will change, and the tersely titled "Second Wind" seems as good a trigger for it as any.

Maria Muldaur's return to recording, after a two-year absence, finds her teamed with producer Christopher Bond, best known for his work with Daryl Hall and John Oates. While the result is probably her slickest album ever, a significant question presents itself: Was the world waiting for a slick Muldaur album? Probably not, the way I hear things. Much of the material here sounds as though Bond and the rhythm section toiled for months, getting every little whomp! and boom! straight, and then called in Muldaur to overdub her vocals. Disco isn't her strong suit, nor is shouting triggered for it as any.

There are a couple of exceptions, of course. She gives a sinewy reading to Rory Block's I Got a Man, rides with the infectious gospel feeling of My Sisters and Brothers, and treats J. J. Cale's Cajun Moon with respect. And her rendering of Bobby Bland's 1963 hit That's the Way Love Is simply roars, only to be sabotaged by a vocal chorus needlessly shouting things like "sho' nuff" in the background.

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McClinton's entitled to experiment all she wants to, and it's true that she has never really recaptured the success of Midnight at the Oasis. But it's a shame to see a fine jazz and blues singer waste her time (and ours) on something that could be done just as well by many others, particularly when there's so little competition in the styles most comfortable to her.
Lou Reed: Street Hassle. Lou Reed & Richard Robinson, producers. Arista AB 4169, $7.98. Tape: ATC 4169, AT 78 4169, $7.98.


It seems appropriate that within one week of one another Lou Reed and Patti Smith both released Arista albums that bear heavy crosses suited to the rebirth rituals of spring. They are, after all, the spiritual godparents of New York City's musical avant-garde. Both are published poets and both are deliberately androgynous yet deeply sexual beings who would rather shake up an audience than merely entertain it. "Street Hassle" and "Easter" share several characteristics, the most evident being their creators' obsessions with keeping an eye to their pasts. However, the buried points have landed on their targets with varying degrees of accuracy.

Lou Reed offers a clue to his direction on "I Wanna Be Black," when, in the midst of sarcastically cataloging the black sleaze-radical mythology, he declares, "I don't wanna be a f-ed up middle-class student any more." That's what he was in the Sixties when he came home to New York to found the Velvet Underground. With this album, he summons up the ghosts of that band more directly than on any of his numerous other recordings of the past decade.

The brilliantly painful epic-length pieces of the Velvets were often off-key, simply because no one felt any need for discipline. After splitting with the group, Reed concentrated on writing and singing tightly framed rock & roll songs, documenting at a careful distance the curious characters who populated "the wild side." With "Street Hassle" he has let fly his objectivity and returned to personal involvement, talking through such songs as the title cut, which feels very similar to the Velvet's Heroin and Sister Ray.

Unfortunately, his admirable aim to break off the shackles of commerciality is sabotaged by an ungainly band and the consequences of binaural recording. The studio cuts resemble a poorly miked live recording, and the live cuts, recorded in Germany, don't sound so hot either. Too often Reed appears to be distortion his voice for effect: On Real Good Time Together, which I've heard him play live with control and forthrightness, he slops out the vocals and drowns in his

Continued on page 131
Formerly known as the foot soldier of the eight-track cartridge, the sax player’s flamboyance. I was wrong in assuming from a recent live appearance that the band’s shuck’n’jive was due to lack of rehearsal. With “Street Hassle” we see that the lack of coordination is deliberate.

While “Street Hassle” is a well-intended experiment, “Easter” is Patti Smith’s most complete success to date. Everything is in fighting condition—her voice, her writing, her band (which shows great improvement) — and it’s all put together with crystal-clear production by Jimmy Iovine. A collaboration with Bruce Springsteen. Because the Night, may give Patti her first Top 40 hit thanks to its memorable hooks and the way she holds that often free-ranging voice tightly in check, even as she howls to fit the love agonies the song describes. But if Because is the LP’s most accessible statement, the rest of her pieces will still set your toes tapping while your mind races to keep up with her thoughts.

Patti’s sources are intermingled—halucinogenic nineteenth-century French poetry with hard-core rock & roll. She taps both on “Easter” and strengthens them with the mysticism she finds in religion. From a hurried reading of the Twenty-Third Psalm she segues into Privilege (Set Me Free)—the title track. From a film about the programming of a rock idol into a religious martyr—venting frustration with her refrain of “I’m so young, so goddamn young.” Bruce Brody’s keyboards are a wise addition to her longtime band and provide a rhythm section. Rico Rodriguez has long been a creator of that sound and is known to be driven crazy by the apparent monotony of it all—only to discover that what they are crazy about is the music itself.

“Man from Wareika” has its flaws: The second track on Side 1 is all too aptly named Ramble. But there are fine solos by Rico, and by other horns as well—in fact a few more wouldn’t have hurt. Then again, this is authentic reggae, not a jazz-reggae hybrid. and the idiosyncrasies go with the style.

Shaw—a narrow victory

Continued on page 133
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Lee Clayton and His Grin of Wrath
by Nick Tosches

Five years ago Lee Clayton made an album for MCA. The album was virtually unnoticed, and Clayton left Nashville for the Western desert, where he lived in solitude, smoking Camels and thinking pernicious thoughts. Back in Nashville, the ignored seeds of his album began to blossom: Waylon Jennings' version of his song *Ladies Love Outlaws* became the birth-scream of a style that would soon take country music by the throat. By the time Clayton returned, country was infested with Outlaws—most of whom, two years before, could have passed for Junior Chamber of Commerce boosters from Knoxville. So Clayton shaved his sideburns and grinned his lovely grin of wrath.

His second album, *Border Affair* (Capitol), is not merely the best to come out of Nashville so far this year, it is one of the finest albums to ever come out of the South.

Nashville is a place that thrives on mediocrity. In Nashville, one may be applauded for taking the stage in a simulated state of public drunkenness and rhyming "feelin' free" with "Tennessee." Lee Clayton resides in Nashville, but he is not of it. His album contains only one reference to Outlawry (in *My True Love*), and after a few hearings that reference becomes a self-mortification, a dirty joke. The only song here about Nashville, *If You Can Touch Her at All*, is an oblique, murderous indictment of the Nashville Girl, an indictment that Jim Morrison, creator of *L.A. Woman*, would have vastly enjoyed.

That is the obsession of "Border Affair": women. There are women as saviors, in *My Woman My Love* and *Rainbow in the Sky*; women as destroyers in *If You Can Touch Her at All*; women as goddesses in *Silver Stallion*; women as bitches in *Border Affair*. Clayton's is a fine obsession, sometimes scary but always mesmerizing. There are no clichés in his adoration, no moral restraints in his vengeance.

But the album's most haunting, powerful moments occur in two songs that deal not with women but with strength and weakness—*Like a Diamond* and *Tequila Is Addictive*. The former describes an existence of lonely dancing "between Jesus and the Devil"; the latter is simply the most awesome drinking song since Ernest Tubb's 1949 recording of *Warm Red Wine*. To hear Clayton defend the rivery stuff that will "kill me and rot out the base of my brain, and leave me crazy staring at the wall" is to feel the space that lies between himself and whoever else is making records in Nashville today. Burn, Luckenbach, burn.

lousy. Rhythm of Love—a frothy, bouncy number that is ideal for jazz-oriented pop singers—has a vivacity and charm just the right side of cute. I'm Back for More develops from a marvelously silly a cappella intro into a delightful melody that is given a wholehearted, driving treatment. And Mambo Tried is a marvelous evocation of classic gospel singing and playing.

The rest of the tracks range from agreeable to tiresome. You've heard these bump-bump disco losers, blah ballads, and King Frog arrangements a hundred times before. The crucial question is will Marlena Shaw do well enough to be allowed more originality next time or badly enough to end up on a label that can't afford to laminate its artists? Or will—God forbid—one of the dreamer tracks here take off and commit her to a future of pap, as happened to Donna Summer?

Allen Toussaint: Motion. Jerry Wexler, producer. Warner Bros. BSK 3142, $7.98. Tape: ** M5 3142, **M8 3142, $7.98.

Lee Dorsey: Night People. Allen Toussaint, producer. ABC AA 1048, $7.98. Tape: ** S 1048 AB, **8 1048 AB, $7.98.

This is Allen Toussaint's fifth album and his first to be produced by an outsider. For that task Warner Bros. commissioned resident funk and soul maven Jerry Wexler, who—perhaps because he doesn't like New Orleans' damp, warm climate—brought Toussaint to Los Angeles to record with local session musicians. In some ways the result is similar to what might happen if Bob Marley were to record in Detroit. The musicians are capable enough, even very good at what they do. But Toussaint's music is so special to a particular region that moving him out of it and away from players who can handle the mood and the beat does him a severe disservice.

It's a nice album, probably the composer/singer/pianist/producer's best since his early '70s Scepter release, "From a Whisper to a Scream." But it doesn't have much to do with New Orleans, and that's a shame.

From a songwriting standpoint, there are a couple of potential standards. Lover of Love, a pretty, moving ballad that didn't get much chance in its first incarnation by Meters pianist Art Neville on the Cinderella label, sounds fine here. The Optimism Blues is the kind of sardonically cheerful song that Toussaint used to whip up for Lee Dorsey and Ernie K-Doe, and others—like Robert Palmer or Joe Cocker or Frankie Miller—could do it up almost as nicely as the composer does here. And, though it misses the characteristic New Orleans syncopation, the rhythm section creates one of the strongest grooves you're ever likely to hear on Night People.

That song is also the title cut on Lee Dorsey's latest, produced and written by Toussaint. He has drawn his backup musicians from Chocolate Milk, a New Orleans band that he produces for RCA. They have the syncopation, and a comparative listening to Dorsey's and Toussaint's reading of Night People will tell you all you need to know about that. The album as a whole is a letdown from Dorsey's release on Polydor a few years ago ("Yes I Can"), which brought us Yes We Can, Occappella, Riverboat, and Sneakin' Sally Through the Alley, among other classics. Still, it's Toussaint's most commercial—and most interesting—production since then. Dorsey is in fine shape for the bouncy, frequently humorous songs. He brings a biting dimension.

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Dorsey—a welcome comeback

Toussaint—New Orleans is missing

June 1978
R&B

BY JOHN STORM ROBERTS


These young people, depicted on the cover worshipping what must be the Great Bullet in the Sky, are a funk-fusion bunch out of Detroit. They're a little lighter on the solar plexus than, say, Brass Construction but with the same general mix of tracks. When they—or their producer—forget about Outreach, they have a nice easy get-down drive, though their lead singer doesn't have the versatility to fill the space she's given.


Now, here's a man who can carry a song. Nothing here you haven't heard a hundred times before, but nothing that can't stand the repetition, since it's so well done. This is classic gospel/soul singing from a big voice that carries a slow number as intensely as a fast one. Making an old theme or hackneyed line sound like new is getting to be the most important of talents in this business.

Lawrence Hilton-Jacobs. La-mont Dozier, producer. ABC AA 1045, $7.98. Tape: 5 1045A B, 8 1045A B, $7.98.

What I want to know is why this cat's navel is all fuzzed out on the cover. Can't be because of the teenyboppers—my daughter has one. Maybe he doesn't really have one? Maybe. The music? Oh, that. Well, Jacobs doesn't sing any worse than most of the other losers clogging the airwaves, and Dozier's production is—well, safe. But what bothers me is that navel.

The Salsoul Orchestra: Up the Yellow Brick Road. Vince Montana, Jr., producer. Salsoul SA 8500, $7.98. Tape: SC 8500, $8 8500, $7.98.

Some guys'll do anything for a laugh. Would you believe a discofied mix of Ease on Down the Road, Sgt. Pepper's Lonely Hearts Club Band, love theme from A Star Is Born, and medleys from Fiddler on the Roof and West Side Story? The sad thing is there are all sorts of little touches that suggest Montana could do something really nice if he forgot about proving people can play as predictably as computers. Still, you have to hand it to the man: Fiddler on the Roof disco—that's chutzpah!


The noise on this album is space travel, though it sounds more like a bee trapped in the studio. Pity about that, for when it quiets down there are some tight and original vocals and instrumental solos, ranking "Voyager" high in an admittedly limp bunch. But the music's good enough—it doesn't need the kitsch from outer space.
Michael Franks: Burchfield Nines.
Tommy LiPuma, producer. Warner Bros. BSK 3167, $7.98. Tape: M5 3167, M8 3167, $7.98.

There was always the risk, with Michael Franks's fragile writing style, that the delicate balance between friskiness and preciosity would break down. It comes pretty close to doing that on this new collection—pretty close to being too cute for its own good.

Franks generally depends on strong jazz support to make his tunes work. No complaints here on that count: The New York rhythm team of bassist Will Lee, pianist Leon Pendarvis, guitarist John Tropea, and drummer Steve Gadd provides the kind of tough, gutsy counterpoint his material needs. Yet despite faultless backgrounds, that material feels too lightweight. The parallelism of When the Cookie Jar Is Empty, for example, never works the way it should; the lyrics on A Robinsong and Vivaldi's Song, despite the latter's inventive music, are sappy; other songs are plagued with coyness—"Don't panic—we're Pure Organic" and "You taught me One/Is much more than Two."

When Franks hits his pace—as in Wrestle a Live Nude Girl, Burchfield Nines, and Meet Me in the Deepark—he is still one of our more inspired jazz-based songwriters. He just doesn't hit his pace often enough this time.

The Lee Konitz Quintet. Hank O'Neal, producer. Chiaroscuro CR 166, $7.98.

Put Lee Konitz in a two-saxophone situation and you can count on hearing echoes of the late-'40s Lennie Tristano-Konitz-Warne Marsh sound. Konitz is teamed here with Bob Mover, both of them on alto. The expected Tristanoisms show up—directly in Tristano's tune Lennie-Bird, and in Hi Beck by Tristano sideman Billy Bauer.

But this is much more than a nostalgic look at the '40s. It is, essentially, an ex-

Continued on page 139
HIGH FIDELITY MAGAZINE

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Jazz

BY DON HECKMAN & JOHN S. WILSON


A welcome recording. Bley is one of the few pianists working in the contemporary avant-garde who can bring the necessary historical overview to a solo program. He literally runs the gamut in this remarkable recording—from ragtime to his own completely personal look at jazz in the Seventies. High spots are a sixteen minute improvisation on his Axis, a superb exploration of Gershwin's Porgy, and a fascinating piece by William Lawsha called Music Matador. D.H.

Jackie Cain & Roy Kral: Concerts by the Sea. Roy Kral & Dennis Smith, producers. Studio 7 Records ST 7-402, $6.98

Jackie Cain and Roy Kral continue to produce energetic, vital, contemporary music in the scat style they have been singing for thirty years. This live recording from a Los Angeles nightclub contains a few well-chosen standards like Cheerful Little Earful, Born to Be Blue (a beautiful solo by Jackie) and Who Cares: some obscure, but delightful special material like André and Dory Previn's Rum around, and a lively seasoning of jazz lines like Tiny Kahn's classic Tiny Told Me. Good stuff, all of it. D.H.


Under Jim Cullum Jr., San Antonio's Happy Jazz Band is moving away from stereotyped traditional jazz performances. With some interesting arrangements by pianist Cliff Gillette, it explores Ellington (The Mooche), Waller (Lonesome Me), and Rodgers and Hart (Thou Swell). Eloquent clarinet work is provided by Allan Vaché and robust trombone by Randy Reinhart, but Gillette has been given a tinny piano that sounds as if it were dredged out of a turn of the century Texas honky-tonk. J.S.W.


This reissue is rich, full-flavored Chicago South Side jazz of the mid-'20s. Included here are some of Punch Miller's best recordings, three Jelly Roll Morton sides, several by Luis Russell, and a possible appearance by Dolly Jones—a woman who played cornet in the Armstrong style. Excellent transfers from 78s by Jerry Valburn. J.S.W.


The range of talents exhibited by Handy in this collection is almost mind-boggling. He sings like a balladeer on the title track and a talking blues man on Right There. Right There, he plays brilliant alto saxophone and saxes improvisations, and he has written a far-ranging collection of songs. If anything, the very richness of the album is—like an overly tempting English trifle—too much to deal with. But Handy's talents are so vital that I am quite content to have too much rather than too little.

The Headhunters: Straight from the Gate. David Robinson, the Headhunters, & Fred Cather producers. Arista AB 4146, $7.98. Tape: ATC 4146, AT8 4146, $7.98.

The Headhunters have made their reputation as Herbie Hancock's back-up band. Individually, some have stepped aside from burgeoning solo careers (saxophonist Bennie Maupin is a good example) in favor of the rewards of jazz/rock crossover ensemble work. I only wish some musical rewards were apparent. As with much of the crossover product one hears these days, some superb bits and fragments occasionally emerge. But the repetitious rhythms, over-emphasized bass solos, and silly tunes bury any possibility of musical creativity.


This Boston group is digging deeper into the traditional jazz repertory, coming up this time with a lovely King Oliver rarity. What Ya Want Me to Do, and making a slow, sinuous line of Clarence Williams' Papa De-Da-Da. Tony Pringle's cornet takes its proper place with the other first-rate frontline men here: Stan Vincent's trombone is in unusually blissful form, and Eli Newberger produces a pair of gloriously sonorous, gracefully ponderous tuba solos. J.S.W.


The performances of these stock '20s arrangements—though earnest and current—do not capture the freewheeling give-and-take of the bands of that era. There is a tenseness here. The readings are clean and precise, particularly in the reeds, but the tempos tend to be stodgy. And the loosening element of improvisation is provided only briefly by the solos of clarinetist Peter Farren and pianist Jim Dapogny. J.S.W.


A classically trained pianist with jazz experience is characteristically Dukish on Ellington (including a ten-minute New World A'Coming) and appropriately jazzy on Gershwin and impressionistic on Beiderbecke. But he can't quite loosen up enough to swing robustly on Johnson's rags or Bix's Davenport Blues. J.S.W.
exploration of the various ways in which two saxophones can be used in tandem.
A fascinating unaccompanied duet on Miles Davis' *Solar* has Konitz and Mover winding around each other like a pair of amorous snakes, developing a two-horn variation of what might be visible separate solos. They use much the same method with accompaniment (Ben Aranov on piano, Michael Moore on bass, and Jimmy Madison on drums) on Ellington's *I Didn't Know about You*, and it's instructive to hear the "snake" approach both with and without a rhythm section. Bill Evans' *Waltz for Debbie* is a more harmonically traditional blend that is bigger, fuller, and less intense. And, as if to set the scene for these variations on the duet form, Konitz opens the album with his own *Affinity*, a series of unaccompanied solos for each member of the group. It culminates in a slow dual saxophone wail that is unlike anything else the two horns do in the set.

This is a highly provocative collection, diluted only by the relatively light piano solos of Aranov. His normally positive attack seems diminished by the strength of both Konitz and Mover.

**Red Norvo Quintet: Red in New York.**
Harry Lim, producer. *Famous Door H.L. 116*, $7.98

Everything works on this record. Here is Red Norvo playing beautifully, surrounded by musicians whose mood and temper give him the kind of swinging setting in which he performs best. What's more, their soloing adds a quality that sustains the level Norvo establishes. This is, essentially, a glorious three-in-one bargain record—it is as much Dave McKenna's and Scott Hamilton's as it is Norvo's—with the rhythm section (Richard Davis on bass and Connie Kay on drums) and all of the frontline men playing in their most typical and effective manners.

McKenna gets off on some rumbling, barreling piano solos that pick up momentum and develop into exultantly roaring flight. Hamilton reiterates the impression he has made with earlier records—that he is creatively building on, rather than copying, the saxophone foundation that existed even before Charlie Parker came along. And Norvo continues to be one of the happiest performers in jazz. The twinkle in his eyes, the interested, quizzical grin with which he listens to his own playing are an extension of the sound of his vibes—light, airy, and gossamerlike, but insinuatingly rhythmic. Even on a gently phrased ballad—"Ghost of a Chance"—the mood is cheerfully wistful rather than torchily sad. That spirit is picked up by both Konitz and Hamilton, whose solos on this ballad bring out the positive beat that Norvo subtly established before them. The whole session has a relaxed feeling: Solos flow effortlessly and the ensembles come together with an air of inevitability. I wouldn't change a note on either side.

**Stanley Turrentine: West Side Highway.**
Stanley Turrentine, producer. *Fantasy F 9548*, $7.98. Tape: **$ 9548, **8 9548, $7.98

I suppose it's antediluvian to hark back to the days when Stanley Turrentine was a romping, blues-based tenor saxophone shouter. best known for his ability to make sense out of the tenor sax-organ-drums nightclub style. He is, after all, considerably more successful these days than he was then. But—wistful dreamer, I—a little bit of heart and soul has been lost in the process.

Fans of the more contemporary Turrentine won't find much to complain about with this new release. The sound is predictably thick, the rhythm as methodical as ever, and his improvisations are perfect for disco dancing, which is the closet culprit behind this style. And Turrentine can hardly go wrong with the musicians who back him: The lineup reads like a *Down Beat* all-star list, with names ranging from Ron Carter and Grady Tate to Jon Faddis and Hubert Laws. (Unfortunately we don't get to hear these players very often except in the context of Claus Ogerman's dense orchestrations.)

The only bright moment for this listener comes in Richard Carpenter's old jazz classic, *Walkin*, with its drifting memories of Miles Davis. Even here, however, the interpretation is dominated by commercial, rather than creative considerations. And that, as a matter of fact, is the story of the entire album.

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