

# Hifi Heretic

number thirteen

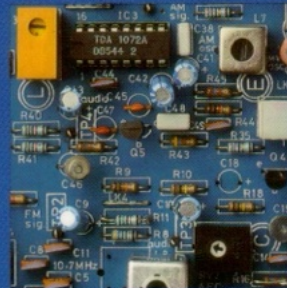
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# Hi-Fi Heretic

number thirteen

**Kent S. Bransford**  
*Editor and Publisher*

**Rob Doorack**  
**Anthony C. Chiarella**  
*Contributing Editors*

**David Cooper**  
**Hector G. La Torre**  
**Glenn Hammett**  
*Music Reviewers*

**Buck Turgidson**  
*Standing Erect*

**Gail Wynand**  
*You-Know-Who*

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**Allen Jones**  
Ashland, Virginia

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A Mine Shaft Gap  
Publication

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(714) 529-1167

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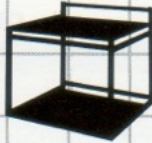
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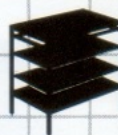
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**TT3 S**



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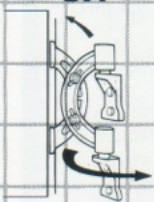
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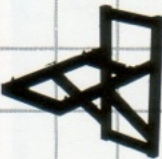
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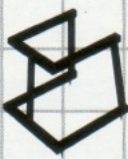
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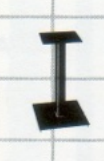
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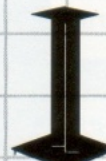
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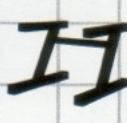
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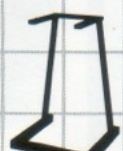
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## INTRODUCTION

As you can see, I've implemented a number of minor changes in the design and format of *Hi-Fi Heretic*. These have been done in the interests of making the magazine more readable and easier on the eye, as well as to rein in production costs that had become excessive.

Publishing a limited-circulation magazine is one of life's more idiotic pursuits. By its very nature, publishing is geared towards high-volume, mass-production operation. Allow me to explain. As with any manufacturing enterprise, publishing incurs both fixed costs and variable costs. *Fixed* costs are those that accrue regardless of how many units are produced. *Variable* costs are those that accrue in direct proportion to the number of units produced.

For example, a company that manufactures furniture might lease factory space in an industrial park. This would constitute a fixed cost. Regardless of how many (or how few) chairs they produce in a given month, their leasing costs remain the same. Conversely, the quantity of chairs produced would have a direct and obvious effect on how much wood the company bought each month. Such expenses are variable costs, as they fluctuate with the number of chairs manufactured.

In printing a magazine, the expenditures on paper, ink, press time, and binding are all variable costs. *Everything else involved in the production of a magazine is a fixed cost.* Whether you print 5000 copies or 500,000, the fixed costs are essentially the same. The writing of reviews and articles, the work on graphic design and layout, the making of color separations for the cover, the creation of negatives for each page of the magazine, the stripping up of these negatives, the burning of plates for the printing press — *all of this costs the same regardless of how many copies are printed.*

## The Bottom Line

The implications of this should be obvious. A large magazine can amortize (spread out) these costs over a huge number of units, making their fixed costs per copy quite minimal. A tiny magazine, however, has to spread these costs over a much smaller print run, making their fixed costs per copy astronomical. For example, the cost to print Issue Twelve came out to \$2.73 per copy. In other words, it cost more to print each copy than some of you (who took advantage of the discount subscription offer) paid for it. And that doesn't factor in mailing envelopes and postage costs for each subscriber. Delivered to your door, each copy of *HFH* Issue Twelve cost yours truly over \$3. Of course, that's just the cost to print the damn thing, without taking into account compensation for the time and effort that goes into the writing and design of the magazine. In effect, some of you bought the magazine for less than its "parts" costs.

That being the case, I obviously needed to take steps to trim the mag's ballooning print bill. Either that, or jack up the cover price to seven or eight dollars. I won't do that for the simple reason that I won't pay seven bucks for a magazine, so why should I expect *you* to? I've surveyed a number of people, and the consensus was that they would indeed be happy to pay \$7 for a copy of *Hi-Fi Heretic*. But that's beside the point — I'm not willing to charge it. If you find this a strange attitude, see this issue's editorial for further explanation.

The most obvious change in the magazine is the move to matte-finish paper. This not only costs less than the glossy stock used in recent issues, but it also alleviates the problem with glare some of you mentioned (see Letters to the Editor, Issue Twelve). I've also gone to a heavier, more legible typeface which should help those who found the old type a bit hard to read. Personally, I liked it a lot, but what the hell.

One change in this issue that was *not* planned is the absence of photographs. I know, I know, this problem has come up before, and I thought I had it licked. Alas, circumstances beyond my control left me with less time than usual to harangue the relevant manufacturers, and thus none of

them bestirred themselves to send a picture of their product. The lack of photos was not intentional, and hopefully will not be repeated. Sorry about that.

The artsy-fartsy changes should be obvious, with downsizing of the graphic elements in the equipment review section to both improve the magazine's appearance, and to allow more text to fit on the page.

Hopefully, these changes have resulted in a magazine that more efficiently meets your needs, as well as being more-cost effective.

\*\*\*\*\*

With this issue I'm happy to welcome two new members to the writing staff. **Tony Chiarella** is an avid audiophile, and brings a great deal of enthusiasm and dedication to his equipment reviews for *Hi-Fi Heretic*. One small note — after agreeing to join *HFH*'s staff, Tony was offered a position at Lyric Hi-Fi in New York City, which he accepted. He thoughtfully notified me immediately of this development, and offered to resign from the magazine if I felt there was a difficulty with conflict of interest. I'm confident of Tony's objectivity, and see no problem in Tony writing for the magazine.

**Hector G. La Torre** may be familiar to many of you, as he writes music reviews (and the odd equipment review) for *Audio* magazine. Hector's background is in record producing and consulting, and he has extensive experience in professional audio. He was editor and publisher of *Modern Recording & Music*, technical editor at *Music & Sound Output*, and contributes equipment reviews to *Sound & Communications*, *D.J. Times* and as previously mentioned, *Audio*. Lord knows why he bothers with a nickel-and-dime operation like *Hi-Fi Heretic*, but he does, and I'm grateful to have him. He's also a lot of fun to talk to, because he's intimately familiar with the wiggly world of magazine publishing.

If you have any suggestions as to how the magazine could be improved, please drop me a line. Every letter is read with interest.

— Kent Bransford

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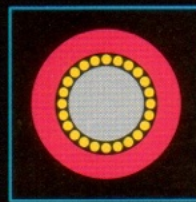
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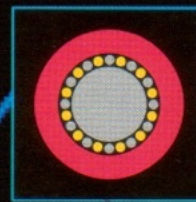
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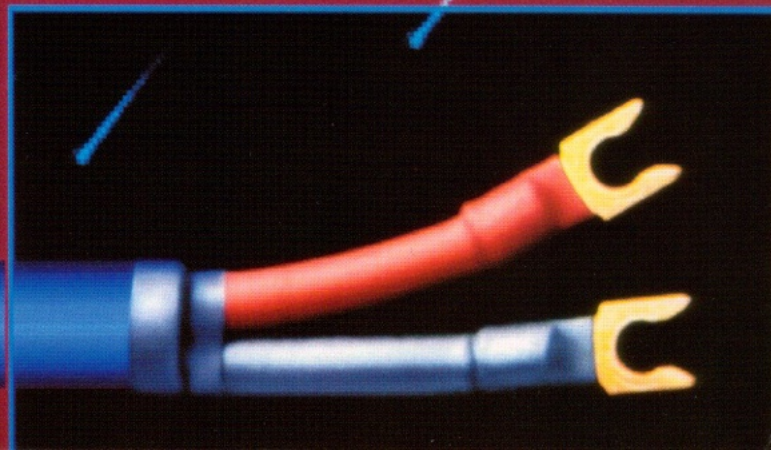
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We live in a time when the distinction between "right" and "wrong" often rests on whether or not you got caught. Increasingly, one encounters individuals who believe they have an implicit right to stick it to their fellow citizens at every opportunity. Only when their victims howl in protest will such individuals (hereinafter known as "weasels") refrain from their offensive acts, and then only grudgingly. In effect, weasels put the burden on the people around them to moderate their own wicked behavior.

Or, to put it another way, weasels will do whatever they can get away with.

Our society celebrates the right of the individual to act in his own self-interest, and everything from our free-market economy to our legal system is based on this premise. This is all to the good. The instinct for survival is a strong one, and acting in one's self-interest is simply a manifestation of that instinct. Those who would deny this instinct must surely come to grief, as recent events in Eastern Europe have made abundantly clear.

Of course, there are many ways in which an individual can act in his own self-interest. As was no doubt the case with most of you, my parents worked long and hard to imbue in me a strong set of values and beliefs. Their intent was to build in me a moral foundation upon which I could base my thoughts and actions. The values I learned from my parents largely define who I am, and to deny those values would be to deny my own character. As such, it is very much in my own self-interest to conduct myself in a manner consistent with my beliefs. In this respect, being true to one's own ideals can be seen as simply another form of the instinct for self-preservation.

Unfortunately, there are people in this world who, for whatever reason, seem to wend through life without any sense of morality or decency.

And some of them sell stereo equipment.

Unburdened by standards of ethical conduct, these weasels are free to roam the earth in search of easy prey. More often than not, that means you and me. For it is our very beliefs (in decency, honesty, respect for one another) that work against us when we are confronted by those in whom such values could find no purchase. Having been taught from birth the value of honesty, we are ill-equipped to deal with

those who reject it. Consequently, we are willing to swallow claims and statements that, from a rational point of view, are patently absurd. In other words, they're lies.

\*\*\*\*\*

High End audio squids will tell you that orienting the AC plugs on your audio components for proper polarity will yield an "enormous" improvement in sound quality. No, the difference is not subtle, but "dramatic" and "obvious" according to the audio sophisticates.

There are exactly two (that's two) ways in which you can insert an AC plug into a wall socket.

There is a device, called the Namiki Direction Finder, that will indicate when you have your AC plug oriented for proper polarity. This device sells for about \$150.

Think about it.

That, in a nutshell, defines much of what goes on in High End audio. The sheer quantity of bullshit routinely tossed around by manufacturers, dealers, audiophiles, and (most especially) reviewers is truly a wonder to behold. On a purely venal level, it's not hard to understand why manufacturers and dealers engage in this sort of behavior. A well-crafted pack of lies can move products at a dizzying rate.

High End reviewers, on the other hand, benefit because they are really in the business of telling stories. Just as good storytellers can hold their listeners rapt with attention by offering strange and wonderful tales beyond the imagination of normal folk, so too does the High End reviewer enthrall audiophiles with fables about an enchanted kingdom known as "You Get What You Pay For". The audiophile's appetite for such fairy tales is both voracious, and most disturbing.

There are a couple of points we now need to consider. First, High End audio equipment is theoretically sold on the basis of it offering higher quality than mid-fi dreck, which flourishes by enticing the public with lowball pricing. Thus the *perceived quality* of High End equipment is a major factor in determining whether audiophiles will buy a given component. Second, many audiophiles fervently believe in the axiom, "You get what you pay for." Or, to put it another way, "The more expensive it is, the

## EDITORIAL

better it is."

Bearing these two points in mind, and assuming the typical audio manufacturer has more sense than God gave a crab apple (admittedly a tenuous assumption), the results should be obvious. A manufacturer can determine the "quality" of his product in the audiophile's eyes simply by playing with the product's price. If a manufacturer is trying to sell his product based on quality, and the public firmly believes more expensive products are of higher quality, what possible motivation does the manufacturer have to offer a reasonably-priced product? To do so would effectively doom the product to mediocrity in the eyes of the public.

And so the weasels go to work. One need only look at the cost of certain speaker cables and interconnects to see that "quality-enhanced" pricing has become epidemic. A similar affliction has long plagued phonograph cartridges. But in truth, virtually all areas of the High End audio industry are infected with this disease. Image (as established by a lofty price) has come to eclipse competent engineering.

As long as audiophiles are willing to swallow the myth that a price tag, not intelligent engineering, is the cornerstone of quality audio, there is little hope of the situation improving.

There are those who read the obituary pages, and conclude that people died in alphabetical order. Then there are others who look at audio equipment, and conclude that "you get what you pay for".

Such people are commonly known as "fools".

— Kent Bransford

# LETTERS

## TO THE EDITOR

### Cool Breeze

Not only do I subscribe to your magazine, but I also support your views on audio equipment. Common sense and good listening judgment are the best standards for evaluating any piece of equipment. Common sense and good judgment probably work best in dealing with all of life's challenges.

Keep up the good work. Your writing is like a cool fresh breeze, refreshing and enervating, after the turgid rhetoric of some of the other "experts".

**Irving Marmer**  
Boston, MA

### Seasoned Prose

Your editorial in Issue Twelve is a killer, and worth the subscription cost alone. It's nice to know that there are still people who give a damn.

**Bob Hunter**  
Dublin, CA

### Tooled Steal

I'm impressed with what I've read so far in *Hi-Fi Heretic* because:

1) There is an overall concern for value.

2) It's refreshing to find an audiophile magazine that isn't primarily a marketing tool of the high-end industry. It's easier to value the opinions of a periodical that respects the subscribers' need to know which products actually perform well in given applications, instead of catering to the manufacturers' need to promote newer, marginally advanced, or just more expensive products.

Keep up the good work.

**Paul T. Zankel**  
Cherry Hill, NJ

### Thickly Colored

What a relief it was to stumble across your magazine at a local Main Line, pardon-me-sir-your-Plymouth-Horizon-is-blocking-our-valet-parking haute audio establishment. In response to my questions about amp and preamp combinations, the pin-striped fop replied, "Sir, I doubt even these Krells could lighten the dark and thick coloration of your speakers. Might we suggest Radio Shack?"

Jeez, and I thought the Krells died with Walter Pidgeon on *Forbidden Planet*. Boy, I was feeling pretty stupid. I guess I should have asked to hear (pardon me, "audition") the Id amps.

And what the hell is dark, thick color-

tion? I immediately envisioned my Sotas straining through a vat of blackstrap molasses. After my bruised ego recovered from this onslaught, the remnants of my pride had to recover and buy something.

So I saved face and found some good reading and sanity by purchasing your fine magazine. Actually, it was either your magazine or one spade lug (I couldn't afford the matched, numbered set). I think I made the right choice.

Keep up the voice in a pompous wilderness.

**Gene Cloud**  
Coatesville, PA

P.S. The dealer covered the cover price with a sale price sticker. I paid \$6.95. Wicked, wicked, world.

*If anyone has knowledge of a retailer charging more than the magazine's cover price of \$5.00, I want to hear about it. Please write or call with any information you have regarding this despicable practice. — Ed.*

### Tuned Headers

Of course, your Issue Twelve continues to show the excellent job you are doing — the reviews are *admirably succinct* with *exemplary objectivity*, and little that is superfluous. Congratulations for your good work.

You are a breath of fresh air compared to the two big High End subjective journals that, more and more, review mostly top-dollar products, leaving the mid- to low-priced gear relatively uncovered.

I have one suggestion you might consider to improve your layout. In your equipment reports, it might be helpful to mention at the top of each page what category each item falls under (e.g., "preamps", "amps", "CD players", etc.). The "chapter" headings are eye-catching and interesting, but one has to read the text to see what category is being discussed. In leafing through the pages, I can't tell what the B & K Sonata is! (Though of course the pictures give a clue.)

**Halsey Jones  
Portland, OR**

*An excellent suggestion, and one I have adopted, starting with this issue. — Ed.*

### Join Together

I would like to comment on your remarks in Issue Twelve regarding the intrinsic value of the content of some of your competitors' magazines. *The Absolute Sound* and *Stereophile* have acquired their devoted readership not by pandering to the lowest common denominator, but instead by attempting (albeit with variable success) to provide a window into the realm of sophisticated audio systems. The state of this art is expensive and often highly impractical. To review this stuff is not, however, an act of profligacy. Normal people really do want to know what this stuff sounds like, because the technology and sonic signatures of these products eventually lead to changes in more pedestrian products.

You seem to see your role as being somewhat different, in that you provide insight into equipment that many more people can afford. I really do think you fill a valuable niche in this industry, but I fail to see where your purposes are at all antithetical to those of *The Absolute Sound* and *Stereophile*. Instead, I see you as occupying different spots on the same continuum.

You all, however, have some real opposition in common. The mass-market audio press eschews any meaningful discussion of how music systems sound while playing music. Their music reviews are leaden (as must be their ears) and valueless. They also are not above taking some major snipes

at your cause and your persons. Yes, indeed you have some real enemies in common. It would seem to me that you would greatly profit from quitting your attack on the other independents, and joining forces to bring pressure to bear on the monsters at your heels.

**Adam Bailis  
Riverdale, NY**

### Upgrade Blues

After a brief hiatus caused by my recent move, I am again happy to be among the subscribers of *Hi-Fi Heretic*. I have appreciated so much the approach of you and your colleagues, and the continuing interest you demonstrate in helping your readers pursue their musical interests in an environment where purchasing power is increasingly the most important issue.

I am facing that inevitable need to now upgrade my system. In a world where matching a complete set of new components is difficult, I face the task of changing my system one part at a time with no enthusiasm at all. While I would love to follow the maxim of finding a good dealer and following his advice, I find locating a good, knowledgeable dealer even more difficult than locating good equipment.

I would appreciate sometime in the future an article (series?) on upgrading your system. Where to start, developing a plan, facing the issues of compatibility, etcetera. It is a complicated subject, I realize, but most of us are more likely to be upgrading at a given moment than buying a completely new system. Your advice and counsel would be much appreciated.

Let me also say a word in support of those who have advocated recommended systems. I can appreciate the restraints involved, but can also see that it would answer a need for many of us, buying new or upgrading, to have access to the demonstrated logic of a particular system recommendation. It could be quite interesting, driven not only by price points (the \$3000, \$4000, \$5000 system, etc.), but also by space constraints or even preferred type of music.

Thank you for your ear.

**Jack F. McJunkin  
Minneapolis, MN**

### Love Your Label

Your music reviews in Issue Twelve are just what the doctor ordered!

The Dixie Dregs, Steve Morse, and the acoustic jazz guitarists John McLaughlin, Al DiMeola, and Paco DeLucia are just the kind of artists who I like to "push" my system.

Record labels like Capricorn, Alligator, Varrick, Rhino, Ishiban, Black Top, Arhoolie, Takoma, Rounder, Blind Pig, and Mango deserve our support! I've heard many excellent productions and performances on these labels.

Check out a new artist I found (with the unfortunate name of Roy Rogers), on *Blues on the Range* (Blind Pig Records BP3589). He uses a variety of fifty year-old Gibson guitars. It's a "10"!

Thanks for the renewal offer, too.

**John Kidwell  
Los Angeles, CA**

### Charter Member

I have been a subscriber from the start of *HFH*, and would like to congratulate you on how far you have come over the years. The new style is great, and the content of the magazine has never been better.

I have a few suggestions for additions to the component reviews. Would it be possible to list a few of the statistics about components? The size and weight would be a nice addition. Also the power consumption would help determine if the upkeep would be worthwhile, especially for a tube amp or preamp that acts like a heater while idling.

I don't feel the manufacturer's specs on performance are required, because they are highly reliant on the test conditions.

Listing the number of dealers is a nice feature, because it can give the reader an idea whether or not he/she can find the product at a local dealer.

Keep up the good work, and thanks for producing *Hi-Fi Heretic*.

**Andy LaCombe  
Loveland, OH**



### Vandersteen Update

I thoroughly enjoy your magazine. I have all twelve issues, although #2 is a photocopy. I've noticed a change in some other audio publications I receive — they are using music to evaluate equipment. I can't help but wonder if *Hi-Fi Heretic* has influenced some of the big boys.

At present my system is devoid of a CD player. I have a casual interest in the Luxman D-105U, a tube front-end design. If you get a chance, I would appreciate a review.

I would like to contribute two items to your excellent magazine. The first is the name of a fine source for blues, jazz, folk, and older rock music: *The Record Round-Up* (actually a magazine put out by the following company — Roundup Records, P.O. Box 154, North Cambridge, MA 02140). They review a wide variety of music, and have been extremely useful to me over the past five years.

The second item has a short story to it. I bought a pair of Vandersteen 2C's in November of 1988. In January, Vandersteen announced the 2Ci's. Needless to say, I felt low. I try not to be an audiophobe, but after spending \$1400 (including walnut stands), I was discouraged.

After putting up with myself for almost a year, I called Vandersteen. Richard was on another call, so I talked to their tech manager, Nevin. He told me about an update I could install myself. I have enclosed the data sheet. (Editor's Note: The modification consists of installing three wood screws into the 2C's base to enhance the cabinet's structural integrity. Contact Vandersteen for details.)

Could putting three screws into the bottom of a speaker really affect the sound? Even my wife couldn't believe the difference. The biggest change to me was in the voices: clearer and richer. The instruments in the midrange all improved in tone and clarity. Guitars are more "there" — you

can hear the fingers on the strings, and pick out the differences between a D-28 Martin and a D-18 (rosewood vs. mahogany).

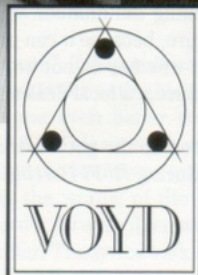
Again, I love your magazine and look forward to it. If only it came more often.

**Kim T. Hayfield**  
Birdsboro, PA

### Fourth-Rate Hondas

One of your Japanese readers would like to know why you own first-rate audio equipment, but your car is made by the fourth-ranking automobile manufacturer in Japan? I think this is what we would call a rhetorical question. Anyway, we both support the many choices you have made as to content.

**Rene Seabaugh**  
Costa Mesa, CA



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# ENOUGH ROPE

## The Virtuous Transmission Line

By Irving M. Fried  
Fried Products Co.

In reading the various publications dealing with sound reproduction in the home, one senses two divergent schools of thought on the state of the art in loudspeakers. One school seems to be saying that only small, monitor-type loudspeakers can cleanly reproduce the midrange of music, so that, despite their obvious deficiencies in the lower bass, they are the speakers of choice for the discriminating music lover; and, by leaving out the bottom octaves, they avoid the mud and "unnatural" bass of large loudspeakers. The other school insists that large loudspeakers are the choice, because they can reproduce the lower octaves, which are vital to the musical experience.

The author, having been asked to write an article on transmission lines, with which he has been associated for many years, suggests that the "truth" in both schools is only a part truth; and proposes to set forth another point of view, one founded on the somewhat elusive laws of acoustics, which often seem to be ignored in today's more esoteric loudspeakers. That view is, simply, that whether a loudspeaker be small or large, if it be the type commonly known as a "box" loudspeaker, it is not the speaker of choice. The small loudspeaker "box" has problems; the large loudspeaker "box" has problems. These problems manifest themselves in different kinds of coloration in the reproduction, because "box" speakers do not solve the problem of the rear wave — i.e., what to do with the energy that comes from the back of a loudspeaker cone.

Certainly, there have been attempts to solve the problem, increasing in recent years. Now for a story: A correspondent and avid music lover in Brazil, who for years has been enjoying transmission line loudspeakers of the author's design, recently sent a European advertisement from an English Company, B & W, describing their "matrix" system, and stating "totally absorbing the out-of-phase energy — as in a perfect transmission line, properly terminated", to eliminate the "strong standing waves and resonant modes" of an enclosure. With the advertisement, he sent a letter, querying why the Company just didn't make transmission lines!

That leads us into our major subject, the transmission line, and why it is superior to all other enclosures. Or, what is a transmission line, where did it come from, and why is it so scarce? Historically, the first use of an "acoustical labyrinth", which is essentially a primitive transmission line, was in Stromberg-Carlson consoles, back in the 1930s. Benjamin Olney, a Stromberg engineer, invented it, and Stromberg used it to make their consoles the "reference standard" of their day. The author has never forgotten hearing a live broadcast of Leopold Stokowski, conducting the Philadelphia Orchestra, on such a console; and hearing for the first time the bass of that esteemed orchestra on a reproducing system!

The next transition is to the modern transmission line, researched by Dr. Bailey, and contained in the RADFORD transmission line loudspeakers of 1962. The author heard these, during a research project with English Decca ("London" here) into record reproduction, and commenced a long-term involvement in transmission line loudspeakers for ultimate reproduction of recorded music.

The first "IMF" transmission line loudspeaker was presented at the New York Hi-Fi Show of 1965, along with the new LONDON cartridge. The "IMF" Monitor III appeared in 1968, again in conjunction with new record transducers. Then came the "FRIED" H system of 1975, and after that various systems up to and continuing today. Interestingly, each loudspeaker appeared in conjunction with advances in the art of sound reproduction — each loudspeaker being a "reference" monitor.

What made these older loudspeakers so superior in their day — indeed, so well remembered even today? The answer, or

answers, lie in physics and acoustics, those immutable laws which govern the propagation of sound. The transmission line is just a better enclosure for high quality drivers and crossovers. Let us describe a modern transmission line.

A transmission line is a long, inversely tapered tube from the rear of a driver, the other end being open. Into this line are inserted graded damping materials. The line is generally folded, to conserve space, so that the opening appears near its driver. It does the following:

1) The energy leaving the driver is progressively absorbed along the tube length, never to return to the driver, leaving a low frequency component which emerges from the opening, in phase with the driver. It has been said that a line is "neutral", acoustically, because it absorbs and does not reflect back the unwanted energy.

2) At the lowest frequencies of operation, the mass of air contained in the line is placed in parallel with the mass of the driver diaphragm, forming a large "equivalent acoustic air mass". Proof of this effect is that the free air resonance of a driver is lowered when the driver is placed in a line (the only known enclosure having this effect). If there is any "resonance" left in the system, it must occur at a lower frequency, more effectively out of the frequency range of music. The "equivalent acoustic air mass" forms a large piston, many times the cross-sectional area of the driver, which effectively reproduces the very lowest frequencies. We all know that a large piston moving a small distance is better than a small piston moving a large distance — always being more linear and producing a more natural and extended bass.

3) By its inherent nature, and its folded configuration, the line is braced. A proper line has no pressure buildup inside (other enclosures do have a pressure buildup). Therefore, wall vibrations are reduced to insignificant levels.

4) The transmission line produces a "resistive" load to the driving amplifier (other enclosures produce a "reactive" load), so that power transfer is optimized.

5) The driver and the line opening form a "plane source propagator", whereas other enclosures are "spherical" propagators. The line propagation is *kept off the walls* of the listening room, intermingling less with

room resonant modes than "spherical" propagators, so that performance is smoother and cleaner. Some authorities suggest that a transmission line pressure loads the listening room, producing the effect of the reproduction being in the room, rather than emanating from a loudspeaker. The listening effect of a transmission line is an uncanny experience, compared to that from "box" enclosures.

For any and all of the above reasons, the transmission line produces a different quality of performance, different from conventional loudspeakers, leading various experts to say "the widely recognized superiority of transmission line loading — generally acknowledged to produce the best quality low end attainable from anything short of a huge exponential horn", "the best possible acoustic environment for drivers — the concept's exceptional technical merits."

A few have criticized the transmission line as being "non optimal", which apparently means it is too complex for the results achieved; or said it is just a glorified bass reflex — which, as we have seen, it is not (in a bass reflex the free air resonance of the driver does not go down, etc.).

However, there have appeared certain variations on the line concept, which theoretically fall between true transmission lines and bass reflex. One of these is the author's "line tunnel" loading system, used in more moderately-sized systems. What is it? Like all acoustic systems, it has its antecedents. During the early 1970s, at "IMF", it originated, being copied from a then-existing Ferrograph (a British tape recording company) monitor. As copied, it was a duct from the inside of the enclosure to the outside, filled with damping material, which just happened to be better than conventional reflex or sealed loading, in the transient sense, i.e., less "boxy".

In 1976, it was redeveloped as follows: Danish researchers had found that inserting a "flow resistance" unit into otherwise sealed enclosures produced superior damping for the driver, by reducing the typical impedance rise at resonance. From there, it was a small step to adjust the damping material in the "line tunnel", getting the optimum amount for re-

sponse vs. damping.

That is the author's "line tunnel", a duct with the approximate cross-sectional area of the driver cone, inside which is graded damping material adjusted per the above; the duct being "tuned" to the free air resonance of the driver. Without the damping, this would be a classically-tuned bass reflex, with two equal impedance peaks. With the damping, there is a single impedance peak, much lower than that from either reflex or sealed loading. The "line tunnel" effectively damps the driver, furnishes a doubled area for deep bass propagation, and creates a frequency curve that rolls off slowly downward (from operating point) — all considered virtues.

But the "line tunnel" does not have the vast multiplying effect of the true transmission line, merely doubling the radiating area. Incidentally, one British authority termed the modern "line tunnel" a "work of genius" — for what that's worth. Nor does the "line tunnel" have the completely "neutral" characteristic of the transmission line — it is just more "neutral" than other enclosures.

Why are true transmission lines not more common in domestic loudspeakers? One recent review of a transmission line loudspeaker could not understand this, considering "the concept's exceptional technical merits". The answers are complex and

varied, among them:

- 1) The very few designers who dislike them (see above);
- 2) The "not invented here" mentality which is all too common in the industry (a head of an "air suspension" company once told the author his engineers all knew of transmission lines' technical superiority, but were bound by the company policy!);
- 3) Ignorance;
- 4) Their complexity and costs — even expensive speaker designers worry about costs, particularly since lines predicate the use of the very best drivers and crossovers ("box smear" covers over many defects in lesser designs);
- 5) Other marketing considerations, briefly: The clarity, naturalness, program dynamics, and soundstage fidelity of lines are readily apparent to experts and to those accustomed to the sounds of live performance. However, those with less experience in quality listening, when first exposed to transmission lines, ask "where the bass is" — i.e., the general thump in the bass of most loudspeakers. The marketing thought is that there is no reason to produce a real bass quality, when most people are more impressed by a general "thump".
- 6) Transmission lines are too large for



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most domestic environments. On this, see below.

As loudspeakers are presented costing vast sums of money, most of the arguments regarding cost and complexity of lines fail to impress. And the virtues of transmission lines are just as important, if not more so, for loading the mid driver in multi-way loudspeakers, because there the ear is at its maximum sensitivity to sonic aberrations.

Again, we must recount history. For many years, the author's three-way loudspeakers employed special mid loading, either long tubes to the rear of the enclosure (with or without "flow resistance" added), or pyramidally-shaped enclosures (with "flow resistance"), on the theory that either was superior to "box" loading. In 1985, as part of a project into improving mini-monitors for digital monitoring, a mini-monitor was experimentally developed, looking like the older monitor (pyramidal from the front), but adding a tri-folded true transmission line at the rear. At Las Vegas CES, January 1986, a comparative demonstration of the older pyramidal monitor and the new pyramidal monitor with transmission line loading was set up. Both used identical drivers and crossovers.

The program material was both analog and digital, varying from solo piano and violin to massed orchestra and choirs — and including operatic excerpts. Every auditioner, including top industry critics and experienced dealers, heard a great superiority in the transmission line version. One critic summarized the difference as being much greater harmonic integrity, everything literally coming together. Others insisted the drivers in the new monitor were superior (they were the same). One famous reviewer heard a profound improvement, but said he could not agree it was all because of the line loading — he had to think about it a while.

Later in 1986, during redevelopment of the G/2A loudspeaker (already praised for its "natural" midrange), two loudspeakers were set up, one with a much larger "flow resistance" damped tube behind the midrange and extending 18" to the rear; the other with a replica of the tri-folded line of the mini-monitor built in. Outwardly, both loudspeakers were identical in appearance. Various experts were invited to audition the two, on any program they found meaningful, from rock to opera. Every expert chose the free flow line proto-

type loudspeaker, saying it had less "fuzz" and "coloration" over the music. And thus the G/3 was developed with the free flow line, for the midrange.

Way back in 1962, Arthur Radford (see above) had predicted this — he said every driver should have a true line termination! Peter Moncrieff (IAR), a modern day critic, gave his reasons: "less back wave reflection coming back through the midrange cone — and less modulation of cone motion by back pressure." Another writer claims the improvement is in reducing intermodulation distortion, time smear, and energy storage of enclosures with trapped air — i.e., all other enclosures.

Since 1986, all FRIED three-way loudspeakers have incorporated true transmission line loading in the midrange, down to and including the moderately-priced R/4 (whose predecessors had stopped line loading). Yet, to the writer's knowledge, no other loudspeakers do. Why? Again a story: Some years back, discussing loading techniques with a competitive manufacturer (and good friend), the author asked him why the vast majority of speaker designs merely placed a driver in a box. The competitive manufacturer immediately replied that such designs merely aimed for "good, second rate results"!

Like the recent reviewer who could not understand why there were so few transmission line-loaded systems both in the bass and the midrange (where he talked of keeping the unwanted rear wave from bouncing back at the driver from the rear wall), you might be puzzled. You should audition a good transmission line system and decide whether the virtues are meaningful to you — if not to the majority of the "market".

Now, to recount other recent refinements of the transmission line as it appears in the author's loudspeakers: Remember our discussion of lines, saying that the distance from the first sharp fold was important; remember also the characterization of transmission lines as bulky and unwieldy.

Several years ago, it was decided to try to produce a "slimline" transmission line, which would appear less bulky in the listening room. At the time, no one thought the slimline designs would be "superior" to the well-accepted bulky designs of the Company. However, the development proceeded, with a high-quality 8" driver, and with "gradual slope" passageways

leading away from the driver (theoretically, to reduce further the possibility of reflections).

Lo and behold, the new line was dramatically superior to the older ones! Prototypes were demonstrated at trade shows. Later, a slightly larger and even more carefully contoured passageway system was developed.

In side-by-side comparisons, the older vs. the newer lines, the new "slimlines", in typical comments, made the older models sound slightly "lumpy", or "boxy", or "veiled". Comments from the field, from owners of the older lines who asked for and had built the new ones, are excerpted: The new "upper bass is much more layered with information...I am hearing details (not heard before)...crisper, greater presence...more detailed deep bass"; the new ones are "crisper, more realistic with better transparency, greater intertransient silence, more resolution...more low level detail"; "differences in program material are more apparent...programs with strong deep bass are more authoritative...warmer, quieter, more like 'live' instruments...hall ambience is noticeably clearer...integrates better with the C/3-L."

What happened? Well, "early reflections" were further reduced, another veil being removed from the music. Or, we haven't exhausted the saga of the transmission line — yet.

Summarized, whenever the transmission line approaches more closely to the theoretic ideal, as described above, the performance superiorities as heard by the trained ear fulfill even more the promise of the transmission line concept set forth long ago. ■



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# Updates and Previews

"Updates and Previews" is a new feature, designed to achieve two objectives. "Updates" will offer capsule reviews of products updated since their last full review in *Hi-Fi Heretic*. Furthermore, it will include reports on the status of *HFH* equipment reviews, including those that were scheduled for previous issues, those currently in progress, and those planned for future issues of the magazine.

## EPOS ES14 LOUDSPEAKER:

Reviewed in Issue Nine, the Epos has since undergone a couple of changes. The most obvious difference is the new dustcap on the bass/mid driver. This allows easier access to the voice coil during driver assembly, allowing greater precision in aligning the coil in its gap. It is also claimed to have some phase correction properties for the driver's output. Another change from earlier ES14s is that the cabinet is now built entirely of MDF, whereas before only the front baffle and rear panel were MDF, with the cabinet walls made of particle-board.

Sound quality of the new Epos was disappointing, with a bright, aggressive tonal balance that is quite fatiguing. While this makes the ES14 sound more detailed than its predecessor, it comes at too high a cost for me. While I didn't care all that much for the earlier Epos, it least it wasn't actively irritating.

This is a beautifully-built loudspeaker, and indeed many aspects of the ES14's design are most impressive. That said, the designer seems unable to decide whether the Epos is a ported or sealed-box loudspeaker. A thick foam plug fills the ES14's rear-mounted vent, this apparently intended to function as a resistively-loaded port, but the degree of air flow through the foam plug is so minuscule that it more closely approximates a sealed box with a slight leak.

In any event, I found the new Epos to be clearly inferior to the old model. The darling of many audio reviewers, I continue to find the ES14 a good, but not great, loudspeaker. (\$1195)

## LINN NEXUS LOUDSPEAKER:

Also reviewed in Issue Nine, the Nexus was later updated, primarily to improve its bass performance. Indeed, I found the revised Nexus to have somewhat crisper, quicker bass response. That said, it was not a huge improvement, and the Nexus still struck me as a work-in-progress.

Which it in fact was. The Nexus has recently undergone an *extensive* redesign. A review of this latest Nexus is planned for the not-to-distant future. (\$1195)

## ARCAM DELTA 90.2 INTEGRATED AMPLIFIER:

Reviewed in Issue Seven, the Delta has since been fitted with a beefier power, undergone a general upgrading of parts quality, and benefitted from a slightly revised board layout (the MC stage is now contained on the main board, rather than on a plug-in phono board).

Sound quality is noticeably improved, with the Arcam exhibiting greater authority in the bass region. I also noticed a greater sense of clarity and detail, though the Delta still sounds a bit laid back and closed-in compared to some of its competitors.

While still not challenging models like the NAIT 2 or Onix OA21 for sheer sound quality, the Arcam offers an attractive combination of performance, control flexibility, and outstanding build quality and reliability. As before, a solid value. (\$849)

## COUNTERPOINT SA1000 AND SA3000 PREAMPLIFIERS:

A review of the SA1000 was completed for Issue Twelve, and a pre-publication copy sent to Counterpoint. It was not a favorable review, and Counterpoint insisted that the review sample could not have been performing up to par. They asked that the unit be returned, to be replaced by an updated version of the SA1000. I had not yet begun my auditioning of the SA3000 (which had also been updated since my receiving the review sample), so I sent both units back with the explicit understanding that I would receive replacements as soon as possible. On this condition, I agreed to pull the SA1000 review from Issue Twelve.

Big mistake. Despite my repeated phone calls, and Counterpoint's assurances that the replacement samples of the SA1000 and SA3000 would soon be on their way, I received nothing. Finally, in *late May* the samples arrived via UPS. At this point it was too late for the units to be included in this issue, so I refused to accept them. When will the SA1000 and SA3000 be reviewed? I honestly don't know, though the phrase "when hell freezes over" sounds about right.

## ONKYO DX-7500 CD PLAYER:

Ditto the Counterpoint affair, with one

difference — Onkyo *never* sent a replacement sample. Reviewer Eric Donaldson and I both thought the DX-7500 sounded rather boring; "inoffensive to the point of being offensive" was how he put it in his cancelled review. I've spoken to several audiophiles who love the Onkyo, so our review sample may well have been defective. Given Onkyo's failure to send another sample, I guess we'll never know.

## NAIM 72/HI-CAP/140 PRE/POWER COMBO:

I had this equipment on hand during much of my reviewing for this issue, and it was truly a joy to have in my home. Music through Naim electronics lacks the "sonic spectacular" character imparted by some High End equipment, and thus listeners may initially find Naim gear a bit lackluster. Not so. It simply communicates the meaning and emotional essence of music better than almost any audio components I know, due in large part to its ability to get the *timing* of music right.

One interesting note: I found the Hi-Cap power supply made a big difference in the performance of the 72 preamplifier. When run off the internal preamp supply in the 140, the 72 sounded very good indeed, but it really came to life with the Hi-Cap. The Hi-Cap is hardly cheap, but the sonic improvements make it a worthwhile investment.

As good as the NAP 140 power amplifier is, the real glory of the Naim line lies in the classic NAP 250 amp. I hope to feature a review of the full-bore 72/Hi-Cap/250 combination in the near future. (NAC 72 - \$1245; Hi-Cap - \$1145; NAP 140 - \$1245; NAP 250 - \$2795)

## REVIEWS IN PROGRESS:

Budget speakers, including the Dana Model 1, Spica SC-30, Ryan MCL-1, Amrita Troppo Towers, Signet SL260, and more. Other speakers: Taddeo DM-1, Fried R/4, and Rogers LS5/9. Planned are reports on outboard D/A converters, a long-overdue survey of phono cartridges, and preamps and power amps in the \$1500-\$3000 range.

By the way, does anybody know why the lads at Lantana named their company after a shrub? Just wondering. ■

# ATMOSPHERIC TRANSMISSIONS

Anytime you have a mass suspended on a compliance, you will have a characteristic resonance frequency. This is simply the frequency at which movement of the mass is least inhibited. In other words, the frequency at which the least amount of energy is dissipated. For a given *mass*, the higher the compliance ("the greater its springiness", if you will), the lower the resonance frequency. Conversely, the lower the compliance ("the greater its stiffness"), the higher the resonance frequency. For a given *compliance*, the greater the mass, the lower the resonance frequency. And in turn, the lower the mass, the higher the resonance frequency.

Typical box-type loudspeakers use the air within the cabinet as part of the drive units' suspension (see review of ProAc Response Two In Issue Twelve for further thoughts on this). The air inside the enclosure is compressed, and as this occurs the air's pressure (or resistance) increases. This "stiffness" is *added* to the stiffness that already exists in the driver's suspension (spider, surround). Adding these two "stiffnesses" together yields a net reduction of compliance, and thus the driver's resonance frequency is *higher* than its free-air (i.e. outside of any enclosure) resonance.

This is unfortunate, because a driver's bass response drops off rapidly below its low-frequency resonance. A transmission line avoids this by reducing air pressure in the enclosure. Without the additional stiffness of the compressed air in the cabinet, the driver's resonance frequency is no longer raised. In fact, a properly-designed transmission line will actually *lower* the driver's resonance frequency by loading the driver with air.

As noted above, adding mass while keeping compliance constant will lower the resonance frequency of a mass/compliance system. With a transmission line, the mass of the air in the line is *added* to the mass of the driver's diaphragm, and thus the driver's resonance frequency is lowered, and bass extension is improved.

Two of the speakers on test here (the Rega ELA and TDL Studio 1) are classic transmission line designs, while the Chapman T-7 is more of a quasi-line. The Tannoy DC3000 employs a ducted port, but achieves much tighter bass than I'm used to hearing from such designs.

— Kent Bransford

## Loudspeakers

Of all the designers in specialist audio, perhaps the one I admire most is Roy Gandy of Rega Research. Boasting little more than a soldering iron in his hand and a gleam in his eye, the typical specialist audio designer traces his roots to *hobbyist* origins. By contrast, Gandy is a trained *engineer*. This distinction explains a great deal about the products and philosophy of Rega Research.

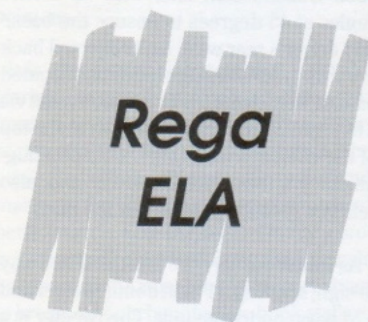
For almost two decades, Rega have stubbornly insisted on manufacturing goods to meet their *own* standards of quality and value, with seemingly little regard for the public's whims and fancies. Gandy does not believe in engineering by consensus — the laws of physics were not arrived at by popular vote. Not surprisingly, then, Rega's Planar 2 and Planar 3 turntables, Bias and Elys phono cartridges, and RB300 tonearm all fly in the face of industry convention.

Accepted wisdom tells us suspended-subchassis turntables are superior, yet Rega offer the non-suspended Planars. Heavy aluminum turntable platters have prevailed for years, yet Rega pioneered the use of moderate-weight glass platters. Incredibly massive turntable bases are *au courant*, yet Rega employ lightweight chipboard plinths. High End phono cartridges offer a dazzling array of exotic body materials, yet Rega equip the Bias and Elys with seemingly mundane plastic bodies. Tonearms with a plethora of set-up adjustments abound, yet Rega manufacture the straightforward RB300. And so on.

Of course, Rega have excellent engineering reasons for such design decisions. Rega place great emphasis on achieving maximum mechanical integrity in their products, and select materials and construction techniques with this goal in mind. Materials which offer both *stiffness* and *low mass* (the former property minimizing spurious movement, the latter minimizing energy storage) are favored — hence the Planars' glass platter and chipboard plinth.

Similarly, the Bias and Elys employ molded, one-piece bodies of high-strength resin (Pocan), thus eliminating glue joints and their compliances. Furthermore, this molded body reduces microphonics, meets exceptionally tight manufacturing tolerances which in turn permits more precise fitting of the generator assembly, and allows cartridge mounting screws to be firmly tightened without risk of damage.

Mechanical integrity also influenced



Rega's decision to eschew a suspended subchassis in their Planar models. While theoretically attractive due to their excellent isolation properties, suspended-subchassis turntables are inherently unstable because they locate a substantial mass (the platter/tonearm/subchassis) on an undamped compliance (the suspension). While sophisticated (and expensive) design techniques can minimize this instability, Rega took a more cost-effective path in keeping with the Planars' affordable prices. The Planars offer isolation from motor noise by suspending the much lower mass of the motor from the chipboard plinth, and achieve environmental isolation through the use of surprisingly sophisticated rubber feet strategically located on the plinth's underside.

The RB300 tonearm's design bespeaks a relentless pursuit of rigidity. The arm tube (an engineering *tour de force*) is a one-piece aluminum casting, offering far greater mechanical integrity than the typical multi-joint arm assemblies favored by other manufacturers. Of course, such a casting makes headshell-azimuth adjustment impossible. Similarly, while other tonearm manufacturers favor traditional sliding pillar/set-screw height adjustment, Rega reject such a scheme due to its mediocre mechanical coupling. Instead, the RB300's pillar is *threaded*, with a large hex nut tightened from underneath to firmly clamp the arm directly to the plinth. Height adjustment is achieved by adding machined steel spacers between the arm and plinth. Not as convenient as a sliding pillar, but structurally (and musically) superior. *Temporary* (installation) *convenience*, *permanent* (sonic) *impairment* is not a credo Rega endorse.

These few examples of Rega's nonconformist engineering (and note the above

discussion doesn't begin to do justice to the innovative designs and construction techniques that define Rega products) should give you an idea of the extent to which Rega swim against the specialist audio tide. To be sure, Rega's refusal to compromise the engineering integrity of their products to placate the audiophile community does have its cost. Though few in specialist audio care to admit it, there are strong *marketing* considerations that influence the designs of many hi-fi components. Expensive styling, exotic parts sourcing (e.g. "designer" capacitors), trendy circuit topology, etc. all play a part in capturing the audiophile's fancy. Indeed, pandering to the neuroses of the world's audio squids can be *quite* profitable. Alas, Rega obstinately resist playing such games, instead embracing the philosophy of *cost-effective engineering*, often to the chagrin of hardcore audiophiles.

For example, squids love to experiment with exotic (and laughably overpriced) interconnect cables, but they're stymied by the Rega RB300, which features a hard-wired tonearm cable (because it sounds better, and is cheaper). Squids also enjoy playing with expensive turntable mats and clamps, but Rega fit a thin felt mat on the Planars (because it sounds better, and is cheaper). Said mat allows a very short spindle to be used on the Planars, and thus squidly platter mats and clamps won't fit properly. Squids delight in...well, you get the idea.

All of which brings us, in a roundabout way, to the Rega ELA loudspeaker. (By the way, it's pronounced "Ella" — despite the all-uppercase letters, "ELA" isn't an acronym. Go figure.) A typical Rega Research product, the ELA embodies engineering decisions that place it well outside the audio mainstream.

The ELA's first heresy lies in its transmission-line design. Marketing weasels disdain transmission lines because they offer little *perceived* value. While their complex (and expensive) internal construction increases manufacturing costs (and thus retail prices), the *external* appearance of T-line speakers is no different than that of bog-standard vented designs. As such, transmission line speakers are often simply perceived as overpriced bass-reflex models.

In the case of the ELA, this would be a grievously inaccurate perception. To be sure, measuring a petite 32" H x 8" W x 12"

D (the latter measurement taken at the speaker's base, tapering to 7.25" D at the top), the floor-standing ELA doesn't make a particularly strong first impression. Compared to such like-priced rivals as the Vandersteen 2Ci and the Spica Angelus, the ELA looks distinctly undernourished for the money. However, closer inspection reveals several interesting elements in the ELA's design.

Most immediately intriguing is the Rega's front baffle. Built of 18mm MDF, the baffle slopes rearward as it approaches the top of the cabinet, in order to place the acoustic centers of the ELA's two drivers equidistant from the listener's ears. (For further thoughts on this subject, see the sidebar in the Tannoy DC3000 review.) More provocative are the eighteen grooves that run the full length of the baffle. Machined into the MDF at irregular intervals, these grooves minimize diffraction by directing tweeter output away from the cabinet edges. The irregular spacing of the grooves avoids reinforcement of particular frequencies.

Of course, this only explains the usefulness of grooves in the vicinity of the tweeter. Why do the grooves continue down to the bottom of the baffle? Knowing Rega's dedication to high-stiffness/low-mass construction, the grooves may be intended to slightly reduce the mass of the baffle (and thus its energy storage properties), while still maintaining excellent rigidity. Though transmission line speakers boast minimal internal cabinet pressure (and thus pump far less energy into their cabinet walls than typical loudspeakers), their baffleboards still experience Newtonian action/reaction forces from the movement of the bass/mid driver — hence the desirability of an exceptionally stiff baffle. The grooves' most likely function, though, is not to reduce the baffle's mass, but to curtail resonant peaks. The irregularly spaced grooves spread resonances over a broad range of frequencies, and thus minimize standing waves in the baffle.

While intellectually recognizing the low internal pressures inherent in transmission-line designs, I nevertheless was a bit disappointed to find the Rega's cabinet is built of 18mm particleboard, and not stiffer MDF. When I expressed my dismay to Roy Gandy, he simply noted that MDF was not necessary in this application. And, damn it, he's right. Even when playing booming reggae tunes through the ELA, the degree of cabinet wall vibration is astonishingly low.

The ELA's internal construction is textbook transmission line, with all corner angles at 45 degrees to ensure the bass/mid driver's rear wave isn't reflected back towards the driver. Eighty grams of graded natural wool damp the line, which vents via a foam-damped rectangular port at the top of the cabinet's rear panel. This port augments low bass performance, and also relieves residual pressure in the line.

As noted earlier, the ELA is a two-way design, sporting a 1" soft dome tweeter and a 5" bass/midrange unit. The tweeter is a Scanspeak unit, internally modified by Rega in the interests of greater strength and rigidity (for example, Rega add a rigid ring to solidly clamp the magnet in place). A small amount of cotton fill is added to the tweeter's sealed rear chamber to damp the dome's back wave — in effect, Rega attempt to mimic a miniature transmission line in the tweeter. Most intriguing, though, is the ELA's bass/mid driver. Designed by Rega in cooperation with (and manufactured by) Royd Loudspeakers, this unit

superior to polypropes. High internal damping is cited as one of polypropylene's attractive properties, yet there is considerable debate over whether such damping is in fact desirable in a driver diaphragm. A detailed discussion of this issue is beyond the scope of this review — suffice it to say the superiority of plastic cones over paper cones is far from proven. (Indeed, ProAc's Stewart Tyler deliberated long and hard before using polypropylene cones in his superb Response line of loudspeakers.)

The high-quality paper cone used in the ELA's bass/mid is imported from Germany, and was chosen for its exceptionally good stiffness-to-mass characteristics. The cone's light weight reduces the driver's moving mass, and thus enhances the ELA's quickness and clarity. In a further effort to improve transient response, Rega omit the traditional dust cap. This both lowers moving mass still further, and removes a potential source of distortion, as compliance at the dust cap's glue joint often results in decoupling and spurious output from the cap. To reduce moving mass yet again, Rega fit a small, 18mm voice coil to the bass/mid. The aluminum voice coil former extends forward of the cone's throat, which allows for a stronger, stiffer glue joint. In addition, exposing a portion of the coil former enhances cooling, and thus power handling. Built on a sturdy cast alloy chassis, the bass/mid uses a relatively small (but powerful) magnet to minimize reflection of the cone's back wave off the magnet structure.

Both the ELA's tweeter and bass/mid are flush-mounted on the baffle, with the tweeter located asymmetrically on the baffle to reduce diffraction (thus the ELA is sold as a mirror-imaged pair). Torx T20 wood screws fasten the drivers in place, with no less than *eight* screws securing the bass/mid driver. Silicone sealant ensures an air-tight bond to the baffle.

The ELA employs a simple three-element crossover, with an air-core inductor rolling off the bass/mid's upper range, and two components setting the tweeter's level and lower range roll-off. The high-quality components are hard-wired together, and glued to a small masonite board which is in turn fixed to the input terminal block. All internal wiring connections are soldered. Loudspeaker cable termination is via gold-plated, five-way binding posts. No provision is made for a second set of cables, as Rega believe the ELA's simple crossover would offer no benefit from biwiring.

**Price: \$1250**

**Contact:**

**Music for Others**  
**107 W. Lockwood**  
**St. Louis, MO 63119**  
**(314) 963-0177**

features a paper cone terminated by a long-throw rubber surround.

Let us now pause while audiophiles recover from the shock of finding a *paper* cone in a high-quality loudspeaker. Despite what audio squids may think, polypropylene (and related plastics) cones don't necessarily represent the state-of-the-art in loudspeaker driver design. In terms of stiffness-to-mass ratio, for example, high-quality paper cones can often be

## Loudspeakers

External fit and finish of the ELA are excellent, if a bit utilitarian in terms of the materials used. The baffle is painted with a high-quality black paint, offering an exceptionally smooth and elegant matte finish. The rest of the cabinet is finished in attractive black vinyl (walnut wood veneer is available at extra cost). The Rega's grille bespeaks an admirable attention to detail, minimizing diffraction by its thin wire frame. Covered in black stretch cloth, the frame fits snugly into four holes drilled in the baffle. As it has virtually no effect on sound quality, the grille was left in place for all auditioning. All told, the ELA's appearance is quite handsome, but lacks the luxurious finish of a competitor like the Thiel CS1.2.

Rega equip the ELA with a small T-shaped base built of square-section steel tubing. Three Torx screws fasten the base on the cabinet's underside, with the bottom of the "T" at the front of the cabinet. A threaded spike fits at each end of the "T", the two rearward spikes easily adjustable for height via knobs projecting above the stand top. Three, rather than the traditional four, feet are used for stability (remember, three points define a plane). This tripod arrangement is also easier to adjust and level.

Rated sensitivity of the ELA is a high 90dB/1 watt/1 meter. Rega have specifically designed the ELA to be an easy load to drive, its impedance never dropping below eight ohms.

No explicit placement instructions came with the ELA, as Rega believe the speaker's broad dispersion tweeter and non-resonant transmission line design allow it to perform well in a wide variety of room sitings. I first tried the ELA positioned near the rear wall, and this provided a useful, though hardly dramatic, increase in bass power. I noted little degradation of bass quickness and clarity when positioned thusly. I also experimented with placing the ELA a few feet out from the back wall, finding this produced exceptionally good depth reproduction, at the cost of a slight reduction in bass energy. I considered this a reasonable trade-off, and thus auditioned the ELA with it sited roughly three feet out from the back wall, and a similar distance from the side walls. Those who prefer a slightly more full-bodied sound would probably prefer near-wall placement. I angled the cabinets in towards my listening position, though the ELA's wide soundstage hardly makes this necessary.

One of my favorite bands is the British rock group Squeeze. They've never really achieved the commercial success they deserve, with only a handful of their songs receiving decent airplay on the radio. One of their more notable hits is the single "Tempted", from the *East Side Story* album. I play this LP quite often, though usually I only listen to Side One. Shortly after setting up the ELAs in my listening room, I plopped the record on my turntable, and lowered the stylus onto Side

attack and decay of individual notes were clearly audible, giving music marvelous character and texture. Acoustic guitars had stunning presence and immediacy, yet displayed no tendency towards thinness or stridency.

Similarly, lead singer Glenn Tillbrook's vocals sounded wonderful, with just the right combination of warmth and clarity. On this and other Squeeze LPs (such as *Cool for Cats*), the ELA afforded an enormous improvement in the intelligibility of lyrics. The ELA has the ability to snap into focus vocal and instrumental lines that were previously fuzzy and difficult to follow. Separation of instrumental lines on *East Side Story* was simply remarkable, allowing me to more easily appreciate the superb musicianship behind Squeeze's surprisingly complex song structures.

Bass quality was also extraordinary, with the ELA revealing melodic and rhythmic nuances of the bass guitar lost on lesser speakers. To be sure, the *quantity* of the Rega's bass was not overwhelming, the laws of physics dictating that a 5" driver can only move so much air, transmission line or no. That said, the sheer quickness and dynamics of the ELA's bass more than made up for any lack of extension (the ELA rather like the Linn Kan in this regard). Rhythmic coherence and progression on tunes like "Someone Else's Bell" and Side One's "Woman's World" were simply superb. The ELA had the marvelous ability to burn tunes into my brain. I'd find myself stuck in traffic, with the melody of "Woman's World" repeating over and over in my head.

Tonio K.'s *Notes from the Lost Civilization* was equally pleasing, with the funk track "What Women Want" particularly fun. This tune has an amusing sing-song feel melded to a pulsing bass line, and the Rega made it impossible to resist the song's energy and spunk. The opening percussion and electric guitar came across with startling immediacy, the musicians seeming to be in the room with me. The ELA's excellent retrieval of low-level detail and recording acoustic also helped the "live" feel of this cut. Bass guitar and kick drum had exceptional snap and punch, greatly helping to communicate the tune's vitality and drive. The ELA's imaging was similarly impressive, the musicians spread evenly across the end of my listening room, with no tendency to clump together at the center of the soundstage or around the speaker cabinets. The Rega's excellent imaging can

Price: \$1595  
(Canada)

Contact:

Planar Audio Mktg.  
6218 Saltmarsh Ct.  
Mississauga, Ont.  
Canada L5N 5X7  
(416) 824-9214  
(403) 938-7143

*Two.* Shortly thereafter, my jaw hit the floor. Suddenly I was hearing music that was familiar, yet utterly fresh and captivating. Songs displayed an intensity and vitality that had heretofore gone unnoticed. Whereas the woozy "F-Hole" had previously struck me as rather boring and self-conscious, it now revealed itself to be a fascinating, off-tempo sonic collage.

Indeed, the entire album side now could be enjoyed as a sort of bizarre song suite, with Squeeze demonstrating their stunning mastery of a dizzying variety of musical styles. The ELA was simply breathtaking in its ability to resolve subtle timing cues and note shapings. As my earlier technical description indicated, Rega devoted a great deal of effort to achieving superb transient response in the ELA's bass/mid driver, and this certainly paid off. The ELA is simply one of the *fastest* loudspeakers I've ever heard. This speed benefited *all* types of music on this record, from raucous rockers to slow ballads, from chamber music to symphonic works. The

be enjoyed well off axis, thus freeing the listener from being confined to a single "sweet spot" seating position.

On large orchestra works, such as Shostakovich's *Symphony No. 11*, the ELA was again impressive, though its limitations in terms of bass extension and ultimate SPLs were highlighted. Bass drum and tympani were, not surprisingly, rolled off in level, though the ELA's superb bass definition made what bass there *was* effective in communicating the power and drive of the orchestra. During climactic passages the little Rega did run out of steam, though orchestral dynamics were much better than one would expect from a 5" two-way loudspeaker. Strings and brass came across with amazing crispness and alacrity, the ELA's tremendous speed again coming in to play here. This gave the instruments far more impact and energy — "slow" speakers tend to homogenize and soften the strings' impact in the fourth movement's martial cadence section. Not so with the Rega, as this passage retained all of its tension and dramatic urge. Tonally, strings and brass did sound a bit lean, with the violins lacking a bit of warmth. Cellos and trombones were missing some of their gutsy impact, though I didn't find this to be a major problem. The soundstage set by the ELA was simply enormous, in all three dimensions, and this greatly aided in my appreciation of the performance's power and scope.

Whether or not you like Rickie Lee Jones, you must admit the musicianship on her eponymous debut LP is first-rate, and the ELA made this all the more apparent. Though I've heard this LP countless times, I was still taken aback by the acoustic guitar opening to "Weasel and the White Boys Cool". The sheer presence and dynamics of this instrument were astonishing. Indeed, this tune in general was conveyed with an immediacy and energy that gave it new life in my ears. Tonally, the ELA excelled in capturing both the warmth and crispness of the instruments. Jones' vocals had both body and clarity, the ELA striking an almost perfect balance here.

John Prine's *Bruised Orange* yielded similar results, with Prine's raspy vocals reproduced with a convincing blend of throat and chest tones. The ELA's excellent rendition of low-level detail and recording acoustic greatly enhanced the "live" nature of this performance. Note attack and dynamics were again superb, with the acoustic guitars coming across

with remarkable snap and definition. The sheer "you are there" feel imparted this recording by the ELA was quite amazing.

Pere Ubu's *Dub Housing* is one of the most fascinating, unusual, and *eerie* rock albums made in the last twenty years. Vocalist David Thomas brings new meaning to the word "bizarre". I strongly recommend you get a copy of this LP, or any other Pere Ubu recording, for that matter (I haven't heard it yet, but I gather *Cloudland* is very good). There are some rather strange tempos on this album, but the Rega was never caught out or lagged behind. Many "audiophile" speakers just slaughter this music, rendering it an incoherent mess. Not so the ELA. I found myself gaining fresh insights into these performances, gaining a new-found appreciation for the creativity and intelligence of this band. It's a tired old cliché, but a truly superb audio component has the effect of giving you a new record collection — familiar music suddenly rivets your attention again. Such was the case with the ELA.

Obviously, I was tremendously impressed by the Rega ELA. It combines superb note attack and dynamics with exceptional imaging, all of these qualities combining to give the listener new insight into the musical performance. Instrumental lines are portrayed with almost contemptuous ease, allowing the listener to easily move his concentration from one musician to the next, focusing on the individual's performance, and then pulling back to appreciate the ensemble as a whole. In sports, sex, and music, timing is everything. The ELA allows you to hear the rhythmic interplay between the musicians to a far greater extent than is usual with High End speakers, and this makes music vastly more interesting and compelling.

The ELA is also one of the most chameleon-like speakers I've ever heard. It imposes precious little of its own character on the music, but instead lets the program material and ancillary components dictate the sound you hear. With some records, the ELA may seem rather warm and laid back, while with others it can come across as thin and bright. Of course, this is how it should be with a high-fidelity loudspeaker. Those speakers that consistently impart a characteristic "sound" to all of your records may be initially appealing because of their familiar, comforting nature, but they aren't true to the music.

That said, I can foresee instances where

the Rega won't be to everyone's taste. For example, the ELA's moderate bass extension and ultimate sound-pressure capabilities may put off some listeners. Fair enough. The Rega can indeed sound a bit lean tonally when compared to models like the Vandersteen 2Ci and Rogers Studio 1a. For *me*, the ELA's stunning sense of speed and dynamics is addictive. I'd rather trade away a little bass weight in exchange for crispness and clarity that benefit *all* types of music, not just those with significant low-frequency information. Put plainly, the ELA communicates the emotion and meaning of music better than the vast majority of speakers at any price.

Despite this, I fear for the ELA's future in the audio salons of America. Rega focus their energies on engineering, not marketing, and in the wiggly world of audio that can be a dangerous course to take. The ELA's virtues are subtle compared to the "hi-fi" pyrotechnics offered by many High End speakers. In addition, the Rega's diminutive size, unconventional driver complement, and not-inconsiderable price will no doubt alienate the showroom squids. But if you take the time to hear the ELA in a proper demonstration, you may well come to the same conclusion I did: the Rega ELA is simply one of the most musically satisfying loudspeakers in the world today. ■



While TDL is not a marque familiar to most Americans, it is in fact a well-established company owned by the giant British drive-unit manufacturer, ELAC. As many of you know, ELAC builds metal-dome tweeters used in both Acoustic Energy and Monitor Audio loudspeakers (among others).

TDL is descended from IMF, the British company that popularized transmission-line speakers in the Sixties and Seventies. When Irving M. Fried (hence the "IMF"



## Loudspeakers

moniker) parted ways with the company, the latter continued to use the "IMF" logo, only recently changing to "TDL" (an acronym for "Transducer Developments Limited").

Though TDL's designer, John Wright, is responsible for such imposing brutes as the Reference Standard and the Monitor, he has recently concentrated on applying the transmission-line principle to smaller, more affordable models such as the Studio 1 on test here, and the newly-introduced Studio 0.5.

The Studio 1 is a compact (28" H x 9" W x 12.5" D), floor-standing unit employing a 6.5" bass/midrange in concert with a 1" metal-dome tweeter. The bass/midrange employs a doped Cobex cone, with butyl rubber surround and dustcap. Carrying a good-sized magnet in its stamped-steel basket, the driver sports a vented pole piece to reduce back pressure and increase power handling. The tweeter is a version of ELAC's highly-regarded aluminum dome, featuring ferrofluid cooling and damping, as well as a vented rear chamber. A wire-mesh grille protects the dome from prying fingers. Both drivers appear to be very well-built, though the bass/midrange is perhaps less impressive when compared to the Chapman's Scanspeak midrange unit.

The Studio 1's high-quality crossover components are mounted on a glassfibre circuit board, which in turn is attached the speaker's input terminal block near the top of the rear panel. All internal connections are soldered. Four high-quality, machined binding posts (gold-plated) are provided, this to facilitate bi-wiring. Short wire links connect the posts for single-wire operation.

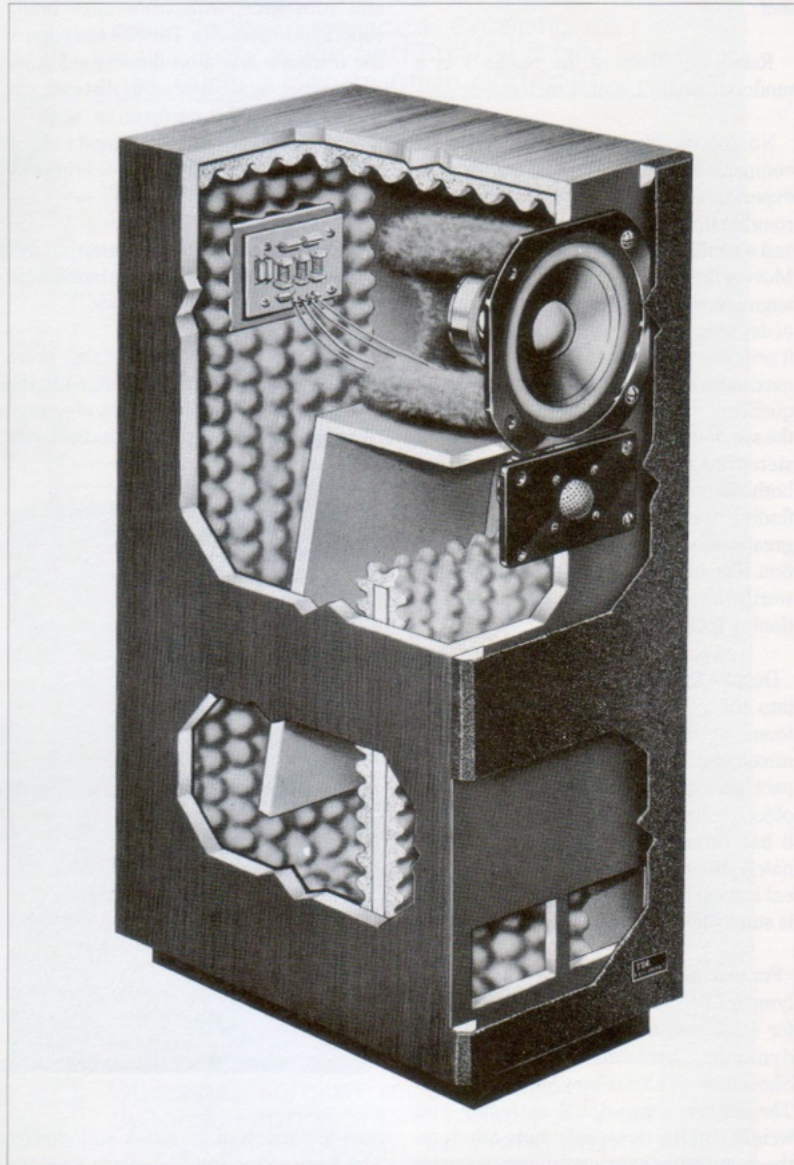
Both drivers are fixed high on the cabinet's front baffle, with the bass/midrange sited *above* the tweeter. Machine screws and threaded inserts fasten the drivers in place. Neither driver is mounted flush on the baffle. The cabinet is built entirely of 18mm MDF, with the cabinet walls veneered on both sides for added strength and rigidity. Eggcrate foam panels line the cabinet's interior, with additional polyester wadding placed in the chamber behind the bass/midrange unit.

As with the other transmission lines on test here, the Studio 1 is actually vented (via two small, foam-damped ports at the bottom of the front baffle). This augments bass response, and provides a release for

energy not damped within the cabinet.

A small base fitted to the cabinet lifts the speaker about two inches off the floor. This isn't particularly effective (the speaker is still too low for optimum sound quality, no

rectangular-section steel tubes. TDL rather optimistically assume both the speaker bottom and stand tubes will be perfectly flat — if they aren't, the cabinet is free to rock to and fro (as did my review samples). Furthermore, such an arrangement dumps



tilt adjustment is possible, and the metal buttons on the bottom of the base do little for stability on a carpeted floor). TDL offer a small, welded-steel stand that lifts the speaker approximately 4"-5" off the floor, depending on the adjustment of the spiked feet. Despite this stand's rather grand price of roughly \$170/pair, it still leaves something to be desired. As the stand's top offers no upturned spikes or isolating pads, the cabinet sits directly on the stand's

cabinet vibration directly into the stand's hollow, resonant steel tubes. Small rubber feet affixed to the top of the stand cured both problems, but I feel a rethink of the stand's design (and price) is definitely needed.

The Studio 1's cabinet is available finished in either walnut or black ash wood veneers. My review samples came in walnut, and were absolutely gorgeous. The

cabinet walls are veneered, while the front baffle and rear panel are painted black. Given that the Studio 1 sounds much better with its MDF/stretch cloth grille removed, its a bit of a shame the baffle isn't veneered, too. That said, overall finish and build quality of this loudspeaker are excellent.

Rated sensitivity of the Studio 1 is a moderate 86db/1 watt/1 meter.

No specific placement instructions accompanied the Studio 1, and it was through experimentation that I arrived at a siting roughly three feet out from the back wall, and a similar distance from the side walls. Moving the speakers close to the back wall augmented bass power, but at the expense of degraded clarity and definition. I found it necessary to adjust the stand's spikes for maximum rearward tilt to optimize sound quality at my listening position. Toeing in the speakers towards the listener improved stereo imaging. I listened to the Studio 1 in both normal and bi-wired configurations, finding the latter preferable due to its greater sense of openness and bass definition. The improvement was not huge, but worthwhile. As such, the majority of auditioning took place in bi-wire mode.

Despite the obvious care that has gone into the construction of this speaker, I found its sound quality something of a mixed bag. Deep, powerful bass in a compact package was obviously a primary objective in this model's design brief, and it has certainly been achieved. Unfortunately, though the *quantity* of bass apparent is most impressive, the *quality* of same is somewhat less convincing.

For example, orchestral bass drums and tympani had remarkable power and heft for such a small speaker, and this gave dynamic orchestral works like Shostakovich's *Symphony No. 11* or Holst's *The Planets* exceptional authority and weight. On the down side, note attack on these and other bass instruments was a bit blurred, and this undercut their sense of rhythmic coherence. Cellos in the Fourth Movement ("Alarm") of the Shostakovich lacked crispness and alacrity, diminishing the tension and drama of the martial cadence section of this movement. The bass drum in Holst's "Uranus, the Magician" sounded a touch billowy and smeared, rendering this instrument's impact less startling than usual.

Strings and brass were rather more suc-

cessful, with the Studio 1's tweeter doing a particularly nice job of capturing the violins' crispness and body without any harshness or stridency. There was a lack of recording acoustic and ambience noted, which made the performances sound a tad airless and remote. Brass had fine body and substance, with trombones being especially impressive. The bite and edge of the trumpets was a bit diminished, however, which again tended to distance the listener from the performers slightly. Soundstage depth was very good indeed, with image width being rather less impressive.

Overall, the sound on these performances was full-bodied and smooth, but somewhat lacking in detail and immediacy.

Tonio K's "What Women Want" (from the *Notes from the Lost Civilization* LP) is a marvelously funky track, worthy of George Clinton. Alas, through the Studio 1 this

TDL, there was never any doubt that you were listening to a recording. Tonio's vocals sounded a touch thick, with too much chest and not enough throat, but this was not a major problem. Most discouraging was the Studio 1's mediocre sense of timing, as the tempo and drive of the music on this album were obviously degraded.

On the album *Carol Kidd* (Aloi AKH003), things were a bit better. The Studio 1 did add a bit of chestiness to Kidd's voice, but by and large she came across with a nice blend of warmth and clarity. I again noticed a lack of recording acoustic, which diminished the "live" feel of this recording. Bass guitar was a bit muddled and tired, sapping some of the energy from uptempo tracks like "It Isn't So Bad" and "Yes, I Know When I've Had It".

While the above observations may seem to indicate otherwise, I found quite a bit to like about the Studio 1. TDL are to be commended for the Studio 1's fine construction and finish quality. Its freedom from treble nasties makes it especially well-suited for classical music lovers, who must contend with the harsh high frequencies all too often found on digitally-recorded material. The TDL also manages to produce exceptionally deep bass from such a small cabinet. This provides a useful underpinning to full orchestral works.

On the whole, though, the Studio 1 just didn't prove to be my cup of tea. The rather underwhelming sense of rhythmic coherence combines with a relative lack of immediacy and recording acoustic to render music somewhat homogenized and uninvolved. I was always aware of the Studio 1 interposing itself between me and the performers, and thus I found it difficult to make an emotional connection with the music.

Given the great respect I have for the engineering expertise at TDL, I found the above results quite disappointing. I can't help but think that TDL would have been better off trading away 10Hz or 20Hz of bass extension in favor of gaining greater bass definition. Personally, I place a great premium on low-frequency clarity and crispness — bass *quality* always takes precedence over bass *quantity*. Perhaps my preferences in this area differ sharply from your own. As noted above, some readers may well find the Studio 1's deep, powerful bass and smooth tonal character quite appealing. As always, listen and decide for yourself. ■

Price: \$1445

Contact:

TDL Electronics  
652 Glenbrook Road  
Stamford, CT 06906  
(203) 324-7269

tune lost much of its spunk and energy. The bass guitar and kick drum sounded rather tired and torpid, as the attack and decay of each note lacked crispness and definition. On this and other tracks (such as "The Executioner's Song"), the TDL failed to communicate the music's rhythmic drive and pace. The pitch of bass instruments was also difficult to discern. The percussion, cymbals, and guitar at the beginning of "What Women Want" were missing their usual startling clarity — through the Rega ELA, you'd swear the musicians were in the room. Through the

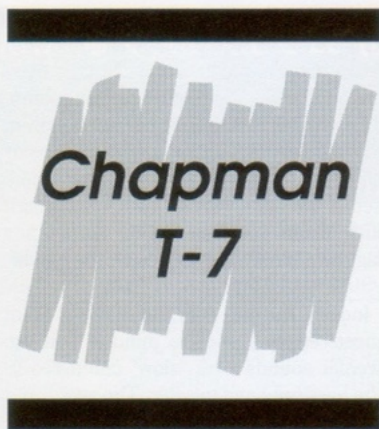
## Loudspeakers

Don't feel badly, until recently I'd never heard of Chapman Sound Company either. It turns out that Chapman have been quietly building high-quality loudspeakers for some two decades. Located on a picturesque island in the state of Washington, Chapman's Stuart Jones *et al* work to build speakers that offer far better value than more well-known (and heavily advertised) marques.

The Chapman T-7 (\$1495) is the company's less expensive model, with the massive T-9 (\$2695) topping off the range. Checking in at an imposing 44" H x 13" W x 10" D (and weighing almost 80 lbs.), the T-7 is Chapman's attempt to build a true full-range speaker system at an affordable price.

A three-way design, the T-7 employs a rather complex and sophisticated enclosure. The 1" soft dome tweeter and 7" bass/midrange unit are contained within a small, ported chamber at the top of the cabinet. The Chapman's 10" woofer is mounted in an extensively braced lower chamber, which Chapman refer to as a "modified dual port transmission line". In essence, the woofer compartment is split vertically by a brace that reaches from the front baffle to the rear panel. Additional braces run across the compartment's interior, with the result that the woofer chamber is effectively split into two smaller chambers, each of which empties into a quasi-transmission line (Bud Fried might call this a "line tunnel") that is vented via two small rectangular ports at the bottom of the rear panel.

This cabinet is built largely of 18mm MDF, with 25mm MDF used for the tweeter/midrange baffle, and additional 12mm sheets bonded to the cabinet above and below the woofer to form 30mm-thick "image plates", which Chapman credit with stiffening the cabinet and improving low-frequency imaging. One cannot help but be amazed at the tremendous amount of hand labor that must go into the cabinet's construction. There are a great many individual MDF pieces involved, each of which must be carefully glued and stapled in place. Like the Vandersteen 2Ci, the T-7's cabinet is essentially an open frame around the tweeter and bass/midrange chamber, with a black stretch cloth covering the entire speaker. Beneath the grille cloth, the enclosure is painted black, which creates an attractively slender, monolithic look. By eschewing the expensive cabinet finishes favored by other speaker companies,



Chapman are able to devote more of their resources to functional aspects of the T-7's design.

Thoughtful touches abound in the Chapman's cabinet design. For example, the grille framing around the tweeter and bass/midrange is radiused to eliminate sharp edges (and their diffractive effects), and felt pads are strategically located on the framing to further minimize diffraction. The upper chamber of the enclosure is lined with acoustic foam, and is vented via a small-diameter plastic tube. A small brace reinforces the area between the driver cutouts, and a felt pad on said brace prevents sound from reflecting back into the bass/mid driver. The T-7's woofer chamber is filled with fiberglass insulation.

Driver complement of the Chapman is equally impressive. Vifa supply the tweeter (ferrofluid cooled and damped) while the bass/mid is a Scanspeak unit, the latter being the same driver used in the excellent ProAc Studio 1. Boasting a cast magnesium basket, huge magnet and oversized voice coil, and lightweight long-fibre cone, this driver offers superb quickness and detailing. The tweeter and bass/mid are both flush-mounted on the baffle. The woofer is built for Chapman by Creedence, and features a damped long-fibre cone mounted on a high-temperature Kapton voice coil assembly. The magnet on this driver is appropriately massive. Two small wooden blocks are glued on the backside of the cone, adding mass to the cone and thus lowering the driver's resonant frequency. Square-drive (Robertson) wood screws fasten the three drivers in place. All internal wiring is via AudioQuest F-14 speaker cable, with double runs to the woofer, and all connections are soldered.

The T-7's crossover components are glued, quite unusually, directly on the *outside* of the speaker's rear panel (the lone exception being a huge inductor located near the woofer). The grille cloth hides these from view in normal use. Such placement minimizes microphonics, enhances component cooling, and also gives Chapman plenty of room in order to locate the individual components for minimal electrical interaction. The crossover components appear to be of high-quality (it's hard to tell in some cases, as they're all covered with black paint), and are hard-wired together. A pair of five-way, oxygen-free copper binding posts handle speaker cable termination (though the T-7 can be specially ordered with two sets of posts for bi-wiring). My review samples came in the standard, single-wire configuration.

External fit and finish are very good, with solid oak end caps at the top and bottom of the cabinet offering a nice touch of warmth in contrast to the T-7's acres of black grille cloth. By the very nature of the Chapman's design, it doesn't dazzle onlookers with gorgeous cabinetry, as Thiels are wont to do. Rather, the T-7 pleases the eye with its simple, elegant profile. Though a large loudspeaker, the Chapman doesn't visually dominate a room, and thus is less intrusive on the listening experience.

Rated sensitivity is a highish 89dB/1 watt/1 meter.

Chapman thoughtfully provide in their owner's manual a diagram which illustrates speaker placement options. I ended up with the T-7 only 18" or so out from the back wall, as bass performance fell off slightly further out into the room. This undermined depth reproduction somewhat, but I deemed it a worthwhile trade-off. Three feet out from the side walls seemed to suit the T-7s well, and I angled them in towards my listening seat. The Chapmans come equipped with non-adjustable nylon feet, but these were ineffectual on my carpeted floor, leading to thick, ill-defined bass. Stuart Jones sent me a set of Tiptoes, and this improved things considerably.

Chapman rate the T-7's low bass response as being -3dB at 28Hz, and I believe it. The first thought that crossed my mind after firing up the T-7s was, "Thank heaven the apartment below me is vacant." Bass power is simply stunning, though it does come at a price, as the T-7 is rather picky about the quality of the power amp driving it. Bruis-

ers like the B&K M-200 monoblocks and the Audible Illusions S120 had no problem maintaining a vise-like grip on the T-7's woofer. Smaller amps, however, like the excellent Naim NAP 140, seemed to lack the requisite control and authority, and in such cases the bass performance of the Chapman could get a little fuzzy.

**Price: \$1495**

**Contact:**

**Chapman Sound Co.**  
**P.O. Box 140**  
**Vashon, WA 98070**  
**(206) 463-3008**

Properly driven, the T-7 was especially impressive on large symphonic works such as Shostakovich's *Symphony No. 11*. Easily communicating the power and impact of the bass drum and tympani, the Chapman further dazzled with its combination of quickness, clarity and imaging. The soundstage set by the T-7 was huge (in height, width, and depth), this greatly enhancing my appreciation of the orchestra's size and energy. Strings and brass came across with excellent presence and immediacy, if perhaps sounding a bit cool tonally. Violins lacked a slight degree of body, though this was really a minor flaw. Note attack and dynamics were superb, this making it particularly easy to follow complex instrumental lines. The martial cadence section of the fourth movement came across with grim tension and drama, the Chapman displaying outstanding rhythmic coherence and drive.

Impressive though the T-7's bass was, even more gratifying was the Chapman's open, spacious sound. John Prine's *Bruised Orange* came across with wonderful presence and vitality. Acoustic guitars had great crispness and clarity, with subtle fingering

and string bending easily appreciated. Prine's vocals were equally alluring, with exceptional immediacy and clarity, greatly enhancing the "live" feel of this album. Tonally, he perhaps sounded a bit thin, though never to the point of harshness or stridency. The Chapman's fine rhythmic sense and drive were in evidence, though kick drum and bass guitar sometimes lagged a bit behind the rest of the band.

Indeed, the one criticism of the T-7 that most readily comes to mind is that the woofer sounds a bit "slow" compared to the bass/mid and tweeter. The attack and decay of bass guitar notes, for example, seemed a bit fuzzy compared to the razor-sharp definition of instruments reproduced by the bass/mid driver. This was not a gross effect by any means, and as noted earlier proper selection of the driving amplifier minimized such tendencies. Still, it was noticeable.

On the LP *Rickie Lee Jones*, the opening bass guitar riff on "Danny's All-Star Joint" was handled quite well, with good snap and bounce, but nevertheless it lacked some of the sass and energy heard when reproduced by the Tannoy DC3000. Not a huge difference, and to those not hypercritical of bass performance (as I am), perhaps insignificant. Jones' vocals were marvelously open and immediate, her subtle inflections and mood swings on tracks like "Company" and "Last Chance Texaco" portrayed convincingly. A slight lack of warmth in her voice? Perhaps. The Chapman's excellent imaging also helped convey the emotion and intimacy of the performance.

For whatever reason, I've been listening to Tonio K.'s *Notes from the Lost Civilization* a lot recently, with two tracks being particular favorites. The first, "The Executioner's Song", features Booker T.'s Hammond organ floating atop a bone-crunching bass guitar/drum riff. This is a mesmerizing track, with Tonio's keening vocals especially captivating. The T-7 was extremely effective in capturing the sweeping power of this tune, with the T-7's spacious imaging spreading out the musicians across the end of my room. Bass guitar and kick drum were a touch smeared, though not to the point of destroying the track's relentless drive and urgency.

The funk track "What Women Want" came across well, with Tonio's vocals vivid and clear. This song places great emphasis on note attack and dynamics, and the T-7 performed impressively. The chopping

rhythm guitar riffs had snap and fire, while snare drum came through with the requisite punch and impact. Kick drum was somewhat less satisfying, being a bit soft around the edges. Similarly, bass guitar lost a little of its spunk and punch.

Despite my minor quibbles regarding the Chapman's bass performance, I consider this an extremely impressive loudspeaker. It manages to combine the open, spacious sound usually associated with minimonitors with the excellent dynamics and bass power one expects from a full-range speaker. The best of both worlds, in other words. I suspect the raw speed of the bass/mid driver makes the woofer, by comparison, seem slower than it really is. Additionally, let us not forget one important point—this loudspeaker sells for only \$1495 per pair! Given its superb performance, its all too easy to mentally group the T-7 with outstanding competitors in the \$2500-\$3000 range. Which, while a tribute to the T-7's capabilities, is quite unfair. Compared to its like-priced rivals, the Chapman's minor faults fade in significance.

At its price, the Chapman T-7 is a tremendous deal, easily qualifying for "Best Buy" status. Offering value that shames many of its competitors, the T-7 should cause quite a stir in specialist audio circles. ■



A loudspeaker manufacturer for over sixty years, Great Britain's Tannoy Limited are a veritable high-fidelity institution. Though a member of the enormous TGI (Tannoy Goodmans International) conglomerate (which rings up annual sales in excess of 100 million dollars worldwide), in recent years Tannoy's presence in the United States has been limited largely to the professional audio market. With the recent introduction of their Series 90 loudspeakers, however, Tannoy are now ready to mount an aggres-

## Loudspeakers

sive assault on American audiophiles. Perhaps the most interesting units in the Series 90 line are the Dual Concentric models.

The DC1000 (\$699), DC2000 (\$995), and the top-of-the-line DC3000 on test here all share Tannoy's innovative 8" dual concentric drive unit. "Dual concentric" simply means that Tannoy place a 1" tweeter in the throat of the 8" bass/midrange driver. In effect, the tweeter sits *inside* the bass/midrange's voice coil. The goal is to make the acoustic centers (the point from which sound emanates) of the two drivers coincident, i.e., occupying the same point in space, and thus reduce time delay (phase) distortions. (See sidebar for further explanation.)

The DC3000 is a moderately-sized (36" H x 10.25" W x 12" D), floor-standing loudspeaker. A three-way design, the Tannoy is vented via a slotted port sited low on the cabinet's rear panel. Driver complement includes the dual concentric unit noted above, as well as an 8" woofer. Both the bass/midrange and woofer utilize polyolefin cones terminated by rubber surrounds. Also common to both drivers are reasonably strong-looking steel baskets carrying large magnet structures. (Rigid cast frames would have been nice.) The bass driver employs flat cross-section wire wound on a high-temperature Kapton voice coil former.

The tweeter features an aluminum dome with polyamide surround. Ferrofluid provides cooling and damping. The tweeter's motor assembly is mounted piggyback on that of the bass/midrange driver. Mounting the tweeter inside the bass/mid's throat carries some advantages and disadvantages beyond those discussed in the sidebar. On the plus side, the bass/mid's cone effectively horn-loads the tweeter, increasing its sensitivity and dynamic range. On the down side, the cone also narrows the tweeter's dispersion. Tannoy see this "controlled directivity" as an advantage, allowing one to place the speakers close to side walls without early reflections impairing stereo imaging. Perhaps.

Tannoy specify the DC3000's crossover as "overdamped first & second order with impedance correction", with crossover frequencies placed at 400Hz and 2.3kHz. As such, Tannoy have deviated from the model of a *pur sang*, all first-order (6 dB/octave) phase-correct crossover. Crossover components are of excellent quality, and

are hard wired together and glued to the input terminal block. Wiring connections to the crossover are soldered, while terminations at the drivers are via slip-on connectors (ugh). The DC3000 features two sets of gold-plated, five-way binding posts, in order to permit bi-wiring. Gold-plated metal links connect the posts for single-wire operation.

Both the bass/midrange and woofer are mounted on the front baffle using allen-head wood screws. The cabinet proper is built entirely of 18mm MDF. Polyester fiberfill provides acoustic damping. Extensive internal bracing of the cabinet is employed, this composed of particleboard. Vertical and horizontal braces intersect

Price: \$1595

Contact:

TGI, Inc.  
1225 17th St, #1430  
Denver, CO 80202  
(303) 293-9737

behind the bass/mid and woofer, with Tannoy using these braces to support and damp both drive units. Blobs of Mortite-like damping compound, compressed between driver and brace, help dissipate unwanted high-frequency energy in the drivers' frames. Adjustable spiked feet are provided to prevent the cabinets from rocking on carpeted floors. For those listeners with wood floors, Tannoy also include adjustable plastic feet.

External fit and finish are most impressive. My review samples were finished in black ash wood veneer (rosewood is also available), this happily covering *every* surface of the cabinet save the bottom. The mounting flanges of both the bass/mid and woofer carried decorative, pale blue trim rings (two rings for the dual concen-

tric driver, one for the woofer). A nice touch, this, and combined with Tannoy's veneered front baffle make listening *sans grille* visually appealing. Said grille consists of black cloth stretched over a well-built plastic frame. The grille impaired sound quality, but only slightly. Overall construction and (especially) finish quality of the DC3000 are exceptional for the price.

Rated sensitivity is a very high 92dB/1 watt/1 meter, and Lord knows that may well be conservative.

Tannoy gave no specific directions regarding room placement, thus I experimented until deciding upon a placement about two and a half feet out from the back wall, and roughly three feet from the side walls. Moving the speakers closer to the back wall augmented bass power (which the DC3000 really doesn't need), while impairing bass definition and overall image depth. A poor trade-off. The Tannoys sounded best toed in towards the listening position. I tried the DC3000 in both single-wired and bi-wired configuration, finding the latter preferable due to its significantly greater clarity and dynamics.

When I first saw the spec sheet on the DC3000, I blanched. "Slotted port", "92dB", and "30Hz" (Tannoy's stated -3dB bass extension in a typical room) jumped out at me. "Great," I thought, "this thing's going to sound like Godzilla floating an air biscuit." Wrong, Cerwin-Vega breath! When I eventually received my review samples, I was *not* greeted by the boomy, flatulent bass I had feared.

One of the first records I put on after hooking up the Tannoys was John Mellencamp's *The Lonesome Jubilee*, specifically the Stones-*esque* track "Rooty Toot Toot". I turned the amp's wick *way* up, and plopped down on the sofa. And almost soiled my skivvies.

I played drums as a young spud (not *well*, mind you), and I think I've a pretty good idea what a live drum kit sounds like. When Kenny Aronoff (one of rock's most underrated drummers) leaned into his kick and snare drums, I was simply flabbergasted by the sheer volume of clean, undistorted sound that hit me. No boominess, no mushiness, just a drum kit playing ungodly loud. I dove for the volume control, giggling like a fool. I was using a 45 watt amplifier at the time — and it wasn't even breathing hard.

Let me make this point straightaway: the Tannoy DC3000 boasts a combination of sensitivity, dynamic range, sound pressure capability, and audiophile-level sound quality that simply humiliates many "High End" speakers in this price range.

Lovers of large symphonic works often despair of ever hearing the true impact of an orchestra in their listening rooms, at least without paying a king's ransom for monster speakers and the hernia-inducing amplifiers to drive them. No longer. A quality 50 watt power amplifier (like the excellent Naim NAP 140) will drive the Tannoys to *punishing* levels, greater than most of us can stand. When I played Shostakovich's *Symphony No. 11*, it was with a certain degree of trepidation in my heart. And with good reason. When the orchestra let loose in the turbulent fourth movement, there was virtually no sense of dynamic compression or rounding off of impact — just raw power. What fun.

Of course, there's more to music than dynamic impact, and here the Tannoys also shone, if perhaps not quite so brightly. Overall tonal balance was very good, though with a slight tendency towards hardness in the midrange and treble. Strings and brass on the Shostakovich displayed fine clarity and crispness, but the violins were a tad steely in climactic passages. Similarly, trumpets sometimes came across with just a bit too much edge and bite. The DC3000 does not suffer bright ancillaries gladly — strident-sounding CD players are to be avoided. Bass drum and tympani were, not surprisingly, remarkable in their power and impact. The DC3000 offers not only quantity but quality of bass — I was constantly surprised at the tightness and quickness of the Tannoy's low-frequency performance. Was it the best I've ever heard? No, but it was awfully good, especially for a ported system.

Less captivating were the DC3000's soundstaging and retrieval of recording acoustic. While the Tannoy generally did a fine job of retrieving low-level detail, it did have some problems in the upper two octaves. This resulted in a slight lack of airiness and recording acoustic on the Shostakovich, diminishing the immediate, "live" feel of the performance slightly. Nor was the image of the orchestra especially broad (though depth reproduction was fine). The Tannoy's "controlled directivity" seemed to be a factor here, as instruments seemed to gather either at the midpoint between the speakers, or around the speakers them-

selves. Image *height* was also a bit lacking, extending only slightly above the tops of the speaker cabinets. While such imaging undercut the performance's credibility somewhat, I found the DC3000's amazing dynamics more than compensated, by communicating the sheer power and scope of the orchestra very effectively.

On more intimate music, like John Prine's *Bruised Orange*, the DC3000's imaging problems took on greater significance. While instruments came across with excellent crispness and focus, they weren't convincingly spread out across the end of my listening room. Rather, they were either clustered around Prine at center stage, or around the speaker cabinets. Prine's raspy voice is a tough test for loudspeakers, as it's all too easy to overemphasize the rawness of his vocals. The DC3000 had just a slight problem here, making John sound a bit more shredded than usual. Acoustic guitars sounded excellent, with fine note attack and clarity. The Tannoys did a superb job of capturing subtle dynamic shadings on both vocals and instrumentals, and this added greatly to the performance's realism. A slightly bent string, a little extra push on the keyboard, all were easy to discern, adding an essential humanity to the music.

Joe Jackson's album *I'm The Man* is an excellent test for a speaker's ability to convey rhythmic punch and drive. The title track rips along at a furious pace, with the bass guitar nervously idling in the background during breaks in the action. A "slow" speaker just sucks the life out of this tune, but the DC3000's excellent note attack and dynamics gave this track tremendous vitality and pace. Especially impressive were the pace and power of the bass guitar and drums. Jackson's vocals were fine as well, though the Tannoys tended to emphasize sibilants somewhat.

Throughout the LP *Rickie Lee Jones*, I was surprised and delighted at the way the DC3000 made minor shifts in volume level readily apparent, with these subtle dynamic variations adding a considerable degree of feeling and immediacy to Jones' vocals. "Company", for example, was particularly affecting for its delicate shadings and nuances of emotion. Jones' vocals were crisp and clear, if perhaps lacking a bit of body and warmth.

For me, the Tannoy DC3000 provides a welcome bridge between the tremendous SPL capabilities of mass-market boom

boxes, and the incisive, informative (and dynamically restricted) sound of many High End speakers. The mass-market slag is, of course, so colored in so many ways that no music lover could possibly take it seriously. Thus we are left with High End speakers that, while remarkably musical in a number of respects, often come up short when it comes to the fundamental task of reproducing live music's *power*. Those High End models that *do* offer exceptional dynamic range and high SPLs are often very inefficient, requiring enormously powerful (and expensive) amplifiers to drive them.

The DC3000 offers dynamics and gut-wrenching power to those who must suffer through life without megabuck, megawatt amps. And note that these speakers don't offer *just* brawn, with the DC3000's crisp note attack and fine rhythmic drive being very impressive. The Tannoy's compact size is another attractive feature, as the DC3000 doesn't visually dominate one's listening room like all too many High End speakers. To be sure, there *is* a bit of a trade-off involved. The Tannoys don't offer the stunning imaging and airiness of such established favorites as the Spica Angelus, Thiel CS1.2, or ProAc Studio 1. For those listeners who place a premium on such performance criteria, the Tannoys won't be a compelling choice. But to those who hunger for the power and impact of live music, the Tannoys are a godsend. ■

## Sidebar: Dual Concentric Drivers

Why are dual concentric drivers theoretically desirable? As many of you know, the mythical "perfect" loudspeaker would function as a true point source, with all sound radiated from a single locus. Such a design eliminates the time delays inherent in a conventional multi-way loudspeaker. Said time delays are caused (in part —

## Loudspeakers

crossovers are also a factor) by the *acoustic centers* (the point from which sound emanates) of the drivers being unequal distances from the listener's ears.

The human ear/brain mechanism locates objects in space by processing timing cues. For example, a sound off to your right will reach your right ear before your left ear, and the brain uses these different arrival times to locate the source of the sound in space. But what if there are *two* sources, from different directions, for the *same* sound? Assuming the two sources are the same distance from your ears, and the amplitudes (volume levels) of the two sources are identical, the ear/brain will "average out" the two sounds and conclude the sound is coming from a point in space midway between the two actual sound sources. A 1000Hz test tone, played at equal volume levels through both speakers of your stereo system, will appear to be centered between the speakers. Vary the relative volume levels of the two speakers, and you can move the test tone around in space. This is the principle underlying stereo music reproduction.

But what if we are listening to musical instruments, and not single-frequency test tones? Things then start to get very complicated. A saxophone, for example, produces sound over a broad range of frequencies and amplitudes — broad enough that a typical loudspeaker cannot adequately reproduce all of the frequencies and amplitudes involved with a single drive unit. Thus two (or more) drivers are employed — a bass/midrange for the low and middle frequencies, and a tweeter for the high frequencies.

Immediately we can see a problem, for while the saxophone generates all of its frequencies (fundamentals *and* harmonics) from a single point in space, the two-way loudspeaker is forced to divide the sax's sound between two drivers, with the *fundamental* tone of a note originating from the bass/midrange, but some of the *harmonics* coming from the tweeter. A conventional two-way speaker mounts the tweeter several inches above the bass/midrange, with both drivers fastened on the cabinet's vertical front baffle. This places the acoustic center of the tweeter *several inches above and forward* of the bass/midrange's acoustic center (note the acoustic center of a cone driver generally resides near the voice coil former/diaphragm terminus).

This effectively drives the ear/brain mechanism batshit. The bass/midrange and tweeter are two discrete sound sources, located at unequal distances from the ears, with each driver reproducing its own distinct frequencies and amplitude levels. There is no way for the ear/brain to "average" the sounds (as with our test tone example), and thus the sound of the saxophone is interpreted as emanating from *two* discrete points in space. Needless to say, this seriously impairs stereo imaging, making it difficult for the listener to place the saxophone in the imaginary soundstage.

Furthermore, this seriously impacts the saxophone's tonal characteristics. With the tweeter's acoustic center closest to the listener, the sax's upper harmonics reach the listener's ears *before* (and thus out of phase with) the fundamentals and lower harmonics, disrupting the horn's unique sonic signature.

Some loudspeaker manufacturers (Thiel, Vandersteen, Spica, etc.) address these problems by mounting their drivers on sloping or stepped baffles, thus moving the tweeter's acoustic center rearward, in order to place it the same distance from the listener's ears as the bass/midrange's acoustic center. As such (assuming a phase-compensated crossover, see below), the sound from the tweeter and bass/midrange reach the ears at the same time, and the problems associated with time delay are vanquished.

Except for a couple of small problems.

Firstly, for a two-way speaker with its drivers vertically oriented on the baffle (e.g., with the tweeter placed above the bass/midrange), there is exactly one (that's *one*) listening height at which both drivers are equidistant from the listener's ears. Stand up, or slouch way down in your listening seat, and time delay distortion returns. (This is why proper listening height is so critical to experiencing the magic of the Spica TC-50. Sit too high, and the speaker will sound thin and bright.) This restricts your options as far as seating arrangements go, and also causes interesting problems if you happen to be 6'2" tall, and your spouse clocks in at 5'4".

Secondly, the fact that the bass/midrange and tweeter are equidistant from your ears doesn't change the fact that your brain still perceives them as two discrete sound sources, occupying different points in

space. Remember, each driver is reproducing different frequencies and amplitudes, so the ear/brain doesn't "average out" their sounds and perceive a single sound source midway between the drivers. We'll call this "driver dis-integration".

To combat this, speaker designers place the bass/midrange and tweeter as close together as possible. Geometry tells us the further away we get from the drivers, the less significant the distance *between them* will be. Place your head a few inches in front of a speaker, and it's easy to discern the sound coming from each driver. Move ten or fifteen feet back, and the output from the two drivers seems to emanate from roughly the same point in space. This is one of the reasons huge, multi-drive element speakers sound so bad in small rooms. The drivers are so far apart on the baffle that one must choose a listening position *waaaay* back in the room for the sound of the drivers to blend together.

A dual concentric driver is different. The acoustic centers of its bass/midrange and tweeter are, for all intents and purposes, one and the same. Time delays due to the physical location of the two drivers are eliminated. Furthermore, the two drivers are always equidistant from the listener's ears *regardless of his listening position*. Stand up, sit down, roll around on the floor, it doesn't matter. Nor does it matter how close or far away you sit from a dual concentric driver, as bass/midrange — tweeter integration (due to their coincident acoustic centers) is theoretically perfect at any distance.

Of course, to fully combat time delay distortions, a dual concentric driver's crossover must be *phase-compensated*. A phase-compensated crossover is necessary because merely placing the drivers equidistant from the listener guarantees only that sound from the two drivers will reach the listener's ears at the same time. It does nothing to ensure that the frequencies produced by the two drivers are in time (in phase) with one another. Crossovers can create phase distortion of the audio signal, in essence causing *electrically* the same sort of time delays that improper driver positioning causes *physically*. A phase-compensated crossover ensures that all of a musical note's frequencies make it through to their respective drivers concurrently. ■

# DIGITAL CLOCK

Imprecise terminology has long been a problem in the audio industry. Even engineers who know better seem to revel in the chance to eviscerate the English language. The most obvious proof of this lies in the persistent use of the word "subsonic" to indicate frequencies below the range of hearing. Once and for all, here's how it works: "Subsonic" and "supersonic" refer to *velocity* (relating specifically to speeds below or above the speed of sound, respectively), while "infrasonic" and "ultrasonic" refer to *frequency* (relating specifically to frequencies below or above the range of human hearing, respectively).

As such, a "subsonic" filter attenuates sound below the speed of sound. A rather Zen-like concept, wouldn't you say?

Yes, I suppose I'm being pedantic to harp on this, but it indicates to me a sloppiness of thought that has no place in the world of high-performance audio equipment. Which brings me to the subject of digital audio.

It has become quite commonplace to use the terms "CD" and "digital audio" interchangeably. While Compact Disc is certainly the most obvious and pervasive manifestation of digital audio technology, it hardly represents digital engineering at its theoretical limits.

Or, to put it another way, judging the long-term viability of digital audio technology on the basis of CD performance is similar to drawing conclusions about the performance capabilities of analog technology based on the sound of an eight-track cartridge tape player. Whether or not we care to admit it, we are still in the Stone Age of digital audio. There's a lot more that can, and will, be done to improve the performance of both professional and consumer digital audio equipment.

Which brings us to the subject of these reviews: the Arcam Delta 70.2, Kinergetics KCD-20B, and CAL Tercet III. None of these players could be said to boast any stunning technological breakthroughs, yet their sonic performances are clearly superior to those of units quite recently considered "state-of-the-art". Improvements in CD player quality are coming fast and furious. Good news for those in the market for a quality player now — bad news for those who shelled out megabucks for units that are already hopelessly obsolete. Contributing Editor **Tony Chiarella** puts the Arcam, Kinergetics, and CAL through their paces.

— Kent Bransford



## CD Players

Anyone involved with high-performance audio is certainly aware of continuing improvements in CD hardware and software. While analog is still capable of higher resolution and musicality, there are certain benefits inherent to the compact disc format which will, eventually, bring the listener closer to the music than was ever possible with vinyl. Will any music lover admit that he looks forward to bolting from his seat, lifting a tonearm, cleaning and changing a record and then repositioning the arm, all at 15 minute intervals? Despite the LP's ability to transport us to the performance, I have never witnessed this behavior at a concert, nor do I consider it consonant with enjoyment of the musical experience.

While much has been written about their absence of surface noise, CDs also eliminate the problems of pitch variation, which plagues records punched with off-center spindle holes, as well as the audible wow accompanying even slightly warped albums. And yet, perhaps the greatest potential of the compact disc lies in its uninterrupted program length.

The time limitations of "long playing" records have often resulted in a compromise of the composer's (or conductor's) intent. Many of the major symphonic works must be reinterpreted in order to allow recording engineers to squeeze the composition within the confines of outer and inner grooves (Beethoven's *Ninth* is a notable casualty). As a result, the tempo, pacing, and contrasts within a recorded symphony sometime bear little resemblance to that work's live performance counterparts. The prospect of seventy five uninterrupted program minutes offers astounding potential for conductor and engineer alike.

While the CD format itself is undergoing the improvements necessary to compete with analog, the audiophile can, through system tuning, do much to ameliorate the disappointing performance often associated with compact disc technology. Although generally unrecognized by the owners of fine equipment, the nature of modern audio systems has largely been shaped by the demands of LP playback. For example, the elaborate equalization and gain circuitry necessary to decode (That's right, decode. Convert. Sound familiar, digiphobes?) phono cartridge output into a full-range amplifiable signal is responsible for much of the cost and complexity of high-performance preampli-

fiers. Comparing CD to LP on a system optimized for analogue playback guarantees an unfavorable outcome for the digital source.

Upon installing a CD player in my system, I found that the loudspeaker positioning which had yielded transparent sound and natural imaging with analogue source material now produced a vague, forward presentation. Thus, my speakers and I began a waltz around my listening room that ended with natural centerfill for the soundstage and a back spasm for me. In my room, for best reproduction of analogue software, the speakers were five and one half feet apart, center to center, and toed in 15-20 degrees towards the listener: the CD image achieved maximum coherence with the speakers four feet apart, pointing straight ahead. When we consider that the average moving coil cartridge has measured channel separation of approximately 30 db, as compared to greater than 85 db separation for any CD player, there seems to be objective justification for alternative speaker placement.

Additionally, I have found that all three of the machines under review sounded better when the transport isolation was enhanced. When used in conjunction with an old VPI turntable base, these players exhibited improved imaging and a greater sense of musical effortlessness. I relate these system tuning examples merely to illustrate that the need to optimize your front end is not limited to the turntable. Although they do not lend themselves as blithely to "tweaking", a little time and effort can yield startling improvements in CD sound. As far as the format has come, there is room for considerable refinement in both the electronic and mechanical constituents of the CD system.

After configuring my system for CD playback, I selected a handful of discs and proceeded to listen. If CD players are improving, then CDs themselves are doing likewise. I was surprised to find that a couple of recent CD releases actually sounded superior in some respects, to their vinyl counterparts. For instance, the CD version of *Nojima Plays Liszt* offers greater dynamic attack and more focused images than the (also excellent) album. My experience with the compact disc has been unexpectedly pleasant, thanks in large measure to the three CD players which constitute this review group. For those of you who have waited for digital to come of age, the current crop of hardware might

convince you to commit to the new technology.



## Arcam Delta 70.2

Considering the outstanding performance of their Black Box outboard D/A converter and the remarkable value represented by the Alpha Plus integrated amplifier, Arcam have given the Delta 70.2 CD player some tough acts to follow. From the moment I unpacked the unit, its construction quality and thoughtful design became obvious. Even the transport screws are ultra-quality items: nickel-plated brass affairs with large, knurled finger grips, which store in clearly marked holes on the back of the machine. These screws are indicative of the attention lavished on every facet of this player. Control flexibility is exemplary; of particular interest is a three-position knob which either dims or eliminates the fluorescent display. A marginal improvement in dynamics and detail was noted when the readout was turned off.

Opening the top cover confirmed that the Arcam's luxury construction was not limited to exterior features. Twin power transformers, Sorbothane pads to isolate the transport, and a hand-selected (aka "Crown") Philips dual 16 bit D/A chip are among this player's outstanding design particulars. Thus assured, from a parts and execution standpoint, of the Arcam's potential for excellence, I hooked the machine up and began the audition.

Sonically, the Delta 70.2 is a typical British product: unflaggingly neutral, detailed, and polite in its presentation of music. Listening to the Mobile Fidelity Ultradisc of Louis Armstrong and Duke Ellington *Together Again for the First Time*, I was impressed by the correctness of Armstrong's gravel-throated yet silken voice. Clarinet, trumpet, and saxophone were rendered with natural bite and overtones, and their

images were placed well above the loudspeakers. This player seems best suited to reproducing vocal and upper-octave information. During the "Bird on a Wire" track from the Jennifer Warnes album *Famous Blue Raincoat*, Warnes' voice floated between and above the loudspeakers, replete with high frequency detail and ambience.

Stringed instruments were handled by the Arcam with similar aplomb. On *Tafelmusik*, the complex signature of the violins was not simplified and homogenized to the extent I have come to expect from CD. Through the Arcam, both the bowing of the strings and the resonance of the body were identifiable.

And yet, despite this machine's undeniable attributes, the Delta 70.2 fails to satisfy in regard to several musically significant parameters. The most troublesome aspect of the Arcam's performance is its inability to produce a realistic range of dynamic contrasts. The *Nojima Plays Liszt* CD begins with the explosive "Mephisto Waltz". The vinyl counterpart of this recording leaves no doubt as to the impact

**Price: \$1195**

**Contact:**

**Audio Influx Corp.**  
**P.O. Box 381**  
**Highland Lakes, NJ**  
**07422**  
**(201) 764-8958**

with which Nojima imbues his interpretation of this composition. The Arcam, however, provides a skeletal presentation of this performance. The power of Nojima's rendition, the "flesh and blood" of this piece, is obscured by this player. Returning to the Jennifer Warnes track, the drums, while reproduced with proper fundamentals and timbre, lacked their characteristic attack and weight.

The Arcam is also an underachiever in its delineation of instrumental lines. The Vivaldi concerto from the *Tafelmusik* CD features a harpsichord doubling the string section. The Delta 70.2 congeals the sound of the instruments, making it nearly impossible to follow the harpsichord as a musical source distinct from the strings. The strings, not surprisingly, are themselves homogenized, tending to sound like an amalgam of one or two instruments rather than a number of individual sound sources. The problem I describe here is exacerbated when listening to full scale orchestral works. Chesky's reissue of Mozart's *Jupiter Symphony* is a case in point. During the fortissimos of the first movement, the soundstage collapses, and the sense of a large group of individual performers is replaced by a feeling of strain and confusion. This effect was not associated with playback volume, as I repeated this test at a variety of listening levels.

My final quibble with the Arcam concerns its imaging capabilities. Although possessed of excellent height, focus, and centerfill, the width and depth of soundstage presented by this unit did not reach the level of dimensionality provided by the other players in this survey. "Summer-time" from the *Nixon Sings Gershwin* CD features the vocalist accompanied on piano by Lincoln Mayorga. Through the Kinergetics KCD-20B (as well as Arcam's own extraordinary Black Box, which I used as a reference throughout this survey), there is a haunting distance between Mayorga's piano and Nixon's upfront vocal which creates the atmosphere and mood for the performance. Through the Delta 70.2, the piano is brought forward almost into Nixon's depth plane, thereby editorializing the work's distinctive character.

The Arcam Delta 70.2 is an extremely well-made machine that proved totally reliable during an extended evaluation period. Its tonal neutrality, thoughtful control features and solid feel should make this unit a strong candidate for many music lovers, especially those who favor chamber ensemble or small group vocal and jazz performances. But while the Arcam's price is justified from a parts and construction standpoint, \$1,200 can buy a higher overall level of CD sound quality.

**POSTSCRIPT:** After my experience with the Kinergetics KCD-20B, I used the Arcam to drive the power amplifiers via its variable outputs. In this mode, the player sounded worse, the sound becoming more

constricted and thin. I believe the variable output on this machine, which can also be accessed from the hand-held remote control, is in fact intended to provide the user with full remote operation through stereo systems which are manually operated. ■



California Audio Labs was the first audio company dedicated solely to elevating the performance level of CD playback. While their early machines — heavily-modified Magnavox units — offered sound quality that embarrassed even the best mass-market offerings, these products looked and felt as if they were made in someone's garage. Many serious audiophiles, who acknowledged the superior sound reproduction offered by CAL, refused to buy these CD players for just this reason.

Enter the new generation of CAL products. Built from the ground up in the USA (even the transport: a first in CD manufacture), these machines offer excellent construction quality and enough convenience features to satisfy the most fanatical button pusher. Those of you who, like myself, are dependent upon the cassette for car, boom box and Walkman listening will rejoice at the inclusion of controls to assist with taping from one or more CDs to a cassette. The buttons, labelled "Tape Length", "Side A/B" and "Disc Link", allow fool-proof programming, with no possibility of cutting off a song due to insufficient tape time. Additionally, the "Disc Link" feature tracks the time remaining on the cassette while selections from several CDs are being recorded, a useful feature when making "Greatest Hits" or compilation tapes.

I should also mention that the Tercet's remote performs better than the Magnavox units supplied with the Kinergetics and Arcam players. Commands such as

Now  
Hear  
This...

Subscription Forms  
(Page Omitted)

Subscription Forms  
(Page Omitted)

...because  
music  
matters.

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track access and pause are executed instantaneously. Remote operation with the CAL is also accomplished over a broader range of positions within the listening room than is possible with the other remotes. I have never been able to use a CD remote to better advantage. Bravo, CAL!

California Audio Labs have consistently attempted to make compact discs sound like analog. I can offer no more succinct description that will accurately convey my experience with this machine. Of course, the Tercet does not rival the best analog playback, but it is easy on the ears, as both live music and top-notch records are easy on the ears. This effect is not achieved via artificial warmth or euphonics, but by a (subjective) reduction of the digital garbage that normally accompanies the music when listening to CD. If you think digital is always harsh, or strident, or subconsciously irritating, this might be the player for you.

The CAL designers seem to have concentrated their efforts on providing the Tercet III with superlative midband characteristics. This player exhibits liquidity and texture that draws the listener into the performance. Returning to my *Jazz at the Pawnshop* example, the xylophone on the "Limehouse Blues" track emerged from a silent background that lent an iridescent quality to the attack, reverb, and decay. The drums here were equally well rendered, with transient "snap" that illuminated the sharp strike of the brush against the snare. Female vocalists also benefitted from the Tercet's midrange abilities. Jennifer Warnes' rendition of "Bird on a Wire" was breathy and rounded; the presentation seemed more seductive than through the other machines. Joan Armatrading's "Down to Zero", from her eponymous debut album, exhibited a similar richness, and the excellent dynamic capabilities of this player reproduced both her voice and guitar with the power and immediacy that is crucial to her music.

The fabulous midrange characteristics of the Tercet are not, unfortunately, echoed in equal measure at the frequency extremes. Trebles are detailed and extended, but seem wispy and undernourished in relation to the midband. The trumpet and clarinet from the Armstrong/Ellington CD lack the same degree of brassy bite provided by the Kinergetics KCD-20B. Armstrong's voice through the Tercet is a mixed bag; it misses the last degree of raspiness that is his characteristic, but it is so velvet-smooth that you may prefer the Tercet's

interpretation. I didn't. Marni Nixon's high-pitched vocals were pleasant and extended, but sounded reduced in power as she hit the top of her range.

Stringed instruments, on the other hand, fared better. The violins and celli from "Entrance of the Queen of Sheba" on the *Tafelmusik* CD were reproduced with their full measure of overtones. On the Vivaldi concerto from the same disc, the Tercet exhibited its ability to delineate instrumental lines, as the harpsichord and strings were presented as distinct parts of a coherent whole. Additionally, the bassoon on this piece was particularly well rendered and sounded, unambiguously, like a bassoon. When listening to orchestral music, my earlier suspicions regarding the Tercet's frequency extremes were confirmed

**Price: \$1295**

**Contact:**

**California Audio Labs**  
**16812 Gothard St.**  
**Huntington Beach, CA**  
**92647**  
**(714) 841-1140**

— the highest and lowest frequencies just don't keep up with that excellent midrange. All the same, this player was at its best reproducing symphonic works. The Tercet's listenability keeps you in your seat for all four movements. Mozart's *Jupiter Symphony* sounded as good through this machine as through any realistically-priced CD player I have heard, with exceptional dynamics and instrumental delineation coupled with a real sense of composure during crescendos. Still, the tympani, while possessed of depth and weight, lacked the low frequency authority and power provided by machines which excel here.

In general, the frequency extremes of the Tercet are not rolled, but their impact is

diminished compared either with other machines or with the player's own middle registers. The drum on the Jennifer Warnes track, for instance, is reproduced with appropriate depth and air, but through the Tercet, the punch and jolt is curtailed.

The imaging of the CAL is quite good in most respects. The width of the soundstage is nearly the equal of the Kinergetics, with instruments occasionally — but not consistently — appearing to extend beyond the speakers' outside edges. Image height is fantastic. The clarinet in "Drop Me Off in Harlem" from the Armstrong/Ellington disc hovers well above the right loudspeaker. Vocalists are flattered by this effect. Marni Nixon and Jennifer Warnes are, through this machine, located dead center and at a realistic height above the speaker cabinets. The sound is lofty and seductive, two terms rarely associated with digital. The CAL's strong suit in the imaging department is its centerfill, where there is more focus and a greater sense of proportion than with the other machines. The Nylons' "Silhouette", from their album *One Size Fits All*, exemplifies this and other attributes of the Tercet. Voices emerge from a silent background at distinct locations within the soundfield, and the listener could differentiate among the voices solely based upon their consistent position on the stage. In other words, focus is exemplary, and center images are unwavering.

Where the Tercet falls short is in its recreation of depth. Mayorga's piano on "Summertime" is, as with the Arcam, in the same plane as Nixon's voice. With the finest (and more expensive) player/decoders, this is not the case. This lack of depth is exacerbated by a forward quality to the sound of this player that will help its performance in some systems and obscure its attributes in others.

I believe the Tercet will win many friends, and California Audio Labs will indeed gain many customers. Divorced from the audiophile parameters enumerated in this review, the Tercet's great strength is its refusal to sound unpleasant. You can listen to this player for hours without the irritation that usually accompanies long-term CD listening sessions. This is a high-performance machine with the solid feel and control flexibility of sonically-inferior Japanese units. When you consider that most high-quality sound systems, other than megabuck assaults on the state-of-the-art, are themselves compromised at the frequency extremes, the Tercet's failings will go

unnoticed in those systems where it will most likely be used. If your goal is to listen to music rather than critique equipment, I urge you to audition this product. ■

## Kinergetics KCD-20B

Of the three CD players submitted for evaluation, the Kinergetics has been the most difficult and time-consuming to review. Initially, I dismissed this machine as a mass-market product masquerading in an upscale package; however it can, under certain circumstances, provide a level of sound quality rivaled only by the best outboard processing units. But while the KCD-20B outclasses the competition, the nature of those aforementioned "certain circumstances" will determine if this machine will excel in your system.

Physically, the Kinergetics is a handsome unit, sporting a heavy-gauge aluminum rack-mountable faceplate, anodized in a rich coffee brown. The rest of the enclosure is an equally substantial steel box with a thick plastic lid. The supplied wireless remote is the ubiquitous Magnavox unit supplied OEM to such manufacturers as Arcam, Madrigal/Proceed, Conrad Johnson, and Mod Squad. A look inside reveals a Magnavox transport and digital board which feeds a D/A and analog output board of Kinergetics' own design and construction. This board is powered by a separate transformer (an expensive Holden and Fisher toroidal) and features high-quality parts such as Wima capacitors, Wonder Caps, and a Noble potentiometer which can be accessed from the front panel. This potentiometer, and the output section which it governs, are responsible both for the superior performance of which this unit is capable and for curtailing the variety of systems in which it will shine.

As I noted previously, my first reaction to the KCD-20B was decidedly negative. Af-

ter playing the unit continuously for several days (as is my practice with all the equipment I evaluate), I listened critically, and was immediately struck by the dull, lifeless sound that was emanating from the general direction of the loudspeakers. On one disc after another the constricted dynamics, wispy, rolled highs, prominent midbass and absence of deep bass precluded my enjoyment of music through this player. Perhaps, I thought, the Spectral preamp did not mate well with the Kinergetics. Intent on giving the player every opportunity, I replaced the Spectral with a Conrad-Johnson PV-6. The resulting change in sound was minimal, with more midbass emphasis and a smoother high frequency rolloff; this was still not the sound I expected from an expensive source component.

Friends of mine, whose ears I trust, had told me Kinergetics products seldom fail to impress. The company has a reputation for delivering consistently excellent sound at trade shows. Such reports were at odds with the results I had been obtaining with their CD player, and these preconceived expectations served to magnify my disappointment. I suppose the Kinergetics wasn't horrible, it was slightly better than the two year old Magnavox that I use in another system. But that Magnavox cost \$169 and is, in the scheme of digital technology, geriatric. And then I took advantage of that potentiometer.

The innocent-looking knob on the front panel is the user's link with the Kinergetics' line-level preamplifier. The KCD-20B has a 6 volt maximum output, which can fluster the input section of virtually any modern preamplifier. (Note, though, that the KCD-20B's volume knob controls both sets of the player's outputs, and anyone finding his preamp's line stage overloading should simply lower the KCD-20B's output level.) Even if your preamp is one of those "overload-proof" varieties from Minnesota, passing the KCD-20B's signal through an additional line stage will degrade the sound. The Kinergetics is meant to be run directly into the power amplifier, and the extraordinary (for CD) sound quality of which this unit is capable was only achieved with the system configured in this manner. I hasten to add that the owner's manual supplied by Kinergetics is absolutely devoid of any information which would assist the purchaser in discovering this fact. Indeed, the manual is nothing more than a photocopy of a Magnavox owner's guide. The purchaser of a product

like the KCD-20B deserves better.

When driving the power amps directly, the Kinergetics equalled or surpassed the other two players in almost every parameter of musical significance. The KCD 20B takes the midrange quality of the CAL Tercet and extends this strength to the frequency extremes. Bass reproduction was stunning. Drums, in particular, are gloriously reproduced. Through this machine, the drums at the opening of Jennifer Warnes' "Bird on a Wire" have a sense of weight, depth, and punch that rival the LP. Similarly, the bass and drums on "Limehouse Blues" from *Jazz at the Pawnshop* are portrayed with heft, power, and bloom; furthermore, when listening to this piece on the Kinergetics, the delineation of instruments increased my awareness of the interplay between the musicians.

At the other end of the frequency spectrum, the Kinergetics continued to assert its superiority. The oboe on the "Gabriel's Oboe" cut from Ennio Morricone's *The Mission* soundtrack was effortless and extended, with a squalliness that is characteristic of the instrument. Reproduction of the xylophone on "Limehouse Blues" was exemplary, with precise attack and a

Price: \$1195

Contact:

Kinergetics Research  
6029 Reseda Blvd.  
Tarzana, CA 91356  
(818) 345-5339

quality of high frequency reverberation that is surpassed only by several monstrously expensive transport-processor systems to which I have had access.

Despite this player's prowess in the areas of extension and detail, the Kinergetics'



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soundstaging and imaging capabilities are its greatest attribute. Returning to the Jennifer Warnes song, the opening drum beat is accompanied by a shaker. Through the KCD-20B, the sound of the shaker was located about a foot to the outside of the left speaker. Although I regularly achieve a broad soundstage through my system, this was the first time I have consistently achieved these results with a CD player. Height and depth of image were also impressive. For example, Mayorga's piano on "Summertime" was placed well behind Nixon's voice. But while images with the Kinergetics were correct in perspective and in proportion to each other, the individual images lacked the same degree of three-dimensionality provided by the best analog sources. Additionally, centerfill focus and precision, while good, were not the equal of the CAL Tercet. The Nylon's "Silhouette" was reproduced with clarity, delineation, and extension, but the recreation of four separate voices, emanating from discrete locations in space, was better captured by the CAL.

I am probably being overly critical of the Kinergetics. No audio component, and certainly no CD player, could sound superior to its competition on every recording. What is most significant about the Kinergetics is its ability to outperform the other players on the vast majority of compact discs in my collection. If you are in the process of assembling a system on a budget, and if you currently own neither a turntable (gasp!) nor a record collection (double gasp!), the possibilities are staggering.

For around four thousand dollars, a prospective purchaser could acquire the KCD-20B, Adcom GFA-555 power amplifier, and a pair of JSE Model 2 or Thiel CS 3.5 loudspeakers. The result would be a super system with stunning imaging and resolution. Bass and volume capability would be on a par with the finest conventional stereos. The audiophile who cares less about SPLs, or whose room/lifestyle cannot accommodate a monster sound system, could assemble a KCD-20B, NAD 2100x, and ProAc Studio 1 system for around \$3,000, complete with speaker stands and cable.

The Kinergetics will be a more problematic choice for a potential customer who already owns a fine stereo. While I was unable to successfully match this player with a preamp, you might have better luck than I did. My best advice would be to seek the counsel of a quality dealer, and to

audition this machine in your own system before purchase.

(Editor's Note: While I certainly agree with Tony's conclusion that the Kinergetics sounds better run directly into one's power amplifier, I fear he may scare off the music lover who wishes to run the KCD-20B through his preamp line stage. In my experience, while this latter configuration is not optimum, it still offers excellent sound reproduction. System compatibility may well be the culprit here, and I thus suggest you try the KCD-20B in your own system before eliminating it from consideration.)

## CONCLUSIONS:

While I have my favorites among these players, there are different individuals to whom each will appeal. The Arcam seems destined for the carriage trade, who will appreciate this machine's superior construction and subdued sonics. This is not a bad player, and had it been reviewed a year ago, it would have compared quite favorably to the machines available at that time. The CAL Tercet III is a relatively new product, and is as good a conventional player as I have heard for under \$1,500. Those of you who have already assembled a system and want to add a CD source without revamping your entire setup will likely end up with a Tercet on your component rack — it's that good. Then, there's the Kinergetics option. For the adventurous audiophile willing either to own a CD-only system, or to experiment with his current components in the hope of extracting this machine's full potential, the KCD-20B delivered the finest sound quality of any player in this survey, albeit under idiosyncratic setup conditions. The choice is yours, and I hope you have as much fun in making that choice as I've had in presenting it.

## ASSOCIATED EQUIPMENT:

In order to predict the players' performance in a variety of systems, these reviews were conducted using a wide assortment of ancillaries. Electronics were the Spectral DMC-6 and Conrad-Johnson PV-6 preamplifiers, with DB Systems DB-6A+ monoblocks, Dynaco Stereo 70, and Spectral DMA-50 (bridged) amplifiers providing power. An Arcam Black Box with "Crown" D/A chip was used as a digital benchmark. Interconnects were either MIT MI-330, MI-330 Shotgun, or Van den Hul D-102 Mk. III. Rogers Studio 1a speakers with Van den Hul 352 speaker cable were employed throughout the testing. ■

Reviews  
scheduled for  
upcoming issues:

Affordable  
outboard D/A  
converters from  
Aragon, Arcam,  
British Fidelity, PS  
Audio, Proceed,  
and others as  
available.

## Second Look: Rogers Studio 1a

One of the great satisfactions of High End audio — finding a modestly-priced component that competes sonically with significantly more expensive products — has the potential for being a tragedy of equal magnitude. All too often, this type of offering is auditioned within the limits of a price-constrained system, thereby obscuring the performance level of which the product is capable. And so it is with the Rogers Studio 1a, a speaker whose musicality and neutrality seem limited only by the quality of components with which it is used.

The Studio 1a is an evolutionary design. The original Studio 1 (itself evolved from the Rogers "Export Monitor" model), in production for seven years, was a speaker whose limited consumer popularity in this country was at odds with its acceptance by small recording studios as a reference monitor. That speaker mated a Celestion soft dome tweeter and super-tweeter with an 8" bextrene cone woofer of Rogers' own design and construction. In the twilight of its production, several features of the speaker seemed anachronistic. The deeply recessed front baffle, a bextrene woofer at a time when all lesser models in the product line used the polypropylene designs championed by Rogers, and moderate (86db/1w/1m) sensitivity all highlighted areas in which this fundamentally excellent speaker might be refined.

Bearing little resemblance to its predecessor (save for its intended use as a studio monitor, and the approximate dimensions of its cabinet), the Studio 1a represents Rogers' current thinking on the design of low-coloration monitor loudspeakers. A two-way ported system using Celestion's aluminum dome tweeter and the 8" polypropylene woofer developed for the (less expensive) LS-7, the Studio 1a boasts drivers whose quality is beyond reproach. At 89dB, sensitivity is up 3 db from its predecessor. Both the cabinet and grille have been thoroughly redesigned. Of particular note is the cabinet port, which has been located to minimize turbulence within the speaker, a goal echoed in the execution of the port itself, whose exit and entrance surfaces have been chamfered to enhance airflow. The speaker is now biwireable, and here we touch upon one of my quibbles with the speaker: The binding posts are flimsy, provide insufficient contact area if used with heavy spade lugs, cannot be tightened adequately (they invariably loosen during exuberant listening), and lack the gold plating commonly found on

the posts of high performance speakers.

More than most "conventional" loudspeakers, the Rogers demands extreme care in setup and placement. In addition to the benefits of biwiring, the choice of speaker support is critical, as I realized upon the arrival of my Target HJ15/3 stands. Until that time, I had believed that the Rogers S40 stands were an appropriate choice. Let me say flatly, if you are using a high-quality bookshelf speaker with anything other than an appropriately sized Target "superstand", then you are probably cheating yourself of the image specificity and dynamics of which your speakers are capable.

As the Rogers are a narrow-dispersion design, placement is critical relative both to room boundaries and to the listening position. In my squarish room, locating the speakers 4' from the rear walls, 3' and 4' (for the left and right speakers, respectively) from the side walls, 5' apart and about 6' from the listening position, toed in very slightly, yielded the best soundstaging and tonal characteristics. And yet, the question remains, how do they sound?

Simply put, from roughly 50Hz upward, the Rogers Studio 1a is about as neutral and coherent as any loudspeaker made. Period. The speaker adds no significant tonal coloration from the upper midbass through the treble. Those (all too rare!) recordings mastered with a flat frequency spectrum are reproduced in like kind. Conversely, recordings containing an editorialized tonal content are rendered with an accurate portrayal of the engineer's intentions. Listening to *Nixon Sings Gershwin*, the cavernous acoustic captured by Johnson is recreated with its spaciousness intact. Nixon's high-pitched vocals and sparse harmonic overtones are nicely contrasted with Lincoln Mayorga's rich, liquid, slightly distant piano. The accuracy of this speaker extends to its portrayal of dynamics. Nojima's rendition of Liszt's "Mephisto Waltz" is reproduced with an explosiveness which only two speakers in my experience (the B & W 801 Matrix Series 2 and the Duntech Sovereign) have equalled.

Still, to my ears, the greatest accomplishment of the Studio 1a is its outstanding coherence — it refuses to sound as though its frequency range is spanned by two drivers. In this respect, when set up correctly and accompanied with source and electronics of stellar quality, it sounds more

like a full-range electrostatic panel than a moving-coil box speaker. As a result, these speakers "disappear" into the soundstage. Some vaunted "mini-monitors" share this trait, but lack the punchiness and frequency range to provide a convincing illusion of live music.

The "Bird on a Wire" track on Jennifer Warnes' wonderful *Famous Blue Raincoat* album has proved to be an excellent test of speaker coherence. On lesser speakers, the wide-frequency background vocals become segmented as a function of driver response and their points of origin are obscured. Through the Rogers, these vocals are presented as rounded, distinct images, unwavering in location.

Only when comparing the Studio 1a to speakers selling for several times its price do shortcomings become evident. There is a slight loss of subtle detail compared with the Martin-Logan CLS, Wilson WATT, and Rogers' own LS 5/9. I believe the robust yet mundane crossover and mediocre internal wiring account for this loss. Tweakers, take note! Although imaging is exemplary for a large box design, there are several planars and nearfield monitors that offer marginal improvements in soundstage width. The Duntech Sovereign and B&W 801 Matrix do a better job of recreating the weight and authority of an orchestra playing large scale symphonic works. Finally, the similarly-priced Vandersteen 2Ci offers an additional octave of bass extension, albeit with less timbral refinement and some high-frequency raspiness. Of course, the Rogers has its own strengths as well.

The Rogers Studio 1a represents a level of achievement at odds with its modest price. For the audio enthusiast who has set a ceiling on the cost of his system, the Studio 1a opens a new world of possibilities — the purchase of the Rogers could represent a savings of \$2,000 or more compared to speakers of similar calibre. This sum could be applied to better electronics or front-end hardware. The end result will be a system that, especially in the critical midrange, offers greater refinement than would be the case with more expensive speakers mated to inferior ancillaries. If you can discriminate between musically natural sound and the attention-grabbing "flash" of the showroom demo, and if you can live with a speaker that doesn't resemble a NASA prototype or a modern sculpture, the Rogers Studio 1a will not disappoint. Dare to spend less!

— Tony Chiarella

As we go to press, the dollar continues to lose value against the British pound. The situation in the Middle East being what it is, there is every chance that things will get worse before they get better. As such, it might be a good idea to act now if you have been contemplating the purchase of a British audio product. With fall being the audio industry's peak selling season, one would hope any price increases will be held off until after Christmas. In any event, it seems unlikely that prices of British gear will be going down anytime soon.

The "Best Buy" check-rating system is quite simple. Two checks (✓✓) indicate the product was selected by *Hi-Fi Heretic* as one of "The Ten Best Buys In Audio" in Issue Ten. One check (✓) indicates the product provides an exceptionally good combination of performance and value, if not quite up to the level of those products on the "Ten Best" list. No attempt has been made to rank the products beyond these ratings. Compatibility with your own audio system and listening room will play a major part in determining which of these products is right for you.

New entries are denoted by a black arrow in the outside margin. These arrows may reflect new products added to the listings, or they may indicate a price change of a product already listed. Recent experience with a Revolver Rebel has cooled my enthusiasm for that model. The build quality of the Rebel is rather medi-

# MEATY BEATY BIG AND BOUNCY

ocre, certainly not in the same class as the Rega models. In addition, the Rebel now comes equipped with the Goldring Elan cartridge, a rather undistinguished budget model.

Earlier in the year, the new American importers of Rega equipment dropped the price of the Planar 2 to \$450. As things now stand, the Planar 2 is the best budget turntable available, though for sheer value I still prefer its more expensive brother, the Planar 3.

Please, use this feature only as a *guide* to deciding what components may bear further investigation and auditioning. Do not use it as a shopping list. You must decide which products provide the most satisfying musical performance.

Don't be intimidated by the auditioning process — as I've said before, if you're capable of appreciating music, you're capable of evaluating audio equipment.

Remember, all the hi-fi jargon in the world counts for not a whit when it comes down to the essential question of: Does this product sound like music? If you put all of the audio doubletalk out of your mind, and simply judge an audio component the same way you would judge a live musical performance, you'll have no trouble making an intelligent buying decision. You'll choose the products which best communicate the joy of music — which is, after all, the whole point.

— Kent Bransford

## TURNABLES ● TONEARMS ● CARTRIDGES

Product	Price	Best Buy	Comments	Review
Dual CS-505-3	\$360		Least expensive turntable worth considering. Can sound a bit crude compared to more expensive decks.	NA
Revolver Rebel	\$399		Standard Revolver with cheaper arm. Includes Goldring Elan cartridge. Iffy build quality. Regas better value.	NA
Systemdek IIX	\$559	✓	Table superb, arm OK. Armless model (\$359) great with Rega RB300. Punchy, detailed sound. Bargain in either version.	#9
Rega Planar 2 Rega Planar 3	\$449 \$599	✓	The classic affordable table. Elegant design, marvelous sound. 3 is better buy. Tonearm on either is incredibly good.	#2
Linn Axis	\$895	✓	Sophisticated motor drive circuit, clever suspension design. New, stronger MDF base. Akito arm now standard.	#8
Linn Sondek LP12	\$1295	✓✓	Superbly musical table. Extremely well-built and reliable. The standard against which all others are judged. Price creeping up.	NA
Roksan Xerxes	\$1800		Clever bearing and motor drive system. Sound is quick, dynamic and detailed. Mates well with Rega arm. Expensive.	#8
Rega RB300	\$299	✓✓	Sophisticated one-piece cast aluminum armtube. Superb bearings. May be the single best value in audio.	NA
Roksan Tabriz	\$350	✓	Innovative budget model borrowing much of the engineering (and sound quality) of more expensive Artemiz. Fine value.	NA
Linn Akito	\$395	✓	Significant improvement over earlier (and less expensive) Basik. Rigid design. Beats Basik as best budget partner for LP12.	NA
Eminent Technology Two	\$950	✓	Innovative air-bearing design. Excellent detail and imaging. Set-up a bit involved. Remarkably sophisticated for the money.	NA
Linn Ittok LV II	\$1195		Exceptionally rigid design, with great bass performance. Tonal balance can sound a bit forward. Expensive.	NA
Arcam E77Mg Arcam P77Mg	\$120 \$150	✓	Magnesium body improves resolution, allows solid mounting. P77 more detailed, open. Both models excellent value.	#8
Rega Elys	\$225	✓	Superb combination of clarity, body and dynamic impact. Three-point mount best suits RB300. Best buy MM cartridge.	NA
Audio-Technica AT-F5	\$250	✓	Now officially imported by A-T. Open, detailed, excellent rhythmic drive. Can sound a bit bright. Best budget MC.	NA

## TURNTABLES ● TONEARMS ● CARTRIDGES (cont.)

Product	Price	Best Buy	Comments	Review
Goldring Eroica Goldring Eroica L	\$275 \$325	✓	Smooth, relaxed sound. Lack usual MC brightness. Low-output L slightly more detailed. Good value for the price.	NA
Audio-Technica AT-OC9	\$395	✓	Now imported by A-T. Detailed, involving sound. Dynamic. Simply the best value low-output MC cartridge in America.	NA
Audioquest 404i-MH	\$550		Medium-output MC works well into preamps lacking MC stage. Clear, detailed sound without harshness.	NA

## INTEGRATED AMPLIFIERS

Arcam Alpha II	\$349	✓✓	Marvelous combination of detail and warmth. Optional MC input. Beautifully built for the price. Best integrated buy.	#11
Onix OA-20	\$399	✓	Lively, exciting presentation. Minimal facilities. Superb build quality, and utterly gorgeous styling. Fine value.	#11
Creek 4040 Creek 4140	\$450 \$550	✓	Perennial favorites. 4140 more powerful, has MC input. Sound on both is sweet, clear, dynamic. Excellent value.	#10
QED A240SA II	\$569	✓	Amazing clarity and presence. Tonal balance excellent. Superb phono stage. Recent price drop makes it great value.	#11
Audiolab 8000A	\$695		Lively, detailed sound. Powerful, crisp bass. Extensive control functions. Exceptional build quality for the price.	#12
Onix OA-21	\$750		Big, dynamic sound. Optional power supply pricey, but effective. Choice of MM or MC phono board. Stunning looks.	#4
Naim NAIT 2	\$825		Usual Naim strengths of superb pace and tempo. Smooth balance. Down on power, restricted bass dynamics.	#10
Creek 5050	\$995		Effortless musicality, with trad Creek smoothness and listenability. Numerous control functions. Quite expensive, innit?	#12
Exposure X	\$1025		Big, smooth, dynamic sound. Choice of MM or MC inputs. Excellent build quality, but homely. Limited availability.	NA

## PREAMPLIFIERS

Superphon CD Maxx	\$399	✓	Line-level preamp, no phono stage. Smooth, sweet sound flatters CD players. Line-amp bypass. Funky styling.	NA
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## PREAMPLIFIERS (cont.)

Product	Price	Best Buy	Comments	Review
Superphon Revelation II	\$749	✓✓	Seductive blend of detail, imaging, and tonal warmth. Minimal facilities. Space Case no longer offered. Superb value.	#9
Audible Illusions Modulus 2D	\$949	✓✓	Timbral accuracy, stunning dynamics, and remarkable imaging. Incredibly well-built for the price.	#12
B&K Sonata MC-101	\$949	✓	Traditional B&K smoothness with added detail and clarity. Extensive facilities offer tremendous flexibility.	#11
Quicksilver Preamplifier	\$1495	✓	Smooth, airy sound that betters preamps costing thousands more. Superb build quality. Great value.	NA

## POWER AMPLIFIERS

B&K ST-140	\$498	✓✓	The classic budget power amplifier. Smoothness a hallmark. Mates well with many preamps. Superb value.	#5
Belles 150	\$649	✓	Remarkable quickness and clarity. Very revealing, shows up brightness elsewhere in system. Excellent buy.	#11
Forté Model 3	\$1100		Deep, tight bass. Excellent power and dynamics. Tonal balance a bit laid back. Beautifully built.	#11
Kinergetics KBA-75	\$1495	✓	Smooth, full-bodied sound from class A amp. Excellent bass punch. Great build quality. Fine value.	NA
Belles 450	\$1595	✓	Extremely powerful stereo amplifier. Outstanding sense of detail and finesse for a big amp. Excellent bass.	#12
B & K Sonata M-200	\$1796	✓✓	Mono solid-state amps with amazing current capability. Brilliant blend of smoothness and detailing. Bargain.	#12
Naim 62/140	\$2090		Pre/power combo with superb musicality. Smooth, great timing. 72/HiCap/250 hot set-up. Pricely.	#9

## LOUDSPEAKERS

Boston Acoustics A40	\$170	✓	The least expensive speaker available with pretensions to high fidelity. Crisp bass. Solid value.	NA
Celestion 3	\$250	✓	Best budget minispeaker around. Quick, detailed, dynamic. Superb treble for the price. Stunning value.	#11

## LOUDSPEAKERS (cont.)

Product	Price	Best Buy	Comments	Review
JPW AP2	\$399		Lively, forward balance. Exceptional detail. Bass quick and tight, if a bit light. Superb construction and finish.	#4
Rogers LS2a	\$399	✓	Smooth, full-bodied sound. Outstanding timbral balance, good detail. Bass lacks some definition.	#11
Spica TC-50	\$550	✓✓	Amazing imaging and detail. Must use proper height stands for best results. Superb value.	#4
ProAc Super Tablette	\$700	✓	Exceptional clarity and presence, but can sound a bit bright in unsympathetic systems.	#3
Thiel CS1.2	\$1090	✓✓	Punchy, dynamic sound with tremendous imaging. Stunning build quality. One of the best values in audio.	#10
Vandersteen 2Ci	\$1195	✓	Big, smooth sound with outstanding bass power. Latest version said to offer greater clarity and detail. Superb value.	NA
Rega ELA	\$1250	✓	Small, floor-standing transmission line speaker. Amazingly fast, open. Tremendous imaging. Excellent buy.	#13
ProAc Studio 1	\$1250	✓✓	Speed and clarity obvious assets. Sounds bright if not matched to system. Punchy, exciting performer.	#9
Spica Angelus	\$1275	✓	Improves on the TC-50's strengths. Bass tight but a bit lightweight. Controversial appearance.	#9
Rogers Studio 1a	\$1399	✓	Warm, full-bodied sound. Surprising bass power for its size. Great long-term listenability.	#9
Chapman T-7	\$1495	✓	True full-range speaker st a bargain price. Great imaging for a big system. Open, detailed. Deep bass.	#13
Tannoy DC3000	\$1595		Obscenely sensitive model. Amazing dynamic impact. SPLs to make your ears bleed. Imaging, detail not strong points.	#13
Thiel CS3.5	\$2450		Exceptional combination of bass power, imaging, and clarity. Tonally thin? Beautifully built. Good value.	#10
ProAc Response 2	\$2800		Stunning clarity and quickness. One of the best dynamic speakers available. Utterly true to the music.	#12
Naim SBL	\$3130		Tremendous bass power and drive. Near-wall siting saves space, but impairs depth. Innovative. Pricey.	#10

## DIGITAL AUDIO

Product	Price	Best Buy	Comments	Review
Rotel RCD-855	\$350		Considered by some to be the king among budget CD players. Sixteen bit, 4X oversampling. With remote.	NA
Sony 508ESD	\$550		Exceptionally warm and smooth sound, solid bass performance. Lacks some detail. Fine build quality.	#12
CAL Icon	\$695	✓	Marvelous combination of warmth, detail, and dynamics. Impressive imaging. Outstanding build quality.	#12
Denon DCD-1520	\$750		Nice detailing and airiness, if tonally a tad thin. Solid bass performance. Improves on earlier 1500 II.	#12
Arcam Delta Black Box	\$650	✓	External digital-to-analog converter. Exceptionally cost-effective upgrade for CD players with digital outputs.	#10
Kinergetics KCD-20B	\$1195		Smooth, detailed player with great bass. Excellent imaging. Can sound better driving power amp direct.	#13
CAL Tercet III	\$1295		Warm, analog-like midrange. No CD stridency or harshness. Extensive control functions. Well-built.	#13

## MISCELLANEOUS

Audioquest F-14	\$.69/ft.	✓	Solid-core speaker cable at incredible price. Smooth, detailed. Bass can get heavy on long runs.	NA
Music Metre Interconnect	\$95/1m	✓	Twisted-pair solid core, with Teflon dielectric. Offers detail and tonal warmth. Balanced, shielded.	NA
Linn K-20 Cable	\$7.50/meter	✓	Spaced-conductor stranded design. Good compatibility with wide variety of systems. Solid value.	NA
Sound Organisation Speaker Stands	\$85	✓	Least expensive high-quality stand around. Spikes top and bottom. Nicely built for the price.	NA
Target HJ Series Speaker Stands	\$200		All-welded steel stands. Spikes on top and bottom. Hollow pillars can be filled with lead shot or sand.	NA
Sony Pro Walkman Cassette Recorder	\$400	✓✓	Outperforms many home decks costing far more. Portable design allows easy live recording, too.	NA
Nakamichi Dragon	\$2195		Tremendously sophisticated (and expensive) home cassette deck. Auto reverse, auto azimuth adjust.	NA



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# More Music On Modest Money

by David Cooper

Dear Friends,

Continuing from our last visit, we turn to the second group of composers that followed paths first blazed by Beethoven. As noted last time, Beethoven's works inspired two divergent directions of composition. The great "trail blazer" followed conventional routes laid down by Haydn and Mozart, while expanding on their Classical forms. He also pushed well beyond the traditional boundaries set by these strict forms to explore new musical frontiers. In his quest, Beethoven had taken inspiration from dawning Romanticism in art and literature, while giving expression to his own passions, longings, and struggles. Expanding musical forms to express programmatic and emotional ends, he experimented with the traditional Sonata Form that had evolved from a basic structure in the Baroque Period to the "required" form of Haydn and Mozart. In this Beethoven was a rebel. Also remember that Beethoven was the first composer to make music pay a living wage without having to wear the servant's livery of some employer. Only Haydn before him had achieved a degree of financial independence, and that only towards the end of his life.

Last time we concentrated on Beethoven and his Conservative successors. Now we turn to his self-avowed disciples, "the Radicals", who, like Beethoven, felt limited by the "trade conventions" of the professional "write on demand" musician. Inspiration was liberally drawn from Classical and Romantic literature and art. No compositional rules were sacrosanct. To under-

stand the impact of the Radicals in their time, we can best compare them to our own rock stars of the past four decades.

For the Radicals (also called the "Early Romantics") ego was paramount, as they strove for intensified personal statements. Their ideal was life and art for art's sake. Content was more important than Classical form. Music was to be allied with all art and literature. Their goals in life, art, and music included ever-expanding horizons, a fascination with the supernatural, constant experimentation with new forms, colors and textures for the achievement of a rich, sensuous, colorful sound, and a fully romanticized expression of all states of mind, feeling, and experience.

Their personal and musical flamboyance generated cult followings amongst the young, and caused a thorough-going aversion amongst the conservative establishment. It is no exaggeration to say that the Radicals were the spiritual and musical progenitors of contemporary Acid, Heavy Metal, and Punk rock stars. In dress, grooming, life style, and art they gave vent to any display calculated to shock the conventions of a staid world. Some of them were permissive to a point bordering on promiscuity. Their followers responded by acting like modern "groupies" and rebels, in attending their concerts and in aping their behavior. Those radical principles both proclaimed and betrayed by the now-defeated Napoleon were common currency amongst the followers of the Early Romantics. Like today's musical radicals, the Early Romantics mastered not only a new music

but also the art of self-promotion.

The primary target for their musical rebellion was the strict Sonata Form of the Classicists. The clearest explanation of this form I have found is in Aaron Copland's wonderful little book, *What to Listen for in Music*:

*The reader should be warned against one...possible confusion regarding the use of the term "sonata form". It is applied...to two different things. In the first place, we speak of sonata form when we mean an entire work consisting of three or four movements. On the other hand, we also speak of sonata form when we refer to a specific type of structure in music generally found in the first, and often also the last, movement of an entire sonata. Therefore, you must keep in mind two things: (1) the sonata as a whole and (2) the sonata form proper, sometimes referred to as "sonata-allegro", or first-movement form. The sonata allegro referring to the fact that almost all first movements of sonatas are in allegro (or fast) tempo.*

*...Three or four separate movements comprise the sonata as a whole. There are examples of two-movement and, more recently, one-movement sonatas, but these are exceptional. The most obvious distinction between the movements is one of tempo: in the three-movement species, it is fast-slow-fast; and in the four-movement sonata, it is usually fast-slow-moderately fast-very fast.*

*... the first movement of any sonata...is always in sonata-allegro form.*

*...The second movement is usually the slow movement...It may be written in one of several different molds.*

*...The third movement is usually a minuet or scherzo...In either case, it is the A-B-A, three-part form. ...Sometimes the second and third movements are interchangeable — instead of finding the slow movement second and the scherzo third, the scherzo may be second and the slow movement third.*

*The fourth movement, or finale, as it is often called, is almost always either in extended rondo form or in sonata-allegro form. (pages 178-182)*

The Sonata Form was used as a rule, not only for sonatas, but also for concertos, symphonies, and just about every other type of composition, until Beethoven began experimenting. In fact, the first true tone poem, a piece of program music, may

be said to be his **Symphony No. 6 in F major, opus 68 (The Pastoral)**.

I am sorry if the long quotation seems pedantic — but that is just the point! The whole Sonata Form struck the Radicals as pedantic. They bridled at the idea of being controlled by it. Haydn, Mozart, and Beethoven had used the Sonata Form so brilliantly, that it seemed there was nothing more of real worth that could be expressed using it! Their rebellion gave rise to liberated forms for both solo instrumental and symphonic works. Music was increasingly written in the form of extravagant tone poems. This is apparent in the works of Chopin, Berlioz, Liszt, Paganini, Rossini, and Schumann. And it is just at this point that I had better “confess” to my own bias as a “Classicist”. I am not too fond of the Early Romantics. In trying to push and redefine the limits of musical form for the sake of self-expression, I feel these composers became self-indulgent to the point of narcissism. It is of no consequence to you if I find some of these Radicals prone to excess, bad taste, and overt commercialism. What **does** count is the music, and **your** enjoyment of it. Further, without the achievements of the Early Romantics,

music as we know it would not exist. Just beware of my bias and form your own opinions.

It is also essential to note that, with the glaring exception of Berlioz (who never learned to play a useful instrument correctly and was entirely self-taught), the other Early Romantics had all studied and mastered the old forms of composition and performance. Like the best of today’s progressive and rock musicians, the Radicals had learned the rules which they set about to break. Chopin haunted the book stalls of Paris, looking for the music of J.S. Bach. Along with Bach, the music of Mozart, Haydn, and Beethoven was avidly studied. Excepting Berlioz, the rule seems to have been, “Before we can break the rules, we first must know the rules!”

If you pursue this music you will be acquiring some very dramatic, indeed dazzling, music which will give you hours of pleasure. This music is also capable of rigorously testing the “musicality” of audio components. Due to space limitations, I am limiting my composer review to the symphonic music of Berlioz and Liszt. The others are worthy of your attention, but

these two are arguably the symphonic giants of their period. I shall return to Chopin and Schumann at some time in the future, in an article devoted to the giants of the keyboard.

Despite my caveats, let us begin with that arch “rule-breaker” who didn’t even know the rules: Berlioz. One of the all-time Early Romantic “show-stoppers” is his **Symphonic Fantastique, or “Episode in the Life of an Artist”, opus 14**. This work has long been credited as being formative for all that followed (a claim I do not give unreserved credence). I have mixed emotions about it, but I think you will enjoy it greatly. This is music drama without words. It demonstrates the strengths and weaknesses of conductors, ensembles, and audio systems alike. There is much here to delight, impress, and move the listener — [through the first listening or so (after four “goes” I am just about ready to scream!)].

Berlioz was both a very capable (if unorthodox) conductor and composer, who quickly and ably shifted musical moods with high drama. His orchestrations, often complex and diverse, will give excitement and joy. Call it “sour grapes”, but I find this

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# LICORICE PIZZAS AND CHROME DOUGHNUTS

work to be showy and shallow, eminently diverting and self-aggrandizing. But, it is the work of one who had a very hard time getting initial acceptance. In my harsh moments, I categorize this work under Duke Ellington's heading of "Bad Music", something written just to turn a buck! In more honest moments, I admit that this is a landmark composition of depth and genius.

**Symphonie Fantastique, opus 14** has two major inspirations: the literary, and the loosely autobiographical. The literary influences are too numerous to cite beyond De Quincy's *Confessions of an English Opium Eater* and Goethe's *Faust*. Though never a drug addict, Berlioz used these sources in the narrative form of his program to describe the result of his infatuation with Irish Shakespearean actress Harriet Smithson. Claiming to be on the brink of insanity in his passion, he besieged her with unanswered letters. He finally worked out his passion in this composition of 1830. Berlioz provides his own program:

*A young musician of morbid sensibility and*

*ardent imagination is in love, and has poisoned himself with opium in a fit of desperation. Not having taken a lethal dose, he falls into a long sleep during which he has the strangest dreams, in which his feelings, sentiments and memories are translated into musical ideas and figures. The beloved woman herself has become a melody that he finds and hears everywhere as an idee fixe.*

*...First Movement: Reveries, Passions...Second Movement: A Ball...Third Movement: In the Fields...Fourth Movement: March to the Scaffold — He dreams that he has killed his beloved, that he is condemned and taken to the place of execution. ...Fifth Movement: Dream of a Witches' Sabbath...SHE has come...roars of joy greet her arrival. She joins in the devilish orgies. Funeral bells, parody of the Dies Irae, Round dance of the Witches. The round dance and the Dies Irae are heard together. (Liner Notes)*

The major novelty is the repetition of Berlioz's "Fixed Idea" in each movement. Beyond this feature, the true originality of the work is in its musical content. Berlioz's astounding ability in expressing many shifting moods, high drama achieved

through harmonies, varying rhythms and phrase structures — all are combined with extreme precision. The power of the work is conveyed irrefutably. The faults of the work are in its overstatement. It is, in the words of one commentator, "an orgy of sound". I offer the following records for your consideration:

**Jonel Perlea, Bamberg Symphony** on 1957 Vox STPL 511.090. This budget recording has surprisingly good fidelity. Tempos are taken a trifle slower than is currently popular, allowing for an increased display of the artistry of this too-often ignored orchestra. This is a satisfying performance of luminescent tone color and fine detailing which allow communion with the music. Do ignore the labels on the disc. The printed record side numbers are correct, and the music is in the correct order, but the movements, as printed, are on the wrong label sides! Maybe this accounts for the budget price.

**Otto Klemperer, The Philharmonia Orchestra** on 1964 Angel 36196. Again, slower tempos than are the current mode allow for superb orchestral expression and

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high drama. Each orchestra section displays virtuosity. The winds are playful. Strings are sweeping and yet precise. The fine brass section is expressively thunderous. Early Angel/Capitol records have extreme channel separation which may be distracting — or it may give more of a sense of an excellent soundstage. This is a matter of taste.

**Colin Davis, London Symphony Orchestra** on 1966 **Philips 835188AY**. This recording is more present and forward. Slightly faster tempos heighten the drama along with the pace. This is a stunning record that supports the occasional contention made for the superiority of British brass technique and tonal quality. Nothing is lacking as to quality of performance, production, or recording. This is my first choice for a sense of truly live sound, brilliantly performed.

The fourth offering is a negative report on a great performance. **Zubin Mehta, New York Philharmonic** on 1980 **London/Decca LDR 10013 Digital**. The failings of digital recordings are revealed here in glaring detail. A great orchestra's, and deservedly respected conductor's, worthy

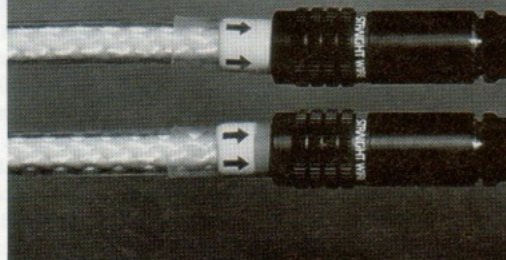
performance becomes a caricature of real music. A precise explanation of what is wrong with this recording appears in *Hi-Fi Heretic*, Issue #12, on page 38. Read Kent's excellent explanation of the effect when an adequate digital-to-analogue converter is lacking in a CD player. The same applies to the digitally-recorded LP: "The beginning and ending of every note produced on a non-linear CD player (*add, "or a digital LP"*) is bathed in distortion." Not one instrument sounds as it will even on the earliest monaural "High Fidelity" LP. This is a damned shame, given the energy of this fast-tempoed, high energy performance! I would just as soon listen to an acoustically-recorded set of 78s of this work. Pizzicatos sound like fingernails quickly scratched on a blackboard, and flutes sound like anemic, synthesized birds. We won't mention what digital does to massed strings, brass or tympani. If you don't believe me, take a digitally-recorded cassette of this work and a Sony Walkman to a live concert and compare — then we can talk about it!

If you think Hollywood invented the sequel, think again! Remember my comment on the Radicals' talents at self-promotion.

Well, Hector Berlioz did not "get his girl" with opus 14, so in 1832 he wrote the sequel: **Lelio, or "the Return to Life", opus 14b**. Not wanting "his lady" to miss the point, Berlioz wanted to have the sequel performed with **Symphonic Fantastique, opus 14**. If you do not enjoy vocal and choral music, skip this one — if you do, "Go for it!", as the saying goes. Though not an audio "show-stopper" like Opus 14, **Lelio, opus 14b** is a dramatic work. Requiring a narrator, three soloists, chorus, solo piano and orchestra, it portrays the Artist's "Morning After". Yes, it is absurdly self-indulgent; it is also real music. Berlioz used melodramatic monologues, beautiful arias, swelling choruses, and fairly restrained orchestrations for his purpose. And it must have worked. In 1833, much to his not-too-much-later regret, he "got the girl" and married her. [We should be glad we don't get everything (or one) we think we can't live without!] Here are the recordings, of which I only have the first (which is excellent):

**Jean Martinon, Orchestra National, Chorus of the ORIF, Nicolai Gedda tenor, Charles Burles - tenor, Jean van Gorp - baritone, Jean Topard - narrator**

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**Colin Davis, the London Symphony Orchestra** with an excellent cast on **Philips 9500 944**.

**Leibowitz and the Paris Symphony** on **Lyricord 771**.

Opuses 14 and 14b, meant to be played together, prove beyond doubt that Berlioz seldom kept personal affairs of this sort to himself. He was a genuine revolutionary and one of the more self-serving composers, who continues to capture our attention. A contemporary said of him, "He believes neither in God nor Bach."

I strongly encourage you to seek out his tribute to Lord Byron, **Harold in Italy, opus 16**. Look for **Colin Davis, the Philharmonia Orchestra, Yehudi Menuhin - viola** on 1963 EMI/Angel S-36123 and **Colin Davis, London Symphony Orchestra, Nobuko Imai - viola** on 1975 Philips 9500 026. Both recordings are satisfying, brilliant performances, worthy of your collection. Both violists are superb, Menuhin perhaps caressing a bit more from his instrument, but not much more.

Two other albums are more than worthy of your consideration, particularly if your longing for Berlioz's pyrotechnics has yet to be quenched:

**The Roman Carnival Overture, opus 9** and **Excerpts from Romeo and Juliet, Dramatic Symphony, opus 7, Leonard Bernstein, New York Philharmonic, on Columbia Masterworks MS 6170**. If you buy no other Berlioz album, make this one your choice. The opus 17 of 1839, according to the liner notes, is of early inspiration:

*As early as 1821, when he was seventeen, Berlioz conceived the idea of writing music for Romeo and Juliet. Six years later, after seeing the play performed in English for the first time and understanding not a word of the language, he wrote, "The lightning flash of Shakespeare's genius revealed the whole heaven of art to me, illuminating its remotest depths in a single flash. I recognized the meaning of real grandeur, real beauty, and real truth."*

Despite immodest braggadocio, he finally got to his inspiration in 1839, with leisure to pursue it, thanks to Paganini, who after hearing **Harold in Italy**, sent a gift of

20,000 Francs along with a note, including these words: "My dear friend—Beethoven is dead, and Berlioz alone can revive him!" (Liner Notes). In 1844 he wrote the accompanying Opus 9, which is a superb, delightful, bona fide "show-stopper". When in doubt with the Early Romantics, always buy Bernstein with the New York Philharmonic for a real romp.

The last Berlioz offering displays a bit of his theater work and his political revolutionary side. **Prelude to "Les Troyens a Carthage" [1863], Symphonie Funebre et Triomphale, opus 15 [1840], and Marche Funebre, opus 18, No. 3, pour la derniere scene d'Hamlet [1848], Colin Davis, John Alldis Choir, London Symphony Orchestra on Philips SAL3788** is worth checking out for a genuine series of well-performed, tragic expressions in music. Colin Davis and Philips are, as usual, superb.

\*\*\*\*\*

Franz Liszt, the great Hungarian Early Romantic, was the epitome of the radicals of his day. Look back to this article's introduction. All of the generalizations about the Radicals apply directly to Liszt. There almost seem to have been two Franz Liszts. He was the consummate showman: flashy, self-promoting, an exhibitionist who delighted in dramatic and melodramatic effect, whether in his music (with his immense solo technique, grandiose virtuosity, sonorous tonalities, and explosive bombast), or in his life (trading on his good looks, magnetism, power, and sensuality). He was vain, arrogant, willful, capricious, and promiscuous, in need of constant attention and adulation. His affair with the famous woman author, George Sand, was notorious. The "other" Liszt was generous, warm-hearted, and considerate of those he liked. His closest friends were Alexander Dumas, pere, Victor Hugo, Niccolò Paganini, and Gioachino Rossini. He could be truly humble in the presence of a genius like Wagner. He venerated Beethoven, and built and developed his style on Chopin. As to religion, he affected fervor, with a long-delayed intention for commitment which, when finally made, did not alter his sexual escapades to any notable extent. (And rock stars think they invented the art of being delightfully outrageous! Not so.)

In his music, Liszt went for effects that would show off his remarkable virtuosity as a composer, solo pianist, and conductor.

A grandiloquent virtuoso, he had more than a tendency towards brilliance and bombast. After Berlioz, he was the foremost composer of program music. Drawing heavily on literature and art, he also gave free voice to ardent nationalism. Liszt succeeded in combining the tender, the grandiose, and the momentous in his works. Liszt is an example of one who had learned all the rules before he set out to break them.

Both because of the relative brevity and popularity of his music, you will be hard-pressed to avoid duplications. Because of this, I am simply listing various albums worth considering:

**Les Preludes, Rhapsodie Espagnole, Hungarian Rhapsodies Nos. 2 and 9, Gyula Nemeth, Hungarian State Orchestra on Qualiton LPX 11341**. This early stereo album from Hungary contains a fine set of performances by an orchestra paying full tribute to the parent of its nation's music. The fidelity of this thick, old record is surprisingly good, with a natural sense of presence. It is a beautifully produced recording.

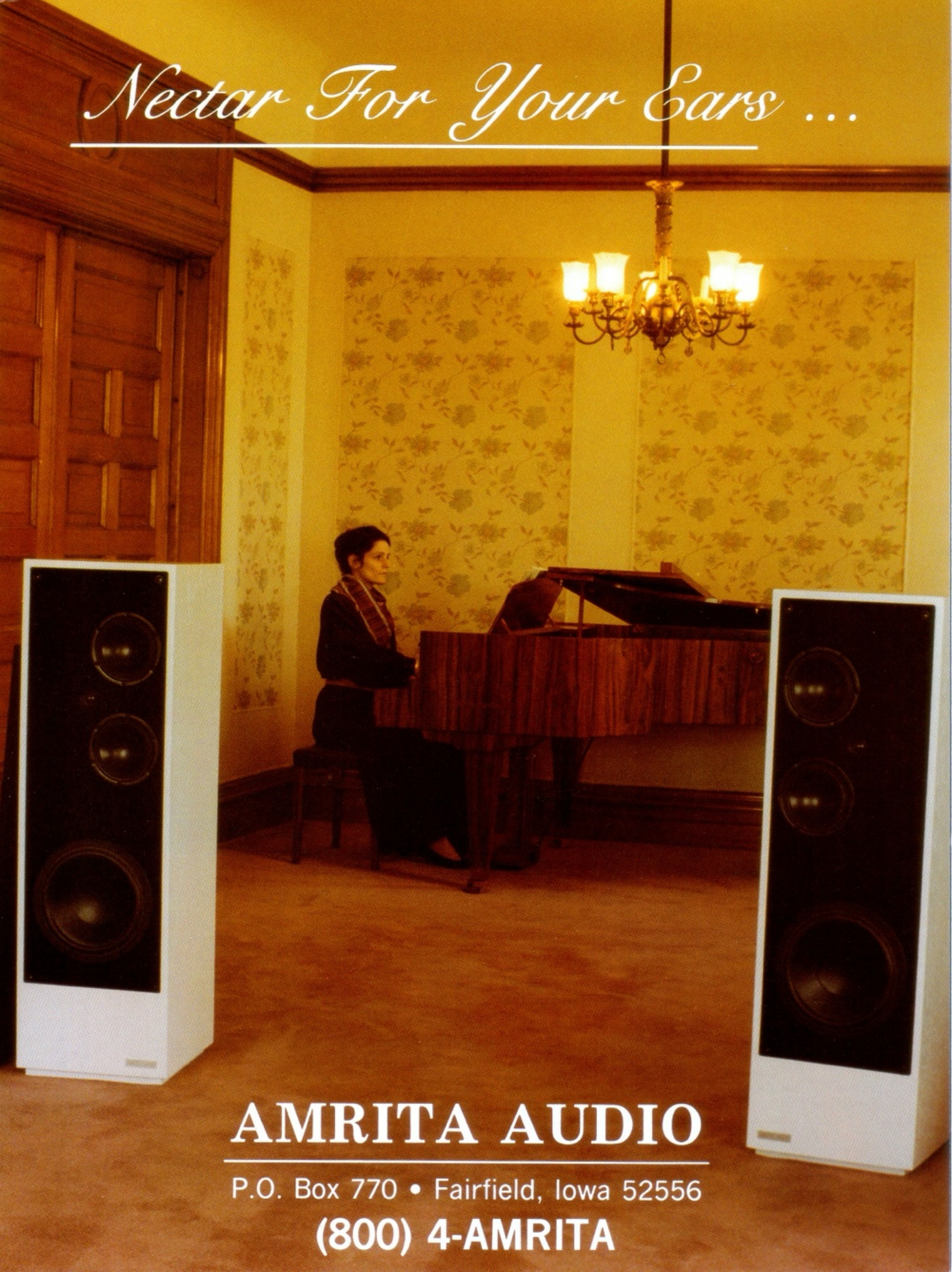
**The Exciting Debut of Andre Watts playing Liszt: Piano Concerto No. 1 with Leonard Bernstein, New York Philharmonic / Les Preludes, on 1963 Columbia MS 6458**. Once again, Leonard Bernstein and his orchestra turn out two stellar performances on a first class, vintage early stereo recording. The young Watts is dramatic, expressive, and in full command of both his instrument and the work. Don't miss this one!

**Totentanz, Malediction, Hungarian Fantasy, Fantasia on Beethoven's Ruins of Athens, Michel Beroff - pianist, Leipzig Gewandhaus Orchestra, Kurt Masur on 1980 Angel SZ-37761**. This collection of Liszt "war horses" will almost certainly delight your ears, keep your toes tapping, and leave you satisfied. Fine performances and recording techniques await you.

**Mazeppa, Hungarian Fantasy, Hungarian Rhapsodies Nos. 4 and 5, Shura Cherkassky - pianist, Berlin Philharmonic, Herbert von Karajan on Deutsche Grammophon 1386292**. A great Russian pianist joins von Karajan with the right fervor, flamboyance, style and precision to make this an absolutely great performance. Liszt's nationalism thunders through with excitement and power.

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Piano Concertos Nos. 1 and 2, Lazar Berman - pianist, Vienna Symphony Orchestra, Carlo Maria Giulini on 1976 Deutsche Grammophon 2530 770. Berman's piano interpretations show the depth of his understanding, his feeling, and his years of experience as a performer of romantic works. His rapport with Giulini and the orchestra is obvious on this marvelous recording. Once again, I suggest that Carlo Maria Giulini is one of the very finest conductors alive today. The recording has breadth and depth. I do not see how anyone can fail to love this album.

Franz Liszt: *A Faust Symphony*; and Arrigo Boito: *Mefistofele - Prologo in cielo*: Kenneth Riegel - tenor, Tanglewood Festival Chorus, Boston Symphony Orchestra (on Liszt); and Nicolai Ghiaurov - bass, Chorus of the Vienna State Opera, Vienna Philharmonic (on Boito), Leonard Bernstein, conducting both works on 1977 Deutsche Grammophon 2LP 2707 100. Liszt's *Faust*

*Symphony* is his largest work and his only major symphony. This work possesses great inspiration, substance, and passion in a form of large dimensions. This is music of tremendous expression, scope, and power. The *Faust Symphony* contains the more mature musical expression of a fine composer who finally decided "to get serious". Liszt got beyond his more commercial side to give voice to a genuine inspiration. This work is a permanent part of the literature of genuinely Good Music. This performance by Bernstein and the Boston Symphony is an absolute triumph. I listen to this work more than many other Liszt recordings in my collection. The Boito work on Side 4 is very good in its way, providing a marked, Late Romantic, contrast to the Liszt work. Both works draw their inspiration from Goethe's *Faust*. I recommend against listening to the Boito as a "sequel" to the Liszt. Each work stands on its own, and each is stylistically very different.

Before closing, I offer you my list of references for this article, beyond liner notes, in case you want to read further:

Aaron Copland, *What to Listen for in Music*, McGraw-Hill Book Company, Inc.: New York, 1939; Donald Jay Grout, *A History of Western Music*, Third Edition, with Claude V. Palisca, Yale University. W.W. Norton & Co., Inc.: New York, 1980. Library of Congress #ML160.G87 1980; Harold C. Schonberg, *The Lives of the Great Composers*, W.W. Norton & Co., Inc.: New York, 1970. Library of Congress #73-116112.

Until next time, good listening to you! ■

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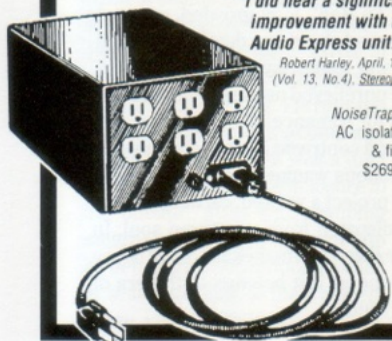
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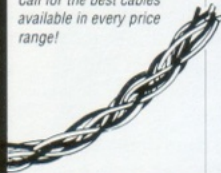
Robert Harley, April, 1990  
(Vol. 13, No. 4), *Stereophile*

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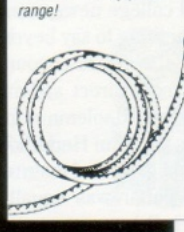
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# Sid Vicious Died For Your Sins: The History of Punk Rock (Part One)

by Rob Doorack

"Punk Rock?!", cries the Gentle Audio-ophile, recoiling in horror. "Wasn't that just funny haircuts, safety pins through the cheek, and horrid caterwauling by musical illiterates?"

Well, yes it was, and no it wasn't, as we shall see.

The term "punk rock" was first used to describe the raw music made by the thousands of American garage bands in the mid-Sixties. At that time, AM radio playlists were accessible to a degree that seems almost inconceivable today. Stations would play records by popular local bands, and a group could reign over the charts in their hometown yet be completely unknown outside the region. Much of this music was not as polished as that of the Beatles or the Rolling Stones, and the lyrics were often "merely" about cars, girls, and school, but it had spirit and it set teens a-hopping.

Eventually AM tightened up and dropped the locals, and the new free-form FM radio was more interested in groups whose national record companies could afford commercials to promote them. This roughly coincided with the appearance of music critics writing about rock and roll in underground and college newspapers. In order to have something to say beyond "it has a good beat", the critics encouraged movement away from direct statements and simplicity and toward solemn respectability. The Beatles and Jimi Hendrix were geniuses who could grow and mature; not everyone with a guitar was equally capable. Rock and roll began to turn into

Rock: it was no longer music to dance to on Saturday night, it was serious art that was best appreciated sitting down (perhaps while doing bong hits and staring at a poster beneath a black light). In the early Seventies the phrase "punk rock" appeared; the dictionary defines a punk as a hoodlum or ruffian, and the sneering critic who dreamed up this pejorative clearly thought that hot rockin' music was somehow shameful.

There were, of course, some who dissented from the Party line. In 1967 and '68, the Velvet Underground put out two albums of tough music with dark, street-smart lyrics. These songs of sexual deviation and drug addiction must have terrified people like Donovan ("Mellow Yellow" and "Heroin" are contemporaries!). Although their music cooled off after that and the band fell apart, the Velvets would be an important influence later. The Detroit-based MC5, the official band of the White Panther Party, believed that their hard rock would inspire the proletariat to raise the red flag of revolution. While waiting for the insurrection, they occupied themselves fighting with their record company over the prominent use of a certain profanity in the title track from their first record, *Kick Out The Jams* (1969). For the next album the MC5 throttled back on the agitprop and got a grip on their tendency to run on a little too long, and as a result *Back in the USA* was a great record of short, fast songs that sounded like a head-on collision between Chuck Berry and Ted Nugent. They hadn't deserted their ideology, but it was expressed through ironic delivery and

subjects rather than sloganeering rant.

In 1967, Jim Osterberg renamed himself "Iggy Pop" and formed the Stooges. Their debut album two years later, *The Stooges*, almost redefined crudity. The next record, *Fun House*, showed that they had become slightly better players; the music was more focused and forceful, but no closer to the mainstream. After a three year interruption, the group returned in 1973 as "Iggy and the Stooges" with two new members and a masterpiece. The album *Raw Power* could melt the insulation off speaker cables. In instant classics like "Search and Destroy", "Death Trip", and "Your Pretty Face Is Going To Hell", Iggy growled, moaned, and screamed about sex, death, and brutality over and under layers of roaring guitars. The unrelieved nastiness admitted no potential for romance or redemption, nor did it sound contrived in any way: this was not a pompous wanker like Jim Morrison trying to project a wicked, carnal persona, it was a dispatch from a tortured soul. In 1990 *Raw Power* still makes almost all heavy metal sound as if it belongs to the era of Edison cylinders.

Each of these bands had an impact on the New York Dolls, who formed in 1971. They took '60s garage band punk and girl-group pop, '50s R&B, and stirred in the self-conscious rawness of the MC5 and the Stones and their own sense of humor. This mixture was propelled by the guitar of Johnny Thunders, one of the all-time kings of noise, who used Keith Richards' riff-based style as a starting point and made it faster, louder, and more incoherent. At a time when most

bands' idea of stage wear was flannel shirts, the Dolls were the heirs to the Little Richard tradition of over-the-top outrageousness, and their flamboyant costumes and appearance (including makeup) were guaranteed to offend. They quickly became cult heroes in the after-hours underworld of Manhattan, and somehow got a contract from Mercury Records. *New York Dolls*, their 1973 debut, was a wonderful record, not as unsettling and intense as *Raw Power*, but a lot more fun. Highlights included "Personality Crisis" and "Trash". The Dolls' second album, *In Too Much Too Soon*, was almost as good. The appalled public didn't want anything to do with the Dolls, sales were awful, and the band was gone by mid-1975.

Big-time Rock was, at this point, becoming both conservative and self-indulgent, and was increasingly disconnected from its consumers. Rock had developed into a lucrative business, and the more popular groups were living in a luxurious world of limousines, fashion models, and private jets (the Rolling Stones had a Luxemburgian prince managing their wealth), conditions unlikely to inspire the impertinent attitude that had always fueled the music. The musicians didn't miss the rebelliousness; virtuosity had become more important to them than spontaneity, skill more prized than excitement. The worst examples of this were the cold-blooded technocrats performing the so-called "progressive rock". Bands like Yes and Emerson, Lake, and Palmer seemed to think that their pretentious pseudo-classical claptrap was delivering rock and roll from its debased origins. To them, any music that could be played by untrained musicians was slightly distasteful and, even worse, not serious enough.

Rock could still provide escapist pleasures for many people, but for an unsatisfied minority the lyrics were irrelevant to the world they moved through, and the music was elitist and lifeless. Rock spoke at them, not for them or to them. It was time for a change.

The storm that would revivify rock and roll was set in motion at CBGB, a former Hells' Angels bar located beneath a wino flophouse on New York's Bowery<sup>1</sup>. In 1974 the seedy dive started to present poetry readings and country music on the small stage in the back. The first rock and roll band to play there was a group called Television; despite bass player Richard Hell's ripped T shirts and spiky hair they con-

vinced the club's adventurous owner that they were a bluegrass band. They drew a large enough audience that they were asked to return, and CBGB began to book bands too weird or unknown to get hired anywhere else.

"Weird" certainly described the Ramones, four skinny New York Dolls fans from the blue collar borough of Queens who arrived at CBGB carrying their guitars in shopping bags. No one had ever heard anything like them: the Ramones played faster than virtually every other band in history, they appeared to know less than a half-dozen chords, and they ripped through fifteen to twenty songs in a typical seventeen minute performance. The lyrics to Ramones songs like "Blitzkrieg Bop" and "Beat on the Brat" seemed to raise stupidity to a virtue. Reaction to the Ramones was extreme; you either loved them or you detested them.

The Ramones' detractors completely missed the inspired concept behind the band's music. It was rock and roll minimalism taken as far as it could be, rendering the music down to short explosions of rhythm guitar. While Progressive Rock bands were writing 25 minute suites, the Ramones were returning to the concise, simple structure that had always distinguished rock and roll. They were really trying to create the same sort of catchy pop songs they had grown up with, music like the early Beatles and the Beach Boys, only faster. The Ramones also understood that rock and roll was not just music but was part of a distinctly American trash, low-brow culture that included such things as hot rods, monster movies, and *Mad* magazine. They knew that a White Castle hamburger had more to do with rock and roll than an entire warehouse full of Rush albums. The deadpan humor of their songs reflected this; the Ramones' lyrics were dumb by design. Their music was not intended to convey great meaning, it was about having fun again.

By the spring of 1975, CBGB was presenting rock and roll consistently, but it was happening in obscurity. The first breakthrough came when Patti Smith played the club for seven weeks straight. Smith, a semi-famous arty playwright, poet, and topless model, had added guitar accompaniment (by Lenny Kaye, curator of the essential '60s punk compilation album *Nuggets*) to her readings the previous year, and eventually added an entire band. Her local celebrity filled the place and Smith was signed to Arista Records. That summer the

club presented a two week "CBGB Rock Festival" with 30 bands, among them Television, the Ramones, a group of polite art school graduates calling themselves Talking Heads, and Blondie, a band fooling around with the sound of '60s girl-groups like the Shirelles. The New York press took notice, and suddenly the new sound was getting attention. Sire Records signed up the Ramones, a move that was greeted with disbelief by the industry.

Meanwhile, there was something stirring in London. England was in the grip of a crushing recession, and the children of the working class were facing a bleak future of meager government handouts, monotony, and social stagnation. In 1974 former schoolmates Paul Cook, an apprentice electrician, and Steve Jones, a professional car thief, saw a New York Dolls concert and decided to start a band. Jones would sing, Cook took up drums, Wally Nightingale, another old school chum, played guitar, and they enlisted acquaintance Glen Matlock to play bass. Matlock worked as a clerk at Sex, a bizarre King's Road boutique and hang-out. The store sold clothing to members of England's reactionary roll and roll subcultures (Teddy Boys, Rockers), fetish gear to perverts, and stage costumes to glitter bands. Malcolm McLaren, Sex's owner, took over the management of the rapidly fading Dolls in early '75; he had the ludicrous idea of making them a "communist band", and for a few sad shows the Dolls performed in front of a giant Soviet flag. Around this time McLaren saw Television's Richard Hell in New York. Hell wore torn shirts held together with safety pins and his hair stuck up in wild fly-away spikes, the result of an intentionally bad self-inflicted haircut. It was actually a carefully considered anti-Rock Star look, and McLaren filed it away for future expropriation.

McLaren was known to be looking for another band, so Matlock got his boss to come hear the "Swankers" play a set of terrible Small Faces and Who covers. McLaren advised them to start writing their own songs, Wally Nightingale was kicked out, and Jones switched to guitar. In the summer of '75, an odd, obnoxious character with green hair and a Pink Floyd T-shirt with "I hate" scrawled across it began skulking around Sex and drew McLaren's interest. McLaren asked him if he could sing and arranged for him to meet the band. His audition consisted of "singing" along with records on the shop's jukebox; mostly he trashed the lyrics and insulted

# LICORICE PIZZAS AND CHROME DOUGHNUTS

everyone in sight. He appeared to be half-crazed, he was hilarious, and he was exactly what they wanted. Johnny Rotten joined the group, and the Sex Pistols were born.

The first performance by the new band took place in November, opening for a rockabilly band at St. Martin's College. They only got through a couple of songs before someone shut off the electricity. Through the winter they played all the school gigs that McLaren could arrange. At one college a near riot broke out and the police were called in; at another, opening for Screaming Lord Sutch and using his equipment, Rotten destroyed three microphones and got in a fight when he denied doing it. The band was deafening, Rotten insulted and ridiculed the audience, but he had a definite charisma and the music was angry and exciting. The Sex Pistols' following began to build. In February 1976 they played in a club for the first time — Rotten threw a chair and the band was thrown out — and they got a small review in the music press. The next show was a club date supporting an R&B band called the 10Iers. The Sex Pistols so unnerved the 10Iers' guitarist, one Joe Strummer, that he quit them the next day.

Back in New York, the CBGB bands were putting out records. In 1974 Patti Smith had released an independent 45, and Television did so the next year. These were the forerunners of what would become a torrent of singles from the new music bands. Smith's album came out in '75; it was produced by John Cale, who had been a member of the Velvet Underground, and in some ways *Horses* resembled a Velvet album. It was quirky and raw, and although its unevenness kept the record from being completely satisfying, a few tracks were terrific (try "Gloria"), and it was fresher than anything else offered at the time.

An even stronger statement came in the form of the Ramones' debut album in early '76. *Ramones* was a truly mind-boggling, landmark record: nothing had ever sounded quite like it before, but it transformed rock and roll forever. Now, from the perspective of almost fifteen years, the Ramones' inexorable fast guitar blast can be seen as an inevitable and necessary development; at the time, for most people, it was such an unacceptable departure from their received standards that they rejected it with derision<sup>2</sup>. Those who were perceptive enough to recognize the album's greatness heard 14 fearless, funny songs packed

into less than 29 minutes, as long as it needed to be and no more. On behalf of the new punk rock, *Ramones* threw down the gloves and challenged Rock to a fight.

When Joe Strummer recovered from the shock of the Sex Pistols, he joined the London SS, a band formed in early '75 by guitarist Mick Jones. The churning membership of the group had included several musicians who would go on to greater fame with other bands, but at this point it was made up of Jones, bass player Paul Simonon, and drummer Terry Chimes. Upon the arrival of Strummer the London SS was renamed the Clash.

Through the spring and into the summer the Sex Pistols performed regularly in London clubs, and the movement grew. Their supporters started imitating their style of dress, the ripped-and-pinned fashion that McLaren had taken from Richard Hell. The bored kids in the streets had found a voice in the Pistols, a voice that said things everyone knew but weren't supposed to say out loud: the school system was dehumanizing, millionaire Rock Stars and their music were irrelevant, the government didn't care about the people, and the future was going to be worse. The Sex Pistols would not be ignored; they expressed the rage and frustration of a class that felt oppressed and imprisoned. Think for yourself, their music said, and say what you think.

The nascent British punk faction had an advantage that the Americans did not. Though the population of England was roughly comparable to that of California and New York combined, that nation supported three highly competitive weekly pop music newspapers. Spotting a potential Next Big Thing, the papers devoted an increasing amount of space to the events in both the U.K. and New York. In contrast, the United States had only the fecal *Rolling Stone*, whose feeble-minded editors could not imagine a future that was not named Bruce Springsteen. Even *Creem*, a feisty, irreverent, and much loved magazine during the early Seventies when it had championed the Stooges and Dolls, never turned its full attention to punk; it fatally choose to become the leader of Kiss fandom instead. *Trouser Press* magazine covered the new music intelligently, but its distribution was so uneven it barely qualified as a national medium.

The Ramones played in London on July 4th and provided further inspiration, and it

seemed as if every soul in the audience started a band the next day. The Damned, Chelsea, Eater, the Jam, Slaughter and the Dogs, the Vibrators, and many others moved from basements and garages to stages during the summer of 1976. The Clash began to perform in public too, opening for the Sex Pistols. In September, a tragic incident occurred during a punk band festival at the 100 Club when a woman in the crowd lost an eye to a thrown glass. Although the Pistols were not involved at all, the tabloid press blamed them for it and denounced punk rock and its devotees as an alarming threat to decent folk.

Like two dogs meeting on the sidewalk, the British music industry and Malcolm McLaren warily sniffed at one another, each trying to detect the odor of money on the other. Chrysalis and Polydor were interested, but EMI was more enthusiastic and the Sex Pistols joined their roster of artists on October 8th, receiving a signing bonus of 40,000 pounds. Once EMI made the first move, other labels decided they had to get some punk rockers also or risk missing the fad. The Pistols retired to a studio to record a song called "Anarchy In The U.K.," which was released as a single in late November.

Copies of the 45 arrived in New York a few weeks later, where the band already had a strong underground reputation created by articles in the *Village Voice* and *Punk* (a hilarious short-lived fanzine modeled after the *Mad* comics of the 1950s). A few photos had appeared, and thus Richard Hell's clothing style returned home, to be aped by people convinced it had originated in London. Intrigued by the rumors, I stopped on my way home from work and picked up a copy of "Anarchy" at Discophile, a mostly classical music store in Greenwich Village that was the only place in the city that had it.

I shall never forget hearing that record for the first time — I sat on the floor crying with joy while Johnny Rotten snarled "I am an Anti-Christ / I am an anarchist / Don't know what I want but I know how to get it / I wanna destroy passers-by / 'cause I wanna be / Anarchy". For the first time, I heard the sound I'd always hungered for, a sound that I had carried in my head but had never found on record, and I knew then that other people must have been hearing it raging in their heads too. I think I played that little disc two dozen times before I realized the sun had set and I was sitting in the dark.

The Ramones played faster, and the Stooges' guitar racket on *Raw Power* was perhaps slightly more aggressive (Steve Jones was tamed somewhat by running his guitar through a phase shifter<sup>3</sup>, but Johnny Rotten's delivery made "Anarchy" special. While Iggy had often sounded demented, Rotten came off as scarily menacing, perfectly capable of unleashing the destruction he craved through the power of his voice alone. The song's rage and nihilism made sense to discontented listeners all over the world (it has even been covered by an underground band in China). The Sex Pistols were offering no alternatives or solutions: alienation was the message, and "Anarchy In The U.K." a declaration of war.

Five days after the release of "Anarchy" the Sex Pistols appeared live on a nationwide teatime chat show. Goaded and insulted by the host, the band struck back with a selection of obscenities and curse words. One viewer was so upset he kicked in his TV set. The press went wild, workers at EMI's pressing plant refused to touch the Pistols' record, and the BBC banned it. Other EMI artists expressed their disapproval to the management. A tour with the Clash disintegrated as gigs were cancelled in protest, ending up as only 5 dates.

EMI was squirming under the pressure when the press provided them with an excuse to get out. Unable to perform at home, the Sex Pistols booked a show in Amsterdam in early January 1977. The tabloids then reported that the band had vomited on stewardesses at Heathrow airport. Although EMI knew the alleged barbarism had never happened, the company promptly exercised a termination clause in the Pistols' contract and paid them a 20,000 pound severance fee.

Despite its impact, "Anarchy In The U.K." was not the first British punk single; three weeks earlier a new label called Stiff Records had released "New Rose" by the Damned. In early 1977 the Damned won the race to put out the first British punk LP with *Damned Damned Damned*. A frenetic burst of exciting rock and roll, it formalized the outline of the punk rock that was evolving in England, music that was more vehement than the Ramones (although any band with someone named Rat Scabies in it could not be called entirely humorless) and could even accommodate brief guitar solos. The album's success on an independent label proved that the musicians did not necessarily have to collaborate with

the major record companies whose moth-eaten merchandise punk was repudiating. Having achieved these two landmarks, the Damned left for a short American tour, the first by any of the new British bands.

During their summer '76 U.S. tour, the Ramones met a gang of former altar boys from Cleveland who had formed a band. Although they had not actually heard the Dead Boys play anything, the Ramones were so impressed by the singer's reckless driving that they secured a CBGB gig for the group. The Dead Boys were big Stooges fans — vocalist Stiv Bators had contributed to the Iggy Pop myth by handing him a jar of peanut butter during a concert, which Iggy then smeared all over himself — and they set off for New York determined to become equally (in)famous. Within a few months they became the top attraction at the club.

The Damned's good fortune ran out at the CBGB stop on their tour, where the Dead Boys were scheduled to be the opening act. The Dead Boys had become an exceedingly strong live act, and Stiv Bators, a scrawny little guy with a distinct rodent resemblance, was almost Iggy's equal as a performer. Off-stage, he could be well-mannered, even ingratiating (one writer, interviewing the band at their apartment, noted with amusement that the supposedly incorrigible delinquent carefully refilled the ice cube tray after serving Dr. Pepper to his guest); in front of an audience, however, he transformed into a different person. Like Iggy, he seemed to be able to shed all self-restraint on stage, careening and flailing around as if totally possessed by the music. Bators had also managed the rare feat of inventing a completely new stage move. He would toss the microphone up and over one of the pipes above CBGB's stage, wrap the dangling cord around his neck, and haul himself up in the air for several seconds. It was ghastly and riveting. In perhaps the greatest act of upstaging a headliner since James Brown went on before the Rolling Stones at the TAMI Show, the Dead Boys' set completely overpowered the Damned's. The audience was packed with music writers, and the Dead Boys suddenly received the international renown they wanted.

The Dead Boys' debut album *Young, Loud, and Snotty* was recorded in a mere three days, and the title fairly described the contents: driving guitars, Bators' sneering vocals, and intentionally invidious lyrics. The band had no real political conscious-

ness; the Sex Pistols were inciting class warfare, but the Dead Boys' biggest problem was summed up in "Ain't Nothin' to Do". Most of the songs were self-absorbed ("Sonic Reducer"), misogynous ("Caught With the Meat In Your Mouth"), or both ("I Need Lunch"). It was, in short, an accurate reflection of the attitudes of American male youth. Good taste has never been a prerequisite for great rock and roll, however, and the music was furious and brash.

The album reappeared last year as *Younger, Louder, and Snottier*, pressed on bilious pink vinyl with new, hotter mixes and a live cover of the Stooges' "Search and Destroy" as a bonus. The band had never been satisfied with the original mix, and despite a ridiculous new ending added to "Ain't Nothin' to Do" (pick up the stylus at the first fade out, the rest is unnecessary) and the dubious legality of the thing (the sleeve alleges that the issuer is Necrophilia Records, catalog number NECRO!), this is the version to own.

The Dead Boys' sudden fame led to their downfall. As fans, they knew all the legendary stories of rock and roll star intemperance and license, and felt obligated to equal them (particularly lead guitar flogger Cheetah Chrome). Bators began to act more and more like his uninhibited alter ego, the shows got even wilder (their first producer once convinced a drunken woman to go onstage wearing nothing above the waist but whipped cream and fellate Bators), and the band's alcohol and drug consumption escalated. They ran naked through hotels, smashed up rooms, destroyed equipment, got in fights, wasted their money paying off the bills for the damage they caused. Sire Records increased the budget for the second album and hired former Mountain bassist/producer Felix Pappalardi to oversee the recording, but *We Have Come For Your Children* was still a disappointment. It had a couple of good songs, but largely sounded like an inferior copy of the first record. The final blow came in 1978, when drummer Johnny Blitz was attacked on the street, beaten, and stabbed in the heart; he eventually recovered, but was never the same. Sire chose not to renew the band's contract, and they broke up (although they have played some reunion gigs in the past few years, demonstrating again their live power). Stiv Bators went on to form The Lords of the New Church and play a small-but-hilarious part in the John Waters film *Polyester*. Chief reprobate Cheetah Chrome was, at last word, employed at an

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International House of Pancakes restaurant in Connecticut.

By February 1977 Glen Matlock was constantly at odds with the rest of the Sex Pistols, and they decided to boot him out. McLaren issued a preposterous statement claiming that Matlock was expelled for listening to Paul McCartney records. His replacement was John Richie, who had been rechristened Sid Vicious by his old friend Johnny Rotten. Sid was something of a celebrity in his own right, for he had invented pogo dancing (hopping up and down in place to the music) when the 100 Club became too tightly packed for any other motion. His resume was limited to banging on drums for the first performance by Siouxsie and the Banshees (they played "The Lord's Prayer" over and over until the audience drove them off), but Sid was agreeable to learning bass; as he put it, "You just pick a chord, go twang, and you've got music". He also looked right (his haircut was comparable to a toilet brush), and most important, he definitely had the right attitude.

On March 9th, the Pistols signed with A&M for 50,000 pounds. McLaren turned the event into a publicity stunt by having them sign the contract in front of Buckingham Palace. After the ceremony, and quite drunk, the band went around to the offices of their new record company to continue celebrating. Seen up close, they were rather too much for A&M's delicate sensibilities (Sid was caught washing his feet in a commode), and seven days later, the deal was cancelled. McLaren picked up another big pay-off check.

At this point the Sex Pistols had been paid well over a quarter-million dollars, and had only delivered one 45. Virgin Records, heretofore a staid artsy/hippy label known mainly for Mike Oldfield's *Tubular Bells*, became the band's third record company in less than six months when it signed them in early May. Two weeks later, the Pistols' second single gnawed through its leash and escaped into the world.

"God Save The Queen", indisputably one of the greatest songs in the entire history of rock and roll, was even better than "Anarchy In The U.K.". This time the producer got it right, and the sound was every bit as corrosive as the words; of the 16 tracks used to record it, 10 were filled with Jones' seething guitar. The lyrics took an unprecedented slap at the monarchy and society: "God save the Queen / She ain't no

human being / There is no future / in England's dreaming". Johnny Rotten spat out the song with venom in his voice, and his taunting "We mean it, man" in the choruses was blood-chilling. So charged was the song that just playing it made one feel emancipated, as if listening to it was an act of defiance.

The reaction to the record was incredible — I can think of few parallels for the condemnation of the song and the Sex Pistols endured. As if it wasn't provocative enough, "God Save The Queen" had been released just before Elizabeth's Silver Jubilee celebration. The BBC instantly banned it, several store chains refused to stock the 45, and the Sex Pistols were denounced in Parliament. Outraged patriots physically attacked the band: Rotten was ambushed and his face slashed with razors, drummer Cook was battered with an iron bar and stabbed, and even the Pistols' art director was beaten up, suffering a broken leg and nose. The record flew up the charts and reached number one, forcing the mortified BBC to show a blank at the top position. Despite the furor the group refused to back away from their confrontational stance; they never made any statement that even remotely resembled an apology.

Trying to get a respite from the onslaught, the Pistols toured Scandinavia. When they returned in July Virgin issued a new single, "Pretty Vacant". The BBC, observing the song's 40 place move on the charts in one week, surrendered and allowed a film of the band performing it to be shown on *Top of the Pops*, a TV show akin to *American Bandstand*. The Pistols were still effectively prohibited from booking gigs in England, so for the rest of the summer they snuck around the country, avoiding the press and playing in tiny venues under various aliases.

With the Sex Pistols becoming the most notorious rock and roll band in the universe, Malcolm McLaren was bored with his duties as manager. He came up with a scheme to shoot a feature film around them, an idea the group thoroughly hated. To bring his whim to the screen, McLaren enlisted director Russ Meyer, the auteur responsible for the sleaze saga *Faster Pussycat...Kill! Kill!*, and future TV object Roger Ebert, who had written *Beyond the Valley of the Dolls* for Meyer. A series of scripts emerged with the title *Who Killed Bambi?*, but the active hostility of the band and McLaren's failure to raise any financing sank the project. The Sex Pistols had

been distracted from their music and had come to distrust McLaren; for his part, McLaren had convinced himself that he was entirely responsible for the Pistols' success. They had become an obstacle to his self-promotion, and he just wanted them to break up.

In October the fourth Sex Pistols single, "Holidays In The Sun", was released, and once more there was controversy. A travel agency claimed that the collage on the sleeve violated the copyright on their advertisement, and Virgin was compelled to recall it and print new ones. The record climbed to number six anyway.

One of the consequences of the transition from rock and roll to Rock was the decline of the 45 rpm single as an important means of expression. The single continued to be the medium of choice for pop music, but critics and the Rock audience dismissed it as a small canvas for trifling ideas. Real artists, as this belief had it, made big statements that could only fit on albums, and individual songs could only be appreciated in the context of the entire work. Freed from the time limits of singles, Rock songs gradually increased in length and ostentation, basic songwriting craftsmanship was no longer expected or valued, and the whole concept of catchy, seductive music was scorned. Punk rock attacked this snobbish notion directly; the Sex Pistols' four singles vividly argued for the primacy of songs over albums. Having made this point convincingly, they turned around and put out an album.

To say it plainly: *Never Mind The Bollocks, Here's The Sex Pistols* is a triumph. It belongs to an exalted (and exclusive) group of recordings of such great artistic achievement that they made an impact of historic importance on rock and roll (the others are the singles collected on *The Complete Sun Sessions* by Elvis, and the Beatles' *Sgt. Pepper's Lonely Hearts Club Band*). Elvis didn't invent rock and roll, but his records for Sun transformed it from segregated "race music" into the common tongue of young people. *Sgt. Pepper's* finally forced the adult world to recognize the legitimate art qualities in the music. The Sex Pistols didn't invent punk rock, but they perfected it. *Never Mind The Bollocks* smashed the wall that Rock had erected between the producers and the consumers, took the music away from an aristocracy of musicians, re-ignited the fire in its belly, and returned it to the real owners of rock and roll: those who loved the music. It was a

relentless assault on the powerful and fraudulent; from East Berlin to Los Angeles, from Helsinki to Sydney, kids heard the Sex Pistols album and were inspired to pick up guitars and start asking questions.

The album can be described, but words cannot adequately capture the power of the music. There are unexpected elements like a nasty and pointed song about abortion ("Bodies") that doesn't take the position you'd predict, and the Sex Pistols even turn their blowtorch scorn on themselves in "No Feelings" ("I got no emotions for anybody else / you better understand I'm in love with myself") and "Seventeen" ("I'm a lazy sod / I'm so lazy / I can't even be bothered"). They strike back with "New York" at the jealous former members of the New York Dolls who had disparaged them, and aim their contempt at craven record corporations in "EMI". The album contains the four previously released singles, which are unmistakably the band's best work, but there is not a single bad song. Like the Beatles and Presley records, *Never Mind The Bollocks* is so superior and distinctive that it is almost immune to critical comment. Although I must note I have always thought "Submission" to be weaker than the other songs, even with this minor flaw, *Never Mind The Bollocks* is exhilarating, fierce, impassioned music that can change lives<sup>6</sup>.

Of course the album created more problems for the band, since "bollocks" is, in Britain, a slang term for testicles. The respectable media refused to accept ads for it, and several record stores that displayed a promotional poster for it were charged under an arcane 19th century statute called the Indecent Advertisements Act. In the first such case to go to trial, a Professor of English Studies testified that the naughty word could also mean "nonsense". The disgusted court dismissed the case but did call the poster "the vulgar exploitation of the worst instincts of human nature for the purposes of commercial profits". Four weeks after its release, the album moved into number one on the British charts.

The Pistols toured Holland for a couple of weeks and then resumed giving secret shows in England. In late December *Saturday Night Live* announced that the band would appear the following week. The U.S. State Department refused to give them visas on the grounds that several had criminal records, so the Pistols played a pub outside London that day instead and Mr.

Elvis Costello substituted on *SNL* (showing the proper spirit, Costello performed a song that the show's director had expressly forbidden).

The visa decision was successfully appealed, and McLaren set up an American tour for January 1978. Confounding expectations, he announced an itinerary that consisted of Atlanta, Memphis, San Antonio, Baton Rouge, Dallas, Tulsa, and San Francisco. Except for the last, none of these cities were known as punk rock hotbeds. McLaren had a variety of reasons for this bizarre schedule. He hadn't given up the dream of a movie, and he reasoned that placing the Sex Pistols in front of audiences of hostile rednecks would provoke the band to new heights of outrageous misbehavior that could be recorded for the film; furthermore, the stress caused by the tour would surely destroy the group, his second goal. McLaren had never been to the South — what little he knew about the region seems to have come from hill-billy movies — and he had concocted a half-baked romantic fantasy that the Sex Pistols would cause impoverished Southerners to rise up and overthrow capitalism. Obviously, the whole enterprise was doomed.

The tour was a nightmare. The band saw little of the country but the tour bus and motel rooms. The American press treated them as an amusing novelty and their message of discontent as merely another marketing gimmick. After militantly refusing to make any concessions to the music industry, the Sex Pistols had suddenly become critically acclaimed and successful merchandise. Rotten unhappily recognized that the business would figure out a way to dissipate and absorb them, and the Pistols would wind up as just another Rock band grinding out formulaic songs on demand. The band's music had ultimately drawn its power from their integrity, they clearly meant what they said, and now they were at risk of losing that strength.

Cook and Jones, talented but essentially dim-witted louts, were quite content with the hedonistic life they were leading; Vicious, almost constantly junked up, misread Rotten's sullen deliberation as an effort to behave respectably and felt obliged to compensate by becoming even wilder. In Atlanta the crowd hurled insults, in Dallas they threw beer cans and a woman jumped on stage and punched Sid in the nose. He stood there for the rest of the set with blood running down his face. A riot broke

out in Memphis when the show was oversold and hundreds of fans were turned away. In San Antonio Sid swung his bass and clubbed a cowboy who had been yelling at him.

By the time the bus finally rolled into San Francisco, Rotten knew the time had come for a final subversion. Rather than allow the industry to neutralize the group, he would destroy it himself. After the last show on the tour — from the evidence a superb one — he quit. In "EMI" the Pistols warned, "You thought that we were faking / that we were all just money-making / you do not believe we're for real"; by self-destructing, the band once more defied expectations and proved they were indeed sincere.

Rotten eventually went back to England, where he resumed using his real name, John Lydon, and assembled a new band, Public Image Ltd.. Cook and Jones, bewildered by the swift turn of events, flew to Brazil accompanied by McLaren's film crew. They hung out with Ronald Biggs, one of the perpetrators of the Great Train Robbery, recorded a dull song ("Belsen Was A Gas") with Biggs doing the vocals, and went home. Sid flew to New York, suffered a drug overdose en route, and was hospitalized.

McLaren was widely thrashed by the press and accused of manipulation (and worse). He realized that the breakup of the band did not mean that he was free to make himself famous; rather, it meant that he had lost the source of his money and importance. He plunged ahead with the film, determined to finish it. When Sid left the hospital, McLaren talked him into going to Paris to shoot a few scenes, and sent Cook and Jones there too. Sid was back on drugs again, but he was enthusiastic about the movie since he knew that he was going to be the star with Rotten gone. Julien Temple, McLaren's director, took the footage he shot, added in old performance clips and tentative bits left over from *Who Killed Bambi?*, and miraculously edited it all down to a pretty wonderful movie, *The Great Rock 'n' Roll Swindle* (available on videotape, and recommended).

Sid returned to New York with Nancy Spungen, his girlfriend for the past several years and the person who introduced him to heroin. They moved into a hotel suite and tried to live off Sid's celebrity status. In October, Nancy was discovered stabbed to death in their rooms, and Sid was charged

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with the murder<sup>7</sup>. McLaren, seeing an opportunity for exploitation, hurriedly flew to New York, paid the bail, and tried to drum up interest in a Sid Vicious biography film. Sid attempted suicide, was jailed for starting a fight in a nightclub, and was bailed out again. On February 2, 1979, the poor wretch died of an overdose.

Sid is worth examining for a moment; it may surprise the reader to know that he has become something of a cult figure. A walk down St. Marks' Place in Greenwich Village today will reveal T-shirts with his picture for sale and "Sid Lives" scrawled on walls. There has been at least one Sid Vicious fan club, and he was the subject of a highly praised film (*Sid and Nancy*) a couple of years ago.

Why does this unsavory junkie continue to fascinate? I suppose I can safely claim to be the only writer for a high-end audio magazine who ever talked to Sid. I was at a Dead Boys concert at CBGB on Labor Day '78 and I saw Sid walk in. I was flabbergasted; I was (as should be obvious) a huge Sex Pistols fan, yet had no idea he was in America, much less the same club. I worked up my courage and approached him. I was quite drunk and babbled like a fool, Sid was friendly and far more patient than I would have been if the positions had been reversed.

Aside from the morbid and glamorous appeal of his spectacular crash-and-burn life (why do you think the most rabid Elvis fans idolize his grotesque lardass phase, rather than the earlier rockabilly revolutionary period?), I think the reason for Sid's continued popularity is precisely because he was, by any objective measure, worthless. He wasn't exceptionally bright (in interviews he seems more clever than smart), he could barely play the bass (Steve Jones played it on the album sessions), he was obviously self-destructive<sup>8</sup>, yet despite his faults he still became world-famous as a member of one of the best rock and roll bands ever. Sid understood perhaps as well as Rotten what the band's struggle was about, and he tried in his own sad way to keep the fight going as long as he could. All he really had was an attitude, and a lot of it, but maybe that was enough. For kids who feel different or funny-looking or alone, the lesson of Sid Vicious may be that once in a while, one of them can make a difference.

One final point about Sid: before dismissing him entirely, listen to his version of the

Sinatra standard "My Way", recorded during the filming in Paris. It wasn't Sid's idea to do the song, but he was responsible for warping it into a scurrilous parody and a torrid rocker. For three minutes he managed to find a tiny speck of greatness within himself; it's a terrific and funny record, a screaming affirmation of his individuality, and a worthy memorial. The Sex Pistols were gone, but there was more to punk than just them. ■

<sup>1</sup> The full name of this sacred spot is CBGB-OMFUG, "Country, Blue Grass, Bluds, and Other Music For Uplifting Gourmandizers".

<sup>2</sup> An embarrassed confession: I bought Ramones in 1976 and hated it so much I gave my copy to a friend. Two weeks later I begged him to give it back.

<sup>3</sup> There is a savage alternate version of "Anarchy" on the soundtrack album to the film *The Great Rock and Roll Swindle*; I prefer it to the single.

<sup>4</sup> I recently read the tragic news that Stiv Bators died on June 4th, after being hit by a car in Paris. Have the French, frustrated at their inability to produce any good rock 'n' roll themselves, taken to killing other countries' rockers? Just what you'd expect from a country that deified Jerry Lewis rather than Jerry Lee Lewis.

<sup>5</sup> It is instructive to compare the current attacks on rap music to the Pistols' problems. Last year, the FBI officially censured the group N.W.A. for their lyrics, and a successful campaign to disrupt N.W.A.'s tour may have been masterminded by the Bureau; the ignoramus governing Florida (and up for reelection) is presently trying to whip up the peckerwood constituency by persecuting 2 Live Crew. C'mon guys, aren't there more pressing problems you could address?

<sup>6</sup> In case the reader suspects I am overly generous in praising this record, or that I am some sort of crackpot eccentric, note that even the traditionalist chowderheads at *Rolling Stone* agree about its merit: in 1987 their writers voted it into second place on a list of best LPs of all time. First place went to Sgt. Pepper's.

<sup>7</sup> He may not have killed her. There was reason to suspect their drug dealer, and just before he died, Sid's lawyers announced they were going to seek a dismissal of the charges due to lack of evidence.

<sup>8</sup> Once, during the American tour, Sid was trying to eat breakfast when he was surrounded by a group of good ol' boys wanting

to start a fight with the famous punk rock star. Without looking up or saying a word, Sid took his knife out, slashed his arm, let some blood fall into his cereal, and then ate a spoonful of it — his tormentors immediately left, horrified.

## Next Issue:

### Part Two of Rob Doorack's History of Punk Rock,

featuring

"The Only Band That Matters"

The Clash



# THE NATURAL CHOICE

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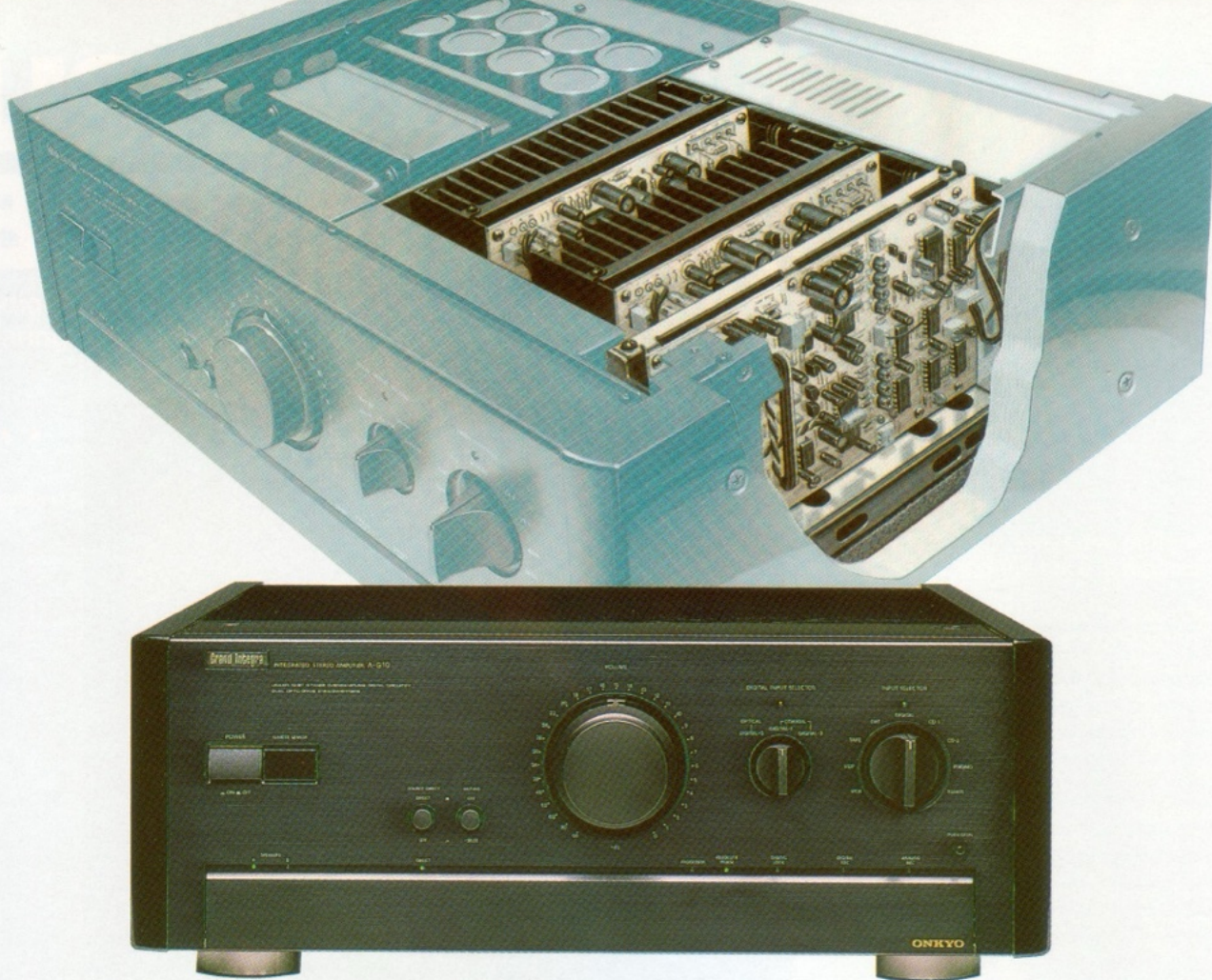
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# Crossroads

## Tracy Chapman

by Hector G. La Torre

Tracy Chapman's 1988 debut album, *Tracy Chapman*, surely must have sent shock waves through the music business community. Here, after all, was a young, Black-American woman writing and singing insightful, potent lyrics about racism, poverty and limited options for the underclass. Moreover, she was doing it all in an acoustic, folk-rock framework. This was something the music business had no slot for — no pigeonhole. Where, they undoubtedly asked themselves, are Chapman's strutting sexual innuendoes? The fatback kick drum and synthesized horn parts? Can America dance to this stuff?!

Thank goodness music listeners aren't as provincial in their acceptance of new talent as are record companies. Listeners took to Chapman in droves — purchasing over 3 million copies in the U.S., and nearly 10 million worldwide. And why not? Tracy manages the rare feat of bringing stories to life via music. She is capable of conjuring up vivid pictures with her lyrics. When she sings, your imagination sets up a 3-D film projector in your head. MTV need not apply when Tracy Chapman starts to sing.

There's a long-standing saying among musicians who have signed on with a record label. It goes something like this: "You have all your life to write your first album, but only six months to write your second." The saying explains why so many new artists, hailed as musical saviours on the strength of their initial release, fall off the face of the earth with the release of their follow-up. There's no time to sit and write. Press conferences, live dates and live

eat up your creative time.

Tracy Chapman has no doubt battled with that demon. She is a classic example of a potential supernova. She had a brilliant start, but with the issuing of her sophomore collection people were very interested to hear if she had staying power. Well, if *Crossroads* — Chapman's latest — is any measure, you can fold up your concerns and put them out with the trash, because she's come through again.

*Crossroads* continues Tracy Chapman's trip into America's conscience. In her low-keyed, husky-voiced manner she sings of the homeless falling through the bureaucratic cracks and tumbling into a subcity, from which the government is doing nothing to pull them out ("Subcity"). She also continues to inform about racism and the stranglehold it has on society. Using Nelson Mandela as an example, she calls out — in "Freedom Now" — to, "Let us all be free...free our bodies, free our minds, free our hearts/Freedom for everyone...And freedom now."

*Crossroads* offers more than a singular political mood, however. There are songs ("Crossroads", "Material World") about keeping your soul and spirit intact, despite the temptation to sell out — as a person and as an artist. In addition, Chapman hits us with love. But she doesn't represent it as a glorious cosmic dream. This is a real life stuff — lovers apologizing, setting new guidelines and either starting out fresh or hitting the road.

The musical arrangements of this album are a major component in helping to convey Tracy Chapman's messages. Producer David Kershenbaum, using many of the same players he used on the first album, lets the songs breathe by keeping arrangements simple and having the instruments support, not compete with, the vocals. Acoustic instruments are at the heart of this recording, lending themselves perfectly to the unadorned style of the arrangements.

Tracy Chapman's *Crossroads* deserves a place alongside her first release. It won't receive the same attention, but that will be due to a jaded press looking to move on to the latest musical phenom rather than because of any fault of Chapman's. Some may criticize this album for being too similar to its predecessor, and, in fact, it is similar. However, Tracy manages to keep her subject matter fresh with her heartfelt performance and compelling lyrics. *Crossroads* is an excellent release, lyrically soulful and intelligently constructed. I'm already looking forward to Tracy Chapman's third album. ■

# ARGYBARGY

## TDL

The *raison d'être* for transmission-line loading is that it extends bass response below that conventionally obtainable from a given enclosure size. By way of reciprocity, the transmission-line does place limitations upon bass efficiency and bass overhang. However, to restrict band-pass at low frequencies in the manner suggested, would negate the requirement for a line at all!

If a speaker were perfectly aperiodic (non-resonant), it would have a Q of 0.3 and the bass would fall away at 6dB per octave, which would be clearly unacceptable. Art has been described as a science with more than seven variables. This certainly places the tuning of loudspeakers within the constraints of artistic licence. In practice, to have bass is to have resonance. The more that bass is extended and enclosure size reduced, the more this must be addressed — transmission-line or otherwise. In the end, the argument is whether we want the bass or not.

Your review implies that whilst the bass response of the TDL Studio 1 enhances the foundation of much classical music, by making it full-bodied, this deters from the attack encountered in type of material that exists only in reproduced form, which is usually balanced for speakers of a different idiom. This is entirely predictable, because classical music contains more low frequency information, even if only platform resonances and other ambience, which is often of a sustained nature. Music that is deliberately electronically manipulated is often less extended, and the upper bass more immediate, neither of which can benefit from transmission-line loading, and may even be enhanced by a speaker of lower band-pass and higher efficiency.

We therefore have no quarrel with the review in *Hi-Fi Heretic* — except that you don't like the speaker! We agree that the presentation is laid-back, even relaxed — this is considered an attribute, since on natural music presentations it is capable of portraying, even at low listening levels, an acoustic

stature of a speaker many times its size.  
John S. Wright  
TDL Electronics, Great Britain

## Tannoy

As I hope your readers will recognize, the technology behind the Tannoy dual concentric design is quite different to most home hi-fi speaker systems. However, it must be judged by reviewers to the same standard as all other speaker systems — does it make music in a realistic way? Your review clearly shows that it does, though some of the comments do warrant a response.

Certainly, some of the effects noted in the review can be compounded or even created by the equipment that is used during the review procedure. We suspect that a different choice of some of the reviewer's equipment could have helped alleviate the slight lack of airiness and improve the imaging qualities (which we believe to be one of the DC3000's great strengths) noted in your comments. You mentioned the Naim amp — what about listing cables, source, etc. in future reviews?

Thanks for the opportunity to have one of our products reviewed in your magazine, and for the "Dual Concentric" sidebar.

Barry Fox  
Director of Sales and Marketing  
Tannoy

## Chapman

We at Chapman have, for the past twenty five years, dedicated ourselves to the pursuit of creating the most musically accurate full-range loudspeaker, at a price that makes it an undeniable value.

The review in *Hi-Fi Heretic* solidly underlines the achievement of this goal. Chapman Sound Company would like to thank *Hi-Fi Heretic* for its objective look and flattering comments in your review of our T-7.

Stuart Chapman Jones  
Chapman Sound Co.

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**Issues Two, Three, Five, Nine, and Ten are all completely sold out.**

Issue Six is in very short supply.

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# The Black Box (In black and white)

A&R's Black Box is one of those products for which the review writes itself. A faultless product about which you can only say good things.

If you have an old (or not so old) CD player that is showing its backside in the presence of ever newer and better machinery; and it is equipped with a wired digital output (a phono socket makes things easy but is not essential) then take your player along to your nearest A&R stockist for a demonstration. Take your cheque book too - you are going to need it!

## WHICH COMPACT DISC?

In most applications involving middle price CD players, and in some cases even with expensive ones, the *Black Box* provides excellent (improved) bass and significantly tightens up stereo resolution and clarity, without any tendency to brightness or stridency. This elegant add-on appears to be conspicuously good value for money.

## HI-FI CHOICE

*As ever, our ultimate accolade goes to a product able to bring superior sound quality to a wider audience at an affordable price.*

Simple it may be but the Black Box points the way forward to the day when digital sources will be totally DAC-less. For the moment, it offers stunning upgrade potential at an affordable price.

## WHAT HI-FI? GRAND PRIX AWARD 1989

Arcam are to be heartily congratulated on the technical and subjective success of their proprietary Black Box, it represents real value for money engineering without any serious audible compromise. With its \$649. price tag, the Black Box cannot really fail; only if it were significantly more expensive would a complete CD player upgrade be worth considering as a viable alternative. As it stands, the Black Box will lift any digitally-equipped budget CD player into another league. If there is any justice left in the world, Arcam should sell this particular black magic box by the truckload.

Anyone with a budget CD player having a digital output can now join the audiophile league for just \$649. No comparable extra expenditure on a complete CD player could effect anything like the changes the Black Box will bring.

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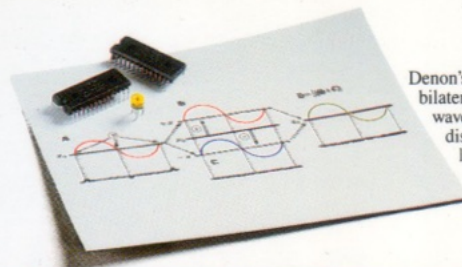
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Denon's consistent leadership in digital audio technology may explain why earlier generation

Denons often sound better than current competitors' models. And why a leading hi-fi journal found that a moderately-priced Denon equalled or outperformed all others tested, including machines costing over \$1800.

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