10 Loudspeaker Reviews – Wilson Maxx to Quad 989

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THE HIGH END JOURNAL OF AUDIO & MUSIC™

ISSUE 126 • OCTOBER/NOVEMBER 2000

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Guilty Pleasures –
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ABSOLUTE MULTIMEDIA, INC. · 7035 BEE CAVES ROAD, SUITE 203 · AUSTIN, TEXAS 78746
PHONE (512) 306-8780 · FAX (512) 328-7528 · E-MAIL absolute_multimedia@msn.com

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Front Cover: The Wilson MAXX
Epigraph: Imagination is evidence of the Divine. *William Blake*

The Guilty Pleasures of a First Love

The reaction to last issue's editorial on Guilty Pleasures caught me by surprise. Contrary to what many of you might suspect, we seldom get mail about any given article, and less than seldom specific responses to either reviews or, gulp!, editorials (a notable recent exception being Jonathan Valin's tribute to the courage of Dr. Roger A. West).

We had, quite evidently, struck a resonant chord. And set me to thinking.

Meanwhile, the first batch of essays (but far from the last) from select members of the staff on their Guilty Pleasures arrived and I found myself, as I trust you will, deliciously surprised. Who'd have thunk that Robert E. Greene, that rigorous analyst and mathematician, would go for Julie London? Or that the august Dr. Andy Quint would find comfort in the musical arms of Eminem (a.k.a. Marshall Mathers).

Such have set me to thinking about another kind of guilty pleasure, musical first loves: Those pieces of music that first turn us on to music's power to shape the imaginative life.

In my case, the first that I remember was Prokofiev's *Peter and the Wolf*, which I was exposed to at the tender age of five. My parents loved to go out dancing to Big Band Music, and their collection of recordings (played back on a large-ish Zenith console) were mostly these. Don't ask why (unless one can be a reincarnation of a "future" self), but from the age of three or so, I became fascinated by this device and within no time, since I couldn't read (despite my entreaties), had learned to distinguish among their singles by the color of the record label, the amount of print on it, and the size and spacing of the grooves. There were also three, possibly four, albums. Including the Prokofiev, at the tail end of which – when the captured Wolf is being paraded through town – you hear the unforgettable minor-key melody for the duck, earlier swallowed by the wolf. And the narrator tells you, as the orchestra executes a diminuendo, that the duck is still swimming around in the wolf's stomach because, in his hurry, the wolf had swallowed him (pause, for dramatic emphasis) "*alive.*" A quick chord ends the piece, leaving the young Harry not just troubled and upset, but somehow wounded. I could have accepted the fate of an eaten duck, but not one still alive.

I hadn't thought of this in some years, but as I did now, and thought of other pieces of music that have stuck in mind, the idea of an unresolved ambiguity has endured. During my later childhood, I loved a song on RCA called "Bermuda" by a female duo, The Bell Sisters, who had two hits and vanished. You learn at the outset that she (or the two sisters) went sailing with a guy she loved and that she lost "her loved one there on the blue." She sees his hair in the sunlight, "his eyes in the water blue" – but as the song wraps up, she tells you "in Bermuda waters, so clear and cold, I await my loved one, as I grow old." She drowned? And she beckons? Not he?

A bit later, on Decca, Peggy Lee released a song she wrote called "Sans Souci" (without sorrow), in which the chorus is chanting "Rowboat, go, go" in the background, as Lee pipes out elliptical lyrics, like, "They got no room here/for someone like me." Here? Nobody has mentioned a specific place. Someone like me? Whatever does this mean, since she has not defined herself, directly, as an "outsider?" Play it as often as I would, I could find no answer to the riddles the song posed. Guess you'd called it an example of the Pearson Principle of the Specific Vague (PPSV). And what, dear hearts, has Phil Collins been "waiting for all of my life" in "The Air Tonight?" Or Jimmy Spheeris *[Isle of View,* Columbia 30988] in "I am the Mercury" when he sings "I have been bought, I have been sold in the city/I've dined with the demons and drunk of their fear."

Devoid of a specific context (the Spheeris being a brilliant example), I found my own creative imagination set loose to take wing and, to quote Spheeris from the same song, "weave light where it's storming."

Ofttimes, the music itself, minus words, would set the scene and I would, imaginatively, paint the picture. This began with the arrival of adolescent hormones, I suspect. And the very first classical piece to strike up those fancies was Respighi's *Pines of Rome.* Funny isn't it, how we tend to look askance, if not down upon, those earlier classical enthusiasms, and just as odd how the first interpretation we hear of a piece is the one by which we'll judge all future interpretations? In this instance, it was Toscanini (Reiner's later version is a carbon copy, by the way), and the Catacombs I imagined were one scary place. Vampires. Brain-sucking demons. Revenants. Or later yet, Munch conducting *Daphnis & Chloe,* where, to "Sunrise," I was, cloud-like, floating over the European countryside, watching the blue shadows stripe the green landscape. And writing to the accompaniment of the music, using it to evoke the moods I wanted to invoke. I think of these as "guilty" pleasures because they are such intensely personal ones. As we grow more sophisticated, or so we think, we tend to detach the personal from our appreciation of the music, to the point that we experience music in a more absolute way, as a pleasure unto itself without much reference to the imagination. Rather we enjoy it in a way approaching pure feeling. Our musical roots, though, first thrive in the soil of guilty pleasures, those pieces we remember because they've spurred a longing for something outside of, beyond, and greater than ourselves. The nice thing is that these encounters are not necessarily confined to the past – we yet come face-to-face with them through the love of music.

LETTERS

Surround Sound Controversy

I. Does JGH Have a Pointless Pen?

Editor:

Thank you so much for printing my letter (Issue 124). I was initially delighted to see a reply, only to be disappointed in the end. I found Mr. Holt's usual pointless pen to have degraded into condescending brable [sic]. No challenging exchange of ideas there!

I could have made comments like, "Mr. Holt must never have heard a modern stereo system" or "He must have a season ticket in the brass section," but what do I know about his life?

To answer Mr. Holt's ignorant insults, let me first say that I did mention I am a professional classical musician. I have vast experience with different aspects of concert-hall acoustics, including many most music listeners haven't thought of. Secondly, I failed to mention my day job, which includes acoustic-treatment installations for custom-built surround-sound rooms stocked with names such as Lynn, Lucas, Meridian, and other nosebleed-level systems.

TERRY PHIPPS
LA MESA, CALIFORNIA

JGH Responds: *My apologies. I did not intend to insult or offend. It's just that I sometimes find it difficult to comprehend how so many people have trouble seeing things that seem self-evident to me.*

An example: Since the ambience we hear in a concert hall is surround-sound, would it not seem to follow that the realism of the sound must increase when the reproduction is in surround sound? Can anyone reasonably dispute that?

II. JGH in the Doghouse, er, Lobby, Again

Editor:

For Mr. Holt, a profound and respected veteran of this industry, to refer to stereo sound as "like listening from the lobby through an open door" is absolutely and utterly idiotic. I've seen new technologies influence magazine writers before, but this is an extreme case of pushing the new. I know that pushing surround sound is going to generate a truckload of sales and ad dollars, but please, do it when it makes sense. We are nowhere near acoustically accurate surround sound and, to be quite honest and a little skeptical at the same time, I don't think that we ever will be. I ask [you] to put Mr. Holt's talents to better use. Right now he is wasting my time, his own time, and precious space in this magazine. I'm sorry, Mr. Holt, but Terry Phipps' analogy [comparing JGH to Julian Hirsch, we assume. – Eds.] is right on the money (Letters, Issue 124). Please – do something constructive with your time now that you are at a better magazine. Cheers!

GEORDY DUNCAN
RED DEER, ALBERTA, CANADA

JGH Replies: *Mr. Duncan, as someone who probably gets to hear more live symphonic music than any other reviewer, I feel qualified to recognize "acoustically accurate" reproduction when I hear it, and I hear a lot more of it from good surround systems than I ever did from any stereo system.*

It seems obvious to me that a reproducing system that can only deliver hall reverberation from the front cannot possibly render the full performing space as accurately as one that delivers side and rear reverb from the sides and rear. (Certainly, no home listening room can do it, because small-room reverb doesn't sound like concert-hall reverb.) If the simple truth of that proposition outrages stereo Luddites, so be it.

I'm not claiming that surround sound makes reproduced music sound just like the real thing, although, for the last few weeks, I have been living with a system that comes awfully close (more about this in Issue 127). What I am saying is that surround reproduction can bring reproduced realism to a level that no mere stereo system can aspire to.

III. Give Surround Sound the Benefit of a Listen

Editor:

After reading the numerous articles written by the esteemed J. Gordon Holt in both *The Absolute Sound* and *Stereophile* on the topic of surround sound, I feel compelled to comment. Years ago in *Stereophile*, he reviewed an interesting piece of equipment manufactured by Audio Research, the SDP1 Spatial Definition Processor. No other single piece of audio equipment I have owned has so changed my listening habits. It is sad to see that the SDP1 (or a successor) is no longer offered by Audio Research. I suspect it never really sold because audiophile purists believed that music must be heard through only two channels. I give Audio Research credit, however, for trying to challenge "normal" listening habits.

With J. Gordon Holt's recent series of articles on surround sound ("The Surround We Own," Issue 125, the latest), I recommend music lovers (I hope there are a few audiophiles who like music) to finally take his argument for surround sound seriously. There is much ambient information on many LPs, CDs, and DVDs, and a capable processor offering sophisticated surround modes will present a considerable realism in music. The sense of space (ambience) can bring a three-dimensional reality to the listening experience.

Although I have a considerable investment in audio equipment, as well as a dedicated custom-built audio room, it's the music that matters. My friends, many of whom are naive on audiophile equipment (and believe I am in need of psychiatric assistance given some of my equipment purchases), consistently hear the benefits of

ambient information extraction.

So give J. Gordon Holt the benefit of doubt, and give surround music listening a try!

DR. NED F. KUEHN
SOUTHFIELD, MICHIGAN

JGH: *Thanks. I needed that.*

The Importance of Component Matching: A Real-Life Story

Editor:

I recently purchased a used pair of Avalon Eidolons, thoroughly broken in, I have been told. They replaced Aerial 7Bs, a nice speaker, though lacking the refinement, accuracy, frequency extremes, and in many ways the musicality of the Avalons. As expected, the equipment that worked so nicely with the Aerials have stunk up the room. These speakers are so revealing that unless proper component matching is obtained, the idiosyncrasies of the upstream units become all I notice.

I presently have a Classé 301 amp (ballsy and quite musical with the Aerials. Actually they are remarkably fast [dynamic?] with the Eidolons. Slightly toward white and too forward. Everything is there, only not musically.), Jadis JP80MC preamp, Sony SACD, Purist Audio Dominus speaker wire, Siltech gold cables, and Electra Glide expensive power cords.

A friend, who purchased my old Avalon Ascents and subsequently moved to the Eidolons, lugged his Lamm M2.1s over. These amps, which I have read nothing but exemplary reviews of, fell short in almost all categories powering my system. In all but staging and warmth, these beautiful amps failed. The speed, delineation, bass tautness, etc. [were compromised]. The highs rolled off, the bottom sluggish. Some improvement in the mids, but not nearly enough to draw my attention from all that was lost.

Now, to my point. My buddy, who has gone to tremendous lengths to fine-tune his system, was surprised to hear speakers identical to his, powered with his amps, offer such a different presentation. His source differs, as does his cabling, which we understand is not to be casually dismissed. Thus, comes my concern about reviewing components. How can any piece of stereo equipment, especially in the High End, be critiqued without affording the reviewer many, if not countless, pieces to bring the best out of a specific component? I know the Lamm is an excellent piece. I believe it to better the Classé in nearly all [ways in absolute terms] – but not in my system. My friend's system reached its pinnacle only after several wire changes, swapping of tubes, and other neurotic tweaks. The sound is musical, hard-driving, intensely accurate, and, most importantly, a joy to listen to.

I, on the other hand, have a way to go. In Milwaukee, auditioning certain equipment is [often] impossible. I have, over the years, somewhat trusted your ears to lead me toward sonic bliss. I now understand the difficulty of achieving such an undertaking. As my friend hauled the amps back into his car, I realized how assessing pieces of someone else's components was not something I would or could have anything to do with.

I feel quite sure that nothing I have written here is new. After all, we are all looking to the gods for the unattainable, slippery truth.

Thanks for trying. It makes for great reading and allows my heart to beat just a bit faster when a new, all encompassing piece of wire makes its debut on your cover, spreading the joy of music to one and all.

STEVE NEUFELD
BAYSIDE, WISCONSIN

HP Replies: *One of the reasons I try to keep a variety of equipment on hand, and use at least two listening rooms, is to subject any component to as many variables as I can. This is one of the reasons that the observational reviewing technique is not quickly accomplished. We know, and all too well, the dangers of incompatibility among components and how easy it is to miss the boat. One component that springs immediately to mind: our experience with the Thiel CS-7, which only performed its best with high-powered amplifiers. Much the same is true, for example, of the Wilson Audio speakers of yore, which need either an amplifier of high power or one relatively insensitive to severe droops in a speaker's impedance curve. We could go on with this, i.e., the impedance mismatches that occur between tubed and solid-state equipment. Even so, we can only cover so many of the possible combinations, as you have perceptively noted. And sometimes we find strange incompatibilities, ones we would never have suspected – say, the unhappy combination of the Atma-Sphere OTL amplifier with the hybrid Wisdom Audio speaker's planar/magnetic panels: Who would have known? I, for one, would never buy a component until I had had a chance to insert it into my own system to make sure its new home would be a happy one.*

The (Lousy) Sound of DG's Shostakovich Quartets

Editor:

I am a new reader, and I always enjoy your magazine. However, I must take exception to the review of the Emerson Quartet's recordings of the Shostakovich String Quartets. I bought the DG single recording with the *Eighth Quartet.* As it was only $5.99, I thought that it would give me an idea as to what to expect sound-wise.

Well, I started with my rather mundane home system – listening session No.1: Performance – 5 stars. Sound – 1 star.

Then I took the CD to my local hi-fi shop and played it on several systems that ranged from about $8,000 to $25,000. Performance – still 5 stars. Sound – 2 stars.

As we – myself, three salesmen, and several customers – listened, we wondered if the group had been recorded in a closet. There was no ambience, sparkle, space, depth, air. In fact, it sounded like the microphones had been placed right on top of the players! I know that Apsen's stage is not huge, but the recording makes it sound tight and closed.

Was this an effort to prevent audience noise?*

I am a fan of the Emerson Quartet, but I am going to have to decide if I can get past the rather poor sound to get into the wonderful performance.

Finally, Andrew Quint mentions the Fitzwilliams Quartet recording on Decca. Now that's a great recording! But the DG/Emerson the best sound of them all? mmmmm....

MARK WAGNER
AUSTIN, TEXAS

** Surely.*

Andrew Quint Replies: *My sense is that Mark Wagner and I have similar priorities when it comes to the Shostakovich quartets. I gather he values this music highly, and was impressed with the Emerson's way with it, at least based on his audition of the* Eighth Quartet. *It's on the matter of the sound that we part ways. There is, of course, always more than one valid way to make a recording, and this is never more true than when it comes to chamber music. An engineer can seek to communicate the nature of the venue in which the performances were realized. Or, with a small number of musicians playing relatively small instruments, he can transport the event to our listening rooms.*

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continued from page 13

Without a doubt, the London/Decca CDs – not to mention the LPs – documenting the Fitzwilliam Quartet's Shostakovich have more "air" and a feel of the space in which the group was recorded (a church). One is in the audience at a great performance. Mr. Wagner is probably right: A more distant sonic perspective on the DG effort could have resulted in distracting audience noise. But even ignoring that issue entirely, it is thrilling to have the Emerson spread out before you, in an almost palpable fashion – the immediate sound serves well the wide dynamic excursions and dramatic intensity of their readings. The tonal truthfulness of the recording is notable and ensemble balances are unassailable. Mr. Wagner is entitled to prefer the approach heard on the Fitzwilliam's discs, but to characterize the Emerson set as having "rather poor sound" is to overstate things considerably.

Price vs. Performance
I. In a Fog Over the Pricing of Audio Cables

Editor:

I just started reading your magazine and it is a refreshing change from the other "High End" publications. While others seem to try and impress/befuddle readers with all sorts of techno-jargon, you simply tell it like it is, and skip most of the information that most people do not understand – and if they do understand it, and are not electronic engineers, then they have simply too much free time.

To me, the High End audio market, like the High End car market, is a subjective thing. One may prefer one brand over another for personal reasons, while both are exceptional performers. What I enjoy about your magazine is that your writers seem to recognize this aspect in their reviewing.

One thing that has me in a fog, though, are interconnects and speaker cables. I understand the reasoning behind the construction. Where is the point of diminishing returns? Are $2,400 speaker cables worth it or are they just the emperor's new clothes?

TOM NEILSON
ROCHESTER, NEW YORK

HP Responds: *Sad to say, in most cases, there is a correlation between the price of the cable and the excellence of its sound. Not always, of course. And this is where the snake oil comes in. Often, cable and connector manufacturers will mark up their products more than 80 points, thus allowing your Olde Audio Shoppe to make a killing, or in effect, to discount the price of an entire system (and in a business that frowns on steeply discounted component prices). But there is little point in paying high prices for interconnects in a system that does not exhibit the last word in resolution. The reviewer is at sea here because he cannot possibly guess the level of resolution of any reader's system and must therefore evaluate the performance of connectors on an absolute basis (in other words, he attempts to determine the excellence of the cabling based on his own reference system, which, in all too many cases, may not be the last word itself in resolving information). Making all of this more difficult is the peculiar way in which connectors, of all kinds, tend to react to an individual system, which can be unpredictable. In my own case, I refuse to evaluate cabling that sounds different from system to system during the evaluation process. I want interconnects that sound the same no matter the system in which they find themselves.*

ERRATA

G. computerii — Again

Sharp-eyed reader Wolfhard Schulz uncovered one of several strange errors in Dan Sweeney's Recommended Music piece, Issue 124 (page 143). *Si Vous Passez Par Là* was credited to a group called 3 Moustaches 3, who really call themselves 3 Mustaphas 3. (Our Gremlins have a sense of humor, at least.) What Schulz didn't catch, but Sweeney alerted me to, is that the Turkish *saz*, a long-necked lute, got transmogrified into the "Turkish sax." What neither knew: When that article came in, the title of this piece was completely garbled. We caught that, but not the others. The Gremlins don't speak French *or* Turkish, and changed words they didn't recognize, spell-checker-like, into words they knew, however nonsensical the context. (Gremlins don't care a fig for context.)

Not content with messing around with Mr. Sweeney in 124, the little monsters struck again in his review of the McIntosh in Issue 125, page 81. The correct number for the Water Lily CD *Saltanah*, which he cites as reference, should be WLA-ES-51CD. WLA-CS-47CD is the number for *Bourbon & Rosewater*, also cited in that review. (Okay, okay, Gremlins. That mistake was mine, in the process of editing.) – SR

Price vs. Performance II. If Price Is No Object, What Is?

Editor:

In [Issue 123], you printed my letter. However, I believe my intent was taken slightly out of context with the tile "When Price Can Be The Object." My suggestion to use two pairs of Joule Electra Marquis OTLs to drive the Genesis speakers for the same money as one pair of AtmaSphere OTLs is about the music. Having gone from a single to a bi-amp system myself, my experience has been that a bi-amp system does improve performance. Although you indicated that you do not want to get involved in making price versus performance comparisons between components, I find this at odds with reality in the marketplace. People do consider what musical performance they can acquire for the money they sacrifice, if only because what they save can be more wisely spent on records, trips to the concert hall, or piano lessons. Indeed, Daniel Sweeney's reply to another letter in that same issue states: "The PS Audio 1200 is less than half the price of the Accuphase," drawing a possible price/performance comparison. In fact, you have also made a price/performance comparison, as I recall. I do not remember what issue, but you stated, if memory serves me correctly, that you thought the Merlin speakers sounded good but were pricey for what they were and did right.

PAUL PERSICH
NEW YORK CITY

HP Replies: *This is a most sticky issue. Unless I were a mind-reader (which, given the colorful history of this magazine, I often wish I had been), I could not possibly evaluate how any person would weight the value of similarly priced components, since all components have shortcomings in reproducing or trying to reproduce the absolute. How could I tell which shortfalls you could live with? It is best, I think, simply to point out the shortfalls. Sometimes a component with far fewer colorations, distortions, and the like is priced lower than its more expensive brethren, in which case, we point out the obvious, and that is, of course, a price/performance judgment.*

The Blues in the Night

Editor:

I just read Issue 124, on the recommendation of a friend. I had never before read your magazine. Most of it was over my head. I am in the market for some new equipment. I read several great reviews of different systems. The drawback was that at the end of each there was a reference to the system not being for "rock," "hard rock," "electric blues," etc. It seems that all of the music you use to test this stuff is basically unamplified. Usually it is classical, chamber, jazz, or folk. Robert Harley writes, "Because of these characteristics, this recommended system is better suited to smaller scale music and vocals than to hard rock or electric blues" (page 117). Paul Seydor says, "I think they're just fine on what little rock I listen to; but if you're a real headbanger, you might want to destroy you're hearing with something else" (page 114). Problem is the blues is all I listen to, acoustic from the Twenties and Thirties, and electric from that point forward. The vibe I got from Mr. Seydor is that maybe my music isn't worthy of "audiophile" quality components. Is it? You guys are the experts. My room is my living room and kitchen, which combined are 13 x 40. I want to spend about $3,500 on a set of speakers and an integrated amp. I need help. There are too many choices. Any suggestions? Remember – I listen to amplified music.

MARK NEFF
PITTSBURGH, PENNSYLVANIA

JV Replies: *This letter really touched a nerve with me. Sure, Mr. Neff, your music is worthy of a High End system. The point isn't that your music isn't "musical." The point is that your music (at least in its electrified form) has a lot of mid-to-deep bass information (drumkit, Fender, Hammond B-3, etc.) that won't be reproduced articulately or powerfully by many of the Basement and Downstairs speakers recommended in our feature (which are limited in this regard by their size and driver complement). Given your taste, I would suggest a subwoofered system (a good mini-monitor with a powered sub). You may not be able to achieve the ultimate in driver "integration" going this way, but you will enjoy superior mid-to-upper bass rhythmic clarity and dynamic impact – and that is crucial to "feeling" the pulse of the music you love.*

The LaLa Land of High End Audio

Editor:

Mike Silverton's chagrin at the reviewer's Catch-22 [Last Page, Issue 124] is correct on one point at least: In relation to the escalating prices of High End gear, the market votes. But the High End market is also fickle, punishing, and unconcerned. It is LaLa Land for the "Irrational Exuber-

ance" of the over-enthusiastic and out-of-touch, the spendthrift, the irrational, the uninformed, the confused, and those who have nothing better to do with their money or time.

If the buyer perceives that a component is priced unreasonably high, suggests Silverton, he'll pass. From what I've read in TAS and *Stereophile*, however, many readers complain and are outraged with "unreasonable" prices and with many reviewers' and manufacturers' unwillingness to justify such high prices and over-engineering. Clearly, some readers are sourpusses: They just can't afford High End gear and will deny until the Third Coming that High End is superior. Others, though, see no real value! This is especially true for the experienced traveler who knows that price and sound quality do not always ride the same tracks. One often finds amps, speakers, cartridges, and cables that outperform the high-priced spread…

Moral outrage notwithstanding, many High End components are hand-built, limited-production instruments, and deserve to be priced accordingly.

Should reviewers expound on the worthiness and reasonableness of prices? I think that is a personal matter. I would, and I have, because I am, by profession, an appraiser and a trader: Value has always been integral in my world view. Others may emphasize characteristics other than value. This emphasis, however, benefits only the manufacturer and seller, not the customer. Judgment of value, therefore, is critical for the reader, and the ability to determine value is morally and functionally valuable to commerce and the marketplace – for all goods and commodities.

Seen in this fashion, then, "what the market will bear" is often unfair to at least one person – the buyer, who may be more or less informed. As my father said: "A good business deal is where both parties benefit equally." Balance.

Because readers are also buyers, the reviewer's ability to determine value for what he recommends is a serious responsibility, and, in and of itself, of substantial value to readers. And I say to reviewers: "Guide yourselves accordingly."

Additionally, I say to readers: "Demand of reviewers that they 'value' the component under review against others, and determine its place in the marketplace." Of course, reviewers who have little knowledge of the market price of parts and components, machinery and chassis building, subassemblies, advertising and publicity, and factors relating to manufacturing and marketing overhead, are clearly at a disadvantage. The reader/buyer pays the penalty for that deficiency.

ANDREW G. BENJAMIN
QUEENS, NEW YORK

AGB is a sometime contributor to the pages of The Absolute Sound.

Their Guilty Pleasures: I

Dear Harry:

Among *my* guilty pleasures are Spike Jones' *Dinner Music for People Who Aren't Very Hungry*, and *A Spike Jones Christmas*. [See HP's editorial, Issue 124.] The owner of the summer camp I went to as a young child infected me with Spike Jones fever, causing me to buy his 78s and watch his TV show.

Bob & Ray are another guilty pleasure of mine and I often reflect on *Mary Backstage, Noble Wife, Wally Ballou, Einbinder Fly Paper*, and dozens of other priceless characters and routines. I also fondly remember Homer & Jethro's "I woulda wrote you a letter but I can't spell (Bronx cheer)," and a *Children's Garden of Stan Freberg* (the same summer-camp owner turned me on to Freberg with *St. George and the Dragonnet).*

I still miss your Leicaflex pix.

STUART NORDHEIMER
NEW YORK CITY

Their Guilty Pleasures: II

Dear Harry:

I just finished reading moments ago your editorial about Guilty Pleasures. Your closing remarks about Stan Freberg's magic brought back many wonderful memories of how many hours of guilty pleasure I had listening to him years ago. Do you remember his creation of the character Professor Herman Von Horn, the noted authority on High Fidelity?

PETER MCGRATH
COCONUT GROVE, FLORIDA

HP Responds: *Yes, Peter, and I also remember his other memorable characters, Edna St. Louis Missouri (the authority on Tarzan and the Apes and his influence on Twentieth Century culture, from* Face the Funnies), *Jett Crash, a test pilot (hello, boys and girls, my name is Jett...Crash. I am a test...pilot.) who is selling Puffed Grass (50 million moo cows can't be wrong). Oh, do I remember.*

Arranged by Nelson Riddle

These days, when recorded popular music isn't so much performed as assembled from various tracks, sound engineers have taken the place of arrangers. But there was a time, primarily in the 1950s and 1960s, when certain arrangers had fans of their own and their names on album jackets were an added attraction. Billy May, Gordon Jenkins, Don Costa, Richard Wess (on Bobby Darin's big-band hits, especially "Mack the Knife"), and Quincy Jones (perhaps the last of the line) come readily to mind. The best, however, the most well-known and most highly regarded by his colleagues was Nelson Riddle.

Riddle's distinctive work combines his love for the French impressionist composers, particularly Debussy and Ravel, and his equal enthusiasm for big-band jazz. This unique juxtaposition is a reflection of his childhood. He was born in 1921 in Hackensack, New Jersey. His father, an amateur musician who knew how to play the piano only on the black keys, encouraged young Nelson to accompany him on the trombone, playing (Riddle later said) "such hit tunes of the day as 'Harbor Lights' and 'Red Sails in the Sunset,' which made my toes curl because they were so boring." Simultaneously, his mother and his aunt fostered his interest in serious music. A gift of an old wind-up phonograph came with a large Victor Red Seal disc that had a Debussy piano piece on each side, "Reflets dans l'eau" and "La Cathédrale engloutie." Riddle wore out numerous cactus phonograph needles, listening repeatedly to the way the French composer created effects with tone color as much as melody. Debussy's *La Mer* so inspired Riddle that he studied a copy of the score to try to learn the piece's secrets.

In the end, popular music won Riddle's attention. By age 17 in 1938, he was spending his summers away from home in nearby Rumson, New Jersey, where he played with several "kid bands" and where an up-and-coming arranger, Bill Finnegan, gave him lessons in orchestrating – for example how "to write a chorus of 'Swanee River' for five saxes (2 altos, 2 tenors and 1 baritone)." After a few months, the lessons were interrupted when Finnegan went to work for the Glenn Miller band, but their teacher-student relationship continued on-and-off for the next decade.

Meanwhile, at the age of 19 in 1940, Riddle left home to work with clarinetist Tommy Reynolds' dance band as trombonist and arranger. Soon after, he was traveling with trumpeter Charley Spivak's band, doing arrangements for $5 each ($7.50 if he made a copy of each musician's part). In 1943, he got a partial reprieve from the draft in the Second World War when he joined the Merchant Marine. Working with its band at Sheepshead Bay, Brooklyn, he learned a good deal about writing for strings. Released in 1944, he joined the Tommy Dorsey band, where he learned even more about strings and, equally important, how to get similar effects without strings (Dorsey wanted backup arrangements in case he fired the string section).

Finally drafted in 1945, Riddle spent the remainder of the war working with a military band in Fort Knox, Kentucky. There a bizarre accident forced him to give up the trombone in favor of arranging – a garage door fell on him, knocking out his front teeth. The "pivots" that replaced them made it impossible for him to blow on the trombone without weakening his dental repairs.

A brilliant arranger, like a brilliant movie director or the famous fiction editors of the Golden Age of American letters, helps form the artistic identity of the musicians he works with. Nelson Riddle's distinctive arrangements for Sinatra, Nat King Cole, Peggy Lee, Judy Garland, Rosemary Clooney, are part of what we love in these great singers.

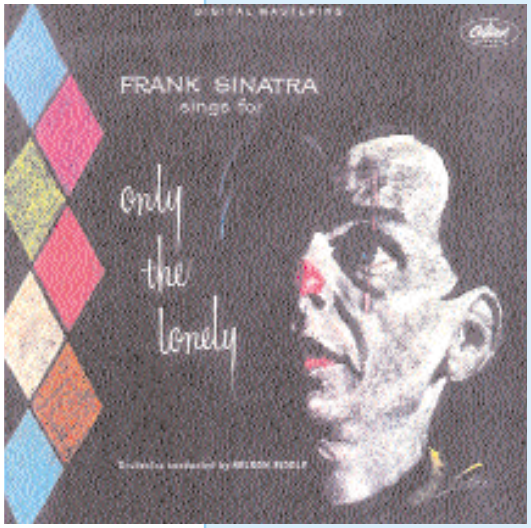
In 1946, he moved to Los Angeles to work for singing bandleader (and Dorsey alumnus) Bob Crosby. A subsequent job as a staff arranger for NBC radio gave Riddle the time to study string orchestration with the Italian composer Mario Castelnuovo-Tedesco. Simultaneously, he studied conducting with Victor Bay, an alumnus of Russia's St. Petersburg Conservatory and the string section of the Philadelphia Orchestra. But no matter how skilled Riddle was becoming, his career needed a boost, an assignment that would get him noticed, not to mention better-paying work so he could support his growing family.

That opportunity came in 1950 when Les Baxter, in charge of an ambitious Nat "King" Cole project, subcontracted Riddle (who was then 29) to write an arrangement of a song called "Mona Lisa." For years, Baxter took credit for that arrangement, along with those for "Unforgettable" (1950) and "Too Young" (1951), but eventually Riddle received his proper due. Cole, who had started his career as a virtuoso jazz pianist, was by 1950 drifting from his origins. Partly out of bitterness for the way some segments of America discriminated against him, he was determined to make as much money as he could, and one way to do that was to record lushly orchestrated ballads that appealed to audiences, especially women, regardless of his race. "Mona Lisa," a love song about the famous painting, was especially suited for Cole's intimate, throaty, resonant voice.

The way Riddle treated the song, however, is astonishing, for he backed Cole only with a mandolin and a string section. No rhythm section. No drums. No bass. And most astonishing of all, given that the piano was Cole's trademark instrument and is used in virtually every other arrangement in his career – no keyboard. The strings provide vibrant fills behind Cole's hypnotic voice, but with no overt rhythm, the effect is almost as if he is singing a cappella.

When word spread about what Riddle had done, more work came his way, much of it from Cole himself who, until 1960, used Riddle as musical director and an arranger of more than 250 recordings, not to mention as arranger for his TV show. Their most intriguing album is 1955's *The Piano Style of Nat "King" Cole*, in which Cole concentrates exclusively on playing the piano with a large orchestra. Half the tunes are slow, half up-tempo. Some sound bland, but most have the feel of jazz, and in all of them, Cole uses the piano as if it were his voice, while Riddle backs him superbly. The album sold barely a copy, however, which may be why, for most of their association, Cole cared less about theme albums and more about singles. While the arrangements for the break-out hits "Mona Lisa," "Unforgettable," and "Too Young" are memorable, Riddle's work for Cole soon became formulaic, with oversweet strings and piano supporting Cole's make-no-waves, bland, balladeer persona.

Those singles earned a lot of money for Capitol, and its executives looked for other ways to use Riddle. In 1953, they decided to pair him with a once-famous singer whose public had turned against him when he left his wife and children for a glamorous movie star. Almost unemployable, Frank Sinatra needed an image change, and the arranger first chosen to help him was trumpeter Billy May, whose



Riddle in Recordings

Nelson Riddle was a Gerald Moore for popular singers, his instrument not just a piano but a full orchestra and most combinations of instruments in between. Unlike Moore, he was never an accompanist only, but a kind of "secondary" composer, his charts filled with countermelodies nearly as beguiling as the melodies themselves. I've often thought it was the particular achievement – perhaps even the sly joke – of his most famous original composition, the "Route 66" theme, that it sounds less like a theme than a countermelody in search of a theme.

So many albums in which Riddle participated are out of print (or in that limbo called "out of stock," meaning listed in print, but effectively unavailable) – most of his recordings *sans* singers, and his superb Academy Award winning score for *The Great Gatsby* – that the following list cannot be definitive. But several of these albums are essential and all contribute to a richer appreciation of the art of this remarkable musician.

Sinatra It is sobering to think that if Capitol Records had been as adventurous as RCA in embracing the new medium of stereo in the mid-Fifties, some of the greatest albums of popular music scored by the greatest arranger for the greatest singer would be in stereo. Not that there's much wrong with the monophonic reproduction on such classics as *Swing Easy* [72434-96089-2-4], *In the Wee Small Hours* [72434-94755-2-6], *Songs for Swingin' Lovers* [72434-96226-2-3], and *Close to You* [72434-CDP7-46572-2]: vibrant, colorful, exceptionally clear and dynamic, nothing except that stereo would be better, as is readily demonstrated by *Only the Lonely* [72434-94756-2-5], one of the rare popular recordings that actually sounds "realistic," that is, reproduces the effect of a singer standing in front of a large orchestra spread out behind him. The chamber album, *Close to You*, featuring the Hollywood String Quartet and perhaps the most path-breaking of all the Sinatra/Riddle collaborations, is no longer available, which I hope means that it is due for re-release in Capitol's inexplicably stalled 20-bit remastering of all its Sinatra material.

Much of the Riddle/Sinatra Reprise work I find competent rather than inspired, a notable exception being *The Concert Sinatra* [Reprise 9 47244-2] from 1963, which can stand with the best of the Capitol years in concept and execution (containing Sinatra's tour de force "Ol' Man River"). At the time it was promoted as a sonic spectacular owing to the use of the Westrex 35mm recording system. Unfortunately, the LP sounded harsh and congested. According to Charles Granata's *Sessions with Sinatra* (1999), the original 3-track tapes were spectacular, but something went amiss in the mixdown that was never corrected. The original masters seem to have been

dance-band hits made his name familiar to record-buyers. But May's success put him on a performing tour while he was supposed to be in the recording studio with Sinatra, so for a second fateful time, Riddle was subcontracted to do the work. The agreement was that Riddle would arrange two singles in the style of May ("South of the Border" and "I Love You"), along with two in Riddle's own manner ("I've Got the World on a String" and "Don't Worry 'Bout Me"). With their raucous brass and slurpy saxophones-in-unison, the first two sounded enough like May to fool the musicians, but there is no mistaking that the arrangements for the second two are by someone else entirely.

The bright trumpets and joyful rhythm of "I've Got the World on a String" (indeed the song's title itself) were an announcement of Sinatra's comeback. But the gem of the session and the indication of where Riddle's genius would lead is the arrangement for "Don't Worry 'Bout Me." From the Capitol years onward, Sinatra wanted most of his arrangements to have a story-like construction: Introduce the piece, establish its theme, build to a climax, and then trail off. This approach contrasts sharply with the unmodulated arrangements that Axel Stordahl wrote for Sinatra during his previous Columbia years. It also contrasts with Riddle's similarly unmodulated work for Cole's singles.

Riddle's approach to "Don't Worry 'Bout Me" was based on what he'd learned from the French impressionist composer, Ravel, whose "Bolero" is famous for its accumulating intensity. In an unusual choice for an arranger known for his melodic introductions, Riddle decided against an instrumental opening. Instead, he begins directly and minimalistically with Sinatra's voice, which is immediately joined by mellow saxophones. A guitar strums in time with a bass. A piano tinkles in the background. The saxes stop. Trombones take over. The trombones stop. Muted trumpets take over. Except for the piano and the rhythm section, no instrument plays simultaneously with another. The rhythm section consists solely of the guitar and the bass. No drums. Then suddenly, as the song's 32 bars come to a gentle close, we hear a subtle ding-ding of cymbals in the background. Having been silent from the beginning, the drummer now comes dramatically into action, joined by every instrument – saxes, trombones, no-longer-muted trumpets – playing for the first time simultaneously and exuberantly. It's a huge effect after the quiet control that came before. With equal suddenness, after eight bars, the drummer stops. The instruments return to playing in sequence rather than overlapping. The bass and the guitar again act as the rhythm section. Regaining the control it had at the start, the arrangement comes to a subtle close.

"Find the peak of the song and build the whole arrangement to that peak," Riddle said. When the singer has something to do, "get the hell out of the way. When he's doing nothing, move in fast and establish something." This approach is nowhere more evident than in the 1956 arrangement that is widely considered Riddle's best, certainly his most famous, and arguably the greatest arrangement for any American song: Cole Porter's "I've Got You Under My Skin" (from *Songs for Swingin' Lovers!*). There, Riddle again uses Ravel as his model, and again a trick with the rhythm section achieves the arrangement's major effect.

Rhythm. Riddle enjoyed songs that had the rhythm of the heartbeat, a pace that he associated with sex (just as the structure he preferred can be described as foreplay, climax, and afterplay). Certainly it is the rhythm of "I've Got You Under My Skin" that we first notice – a light, bouncy, play-

lost, as the 20-bit remastering isn't much of an improvement. (See "Sound of Sinatra," Issue 120.)

Ella Fitzgerald Sings the George and Ira Gershwin Songbook [Verve 314 539 759-2] is sonically and musically the high point of the Ella/Nelson collaborations (some of these songs never better realized), all in early Verve stereo: astonishing clarity, definition, and transparency, wonderfully atmospheric with first-class digital remastering and packaging.

Rosemary Clooney was the revelation of this assignment for me, rediscovering one of the really great popular singers. All three of these albums can stand easy comparison to the best of Riddle's work with Sinatra; and like Sinatra's Capitol albums, *Rosie Solves the Swingin' Riddle* [Koch KOC-CD-7991] and *Love* [Reprise 9 46072-2], both dating from the early Sixties, are also built around tight concepts. *Swingin' Riddle* is in early stereo, which is to say that while the vocalist is focused in the center, the instrumental separation is a little exaggerated; still, the recording captures all the vitality of an absolutely terrific collection. The string-colored *Love* is an altogether more muted recording, separation still exaggerated but with lovely sonorities, the strings especially sweet-toned. The fragile lightness of Clooney's reading of "Someone To Watch Over Me" and the delicacy of Riddle's instrumentation are enough to make you catch your breath. Twenty-five years after this collaboration and ten years after Riddle's death, Clooney returned to Capitol Studios in 1995 and recorded *Dedicated to Nelson* [Concord Jazz CCD-4685], a tribute to her best arranger and former lover, using his painstakingly reconstructed arrangements. Every cut on this marvelous album is special; but go to "Limehouse Blues," which Clooney owns lock, stock, and barrel, to hear how effortlessly she and Riddle bridge the worlds of pop and jazz. The reproduction is close to state-of-the-art digital: superclean and smooth, with superbly delineated textures that yet don't feel coldly analytical, and excellent presence and warmth to Clooney's voice.

Peggy Lee is a superb singer, even if she does apply her laid-back approach rather indiscriminately (how does she manage to be *restrained* on "Something Wonderful"?). No matter, this two-fer (only *The Man I Love* part is by Riddle) is required listening not just for Lee's singing and Riddle's charts, but for the conductor, the Chairman of the Board himself, who is unusually sensitive to the needs of his singer (all the more impressive when you consider how different a singer she is from him). Observe how carefully Sinatra shades the orchestral dynamics around her soft, pastel readings; no doubt Riddle's careful arrangements were helpful, but they couldn't have done it all. Vintage Capitol mono sound [*The Man I Love/If You Go.* EMI 7243-8-55389-2-6].

The Piano Style of Nat King Cole [Capitol CDP-0777-7-81203-2-2, mono] is highly regarded by some; in the liner notes (written with Dick Katz), the admirable Will Friedwald tries his best to advance its strengths and minimize its weaknesses. But once Cole left jazz for popular music, his playing acquired a kind of "easy listening" patina that in my view it never lost. This album teeters too much between superior cocktail-lounge jazz and background music, while Riddle's arrangements don't exactly hold thoughts of Percy Faith at bay. The over-miking of the strings doesn't alleviate this impression.

Oscar Peterson & Nelson Riddle [Verve V-6 8562, the cat-

ful, moderate tempo that is established with a four-bar introduction in which a bass, a saxophone, muted trumpets, and a piano (possibly in unison with a harp) play off each other. A version of that introduction is repeated as Sinatra enters, strings gradually joining him. While the arrangement is intricate, it is never crowded. Riddle doesn't go to the extreme of keeping the instruments separate, one group never playing over another as he did in "Don't Worry 'Bout Me," but the effect is the same. Even when one group of instruments does overlap another, the two feel separate. As the first verse ends and the second starts, he repeats the pattern, with saxophones replacing the trumpets, slightly increasing the volume as if the instruments want to break loose but something is holding them back. The saxophones continue into the bridge, pulsing but in control. An alternate verse concludes the song, the orchestra seeming to grow and get louder.

Now comes the miracle. One of the puzzles about this arrangement is how a song so moderately paced can keep building until it feels as if it's being played at double the time while the basic tempo remains the same. The effect is accomplished with the bass, which throughout the first part of the arrangement emphasizes two beats in a four-beat bar. When the arrangement finally builds to its peak and Riddle introduces the blaring trombones which he's been holding in reserve, the bass suddenly switches to a very solid four beats per bar. Meanwhile, as in "Don't Worry 'Bout Me," the trumpets (unmuted) and the saxophones play simultaneously with the trombones, with such intensity that the musicians seem in danger of blowing their brains out. Sinatra reenters and supplies his own intensity, building and building until, at once, the arrangement resumes the quiet, gently pulsing manner it had at the start, the bass returning to two beats per bar. Strings end the song almost with a sigh.

While Ravel is the primary influence, a second is the big-band part of Riddle's musical passions. Given a short time to write the arrangement and stuck for a way to handle the all-out climax, Riddle phoned his trombonist friend, George Roberts, who suggested using the trombone-based Afro-Cuban rhythmic pattern from the 1952 Stan Kenton recording *23 Degrees North – 82 Degrees West* (the latitude and longitude of Havana, Cuba), written and arranged by William Russo. Riddle took the idea and made it his own. The sound of the trombones is similar in both pieces, but the nature of the two compositions *(23 Degrees* is Latin) takes them in vastly different directions. Roberts, who participated in the Kenton session, also worked on "Skin" but didn't get to do the famous trombone solo in Riddle's arrangement, that honor going to Milt Bernhart. Twenty-two takes were needed to get the piece done properly. When the session was finished, the musicians paid Riddle the rare compliment of applauding.

Riddle and Sinatra collaborated on 15 albums, several movie soundtracks, numerous television shows and concerts, and so many singles that they fill a crowded four-CD set, *Frank Sinatra: The Complete Capitol Singles Collection.* Their favorite album together was *Only the Lonely* (1958), a collection of ballads in which Riddle expanded the saxophone section and used the "misty, velvety" French impressionistic feel of two flutes, two oboes, two clarinets, and two bassoons. Their most experimental album was *Close to You* (1957), another collection of ballads in which a small subtle rhythm section backed the Hollywood String Quartet in what amounts to popular chamber music. Here again, Riddle used combinations of instruments to create a mood, each song tending to have a different instrument (oboe, clarinet, flute) enhancing the quartet.

While Riddle's work with Sinatra is what he's most known for (see Will Friedwald's *Sinatra! The Song Is You* and Charles L. Granata's *Sessions with Sinatra),* there were numerous other major singers with whom Riddle collaborated. In 1956, the same year he arranged "Skin" (he was 34), he did an album with Judy Garland called *Judy*, and followed it two years later with *Judy in Love.* An arranger always has to keep in mind the persona of the singer. Garland's parents were minor vaudeville performers, who trained her in that tradition. Her model was Al Jolson, and her instinct was to belt out songs so that someone in the theater's back row would pay attention. Thus, some of Riddle's work on *Judy* is generic big-band support ("April Showers"). Only when she pays attention to the nuances of

along number of the LP, never remastered for CD] I list in the hope that Verve will be encouraged to dust it off via one of their superb remasterings. The very conception here seems an oxymoron: How do you arrange jazz, which is improvisational, for anything, let alone an orchestra, which needs a written-out score? Riddle and Peterson brought it off somehow. This is Riddle's most Ravel-influenced work since *Only the Lonely* and *Close to You*. Indeed, the first cut, "My Foolish Heart," suggests a lower-case, Americanized *La Valse*, the ghostly ballroom shifted from Vienna to Atlantic City during the war. Differently impressive is "Someday my Prince Will Come": Riddle lays down a string-colored bed (with brass accents) that keeps the melody present while Peterson does arabesques above it; the brass gets ever more aggressive until, when it becomes clear the pianist will not be ruffled, soloist and orchestra jointly bring the piece to an abrupt halt. No wonder Peterson singled this cut out for special praise. My LP, acquired used, is in poor condition, nor is it an original pressing; but it is in self-recommending vintage Verve stereo. Verve, JVC XR, Classic Records, *someone* should reissue this ASAP.

Route 66: That Nelson Riddle Sound [Telarc DSD CD-80532]: I wonder what Riddle would have thought of his current high-reputation among the cognoscenti or this Telarc tribute to his arrangements, tweaked so that instrumentalists replace vocalists? As an experiment, it's off-center rather than offbeat, Eric Kunzel, his Cincinnati Pops "Big Band" Orchestra, and a stellar group of jazz instrumentalists managing to make a crackerjack show of it. The only piece that doesn't work is "I've Got You Under my Skin," because Sinatra's voice is so indelibly associated with both the song and this particular arrangement. Otherwise, it's entertaining stuff, concluding with Riddle's signature *Route 66*. I'd recommend it even if it had it been brought off less well, because for the first time Riddle's orchestrations are accorded state-of-the-art sound. Telarc has been turning out one splendidly recorded CD after another lately, Cincinnati an especially rewarding venue. What a pleasure to hear a popular orchestra recorded like a good classical one: slightly set back, lots of air, a true soundstage with soloists and concertante-like sections emerging from a sustained wholeness of perspective. Of course, no amount of superior reproduction can supplant the original arrangements with the singers for whom they were written, nor is that the intent. But if you want to hear the Riddle sound recorded clearly enough to be able to transcribe the charts by ear, and have a high time along the way, this is a good place to start.

PAUL SEYDOR

the lyrics, as in "Memories of You," is Riddle able to provide a distinctive background. His favorite arrangement on that album was a double-time version of "Come Rain or Come Shine," with bongo drums driving the rhythm. The experiment dates the arrangement, but once the listener adjusts, the device is effective. The pace of the song was too taxing for Garland, so instead of singing live with the orchestra, she performed with recorded tracks. The semi-submerged arrangement "killed a great deal of the drive and excitement," Riddle felt. In the second album, *Judy in Love*, she is much more in control, providing sensitive interpretations ("More Than You Know") that give Riddle room to work his magic. In his effort to find a fresh way to arrange "Day In – Day Out," however, he blends cha-cha rhythms with those of jazz and produces a schizoid arrangement that's one of his oddest. These two albums are almost impossible to find. The best way to get a sense of them is to play *Spotlight on Judy Garland* [Capitol CDP 7243 8 29396 2 7], which includes five songs from *Judy* and four from *Judy in Love.*

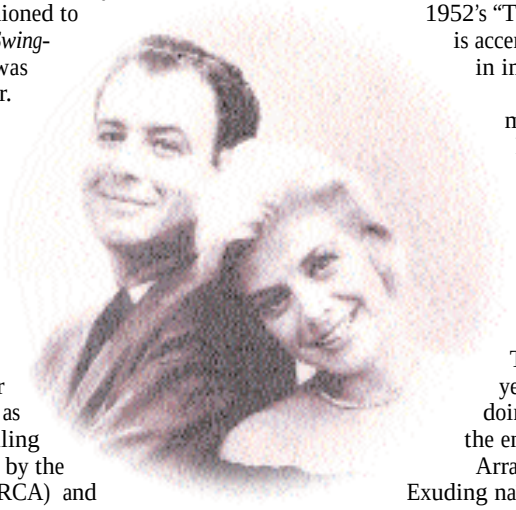
In 1957, between the Garland albums, Riddle did a quite different, more satisfying, and artistic album with Peggy Lee, called *The Man I Love.* It's an indication of how strongly everyone felt about the project that Sinatra agreed to help publicize it by putting his name on the album as the conductor of the sessions. According to musicians who were there, Sinatra was more skillful than expected at the podium. Indeed, a year earlier he had commissioned and conducted *Tone Poems of Color,* in which various composers wrote mini-suites inspired by the color poems of Norman Sickel. Riddle had written two of those pieces, "Gold" and "Orange." It couldn't have escaped him that "tone poems of color" is a way to describe French impressionist music. Certainly, "Gold" has an accumulating intensity borrowed from "Bolero."

Now, on Lee's *The Man I Love*, Riddle had a chance (even more than on *Close to You)* to arrange an entire album impressionistically. No matter how large the orchestra, his music seems buoyant, always rising. He achieves this lightness by carefully positioning his categories of instruments so that some form a base upon which others float. Thus trombones are lifted by saxophones, which in turn are pulled up by muted trumpets. Above them hover the piano, the flutes, the strings, and the harp, always coming in whenever an arrangement threatens to become heavy. At the same time, Riddle was careful not to orchestrate at the singer's pitch. Fills occur above and below that pitch, but the middle is left open for the singer, which is one of the reasons that Riddle's arrangements never feel congested.

On *The Man I Love*, these elements come together in a sequence of ballads that feature some of the most colorful orchestrations that Riddle ever wrote: oboes, harps, flutes, cornets, chimes, a lush string section, and a delicate horn section. It's so satiny and multi-toned that it almost tempts the listener to smoke dope. Lee's voice is itself multi-toned, her whispery confiding cadences filled with multiple resonances. Listeners familiar only with her finger-snapping renditions of songs like "Fever" will be surprised by her delicacy as she interprets what amount to dramatic monologs about a woman's complex relationship with a man: "Happiness Is a Thing Called Joe," "He's My Guy," "If I Should Lose You," "There Is No Greater Love." It's difficult to overpraise the album.

No discussion of Riddle's work can avoid his relation-

ship with Rosemary Clooney, with whom he had a romance in the late 1950s. He was the arranger for her 1956-57 television show and collaborated with her on a collection of standards, *Rosie Solves the Swingin' Riddle!* This was a departure for Clooney, whose early career was based on novelty tunes like "Come On-a My House" (1951) and "Botch-a-Me" (1952) as well as a series of successful children's albums. Her pairing with Bing Crosby in 1954's *White Christmas* typifies her cheerful, likable, wholesome persona. But in 1955, she married José Ferrer, a domineering egotist with whom she had five children in the next wearying five years. Simultaneously, she began to seem old-fashioned to contemporary audiences. *Swingin' Riddle* (1960), it was hoped, would reinvent her. Unfortunately, her beaming wholesome persona makes the material ("Get Me to the Church on Time" and "Shine on Harvest Moon") sound so corny that even Riddle's usually hip arrangements suffer.



Their second album together, *Love*, was another matter. Recorded in 1961 as Clooney's career was falling apart, it was never released by the company that made it (RCA) and appeared only in 1963, thanks to Sinatra and his new company, Reprise. This album features a quite different Clooney. Not only her career but her relationship with Riddle was collapsing. As she faced her soon-to-be-ex-lover who conducted some of his most loving arrangements (especially "How Will I Remember You"), she somehow managed to sing while tears streamed down her face. Despite over-bright sound reproduction, the heartbreaking emotion on this set of ballads is palpable. The most interesting orchestration is for "Black Coffee," which combines a low string section with a bassoon, adding a guitar for good measure. But despite its inventiveness (the major tone-painting influence was Ralph Vaughan Williams), *Love* found no audience in the changing pop culture of the 1960s.

The pills and alcohol to which Clooney had become addicted led to a nervous breakdown during a performance in Reno, Nevada, in 1968. Her career and perhaps her life would have ended if not for the encouragement of Carl Jefferson, founder of Concord Records. It was Jefferson's idea that, beginning in 1977, Clooney would do an album a year for the label. Thus the reinvention that she had hoped for in 1960 finally occurred. By now, her once-smiley voice had thickened and weakened, evoking sadness and hard years that gave her interpretations authenticity, the readings amazing depth. In 1996, long after Riddle's death, she recorded *Dedicated to Nelson*, a tribute based on transcriptions of arrangements (the pages now lost) that Riddle had written for her mid-Fifties TV show. One, "Come Rain or Come Shine," will sound familiar to anyone who knows Judy Garland's first Riddle album. Pressed for time, he wrote basically the same double-time bongo-driven arrangement for Garland that he had earlier written for Clooney's TV show.

Throughout the 1950s, Riddle worked with other singers: Billy Eckstine (his ten-inch 1952 tribute to Rodgers and Hammerstein is said to be wonderful, but I can't find its title, let alone a copy of it), Margaret Whiting, Dean Martin, Jerry Lewis, Dinah Shore, Keely Smith (the Collectors Choice "Politely Swingin'" is recommended), Johnny Mathis, Mel Torme, on and on. An undiscovered treasure is the work he did for once-famous but now-forgotten Ella Mae Morse, who had a voice like Patsy Cline and who combined delightful big-band blues with country and boogie-woogie. See *The Very Best of Ella Mae Morse*, for three hits Riddle arranged for her, including 1952's "The Blacksmith Blues" in which a big band is accented by a drum key hitting a glass ashtray in imitation of a hammer on an anvil.

Except for Sinatra, though, no singer is more associated with Riddle than Ella Fitzgerald. Norman Grantz, Fitzgerald's manager and the founder of Verve Records, decided that Fitzgerald should do various albums celebrating the work of American songwriters. The greatest of these was *Ella Fitzgerald Sings the George and Ira Gershwin Song Book*. Originally it was a five-LP set and is now on four CDs. The 1959 project involved 59 songs. And yet, in spite of all the other work Riddle was doing, he managed to find ways of making the entire 59 never repetitive or weary.

Arranging for Fitzgerald had its challenges. Exuding naïvety and good-nature, she has no persona except that of a wonderful musician. As a consequence, cynical or sex-laden lyrics don't sound authentic. Her musical phrasing and the quality of her voice are solely what we care about. But while many singers remind us of an instrument, Fitzgerald has a chameleon's ability to sound like numerous instruments. Thus it was difficult for Riddle to achieve his customary lightness by placing the orchestra above and below her voice, leaving her own register open. Because she had a range of almost two-and-a-half octaves, he couldn't avoid placing instruments at her pitch. But his arrangements for her don't feel crowded because he switched to a different tactic and relied on the buoyant effect of the phenomenon of bell tones. Put simply, if you play a sequence of octaves on a piano, holding them so that they build on one another, their combined resonance will cause sympathetic vibrations in the higher octaves, although those higher octaves haven't been struck. Riddle often achieved these "phantom notes" by playing different instruments in unison (a harp and a piano, for example) octaves apart. The combination produces a new note that is lighter and with a different color from the two notes played separately. The Fitzgerald-Riddle album that most relies on this technique is *The Johnny Mercer Song Book* (1965).

Riddle also did a Jerome Kern song book with Fitzgerald (1963), this one emphasizing stereo effects, parts

Pictured: Riddle with Clooney; Fitzgerald

of the orchestra speaking to each other from the right and left. Between the song books, he collaborated with Fitzgerald on two other albums: the Grammy-winning *Ella Swings Brightly with Nelson* (1962) and *Ella Swings Gently with Nelson* (1963). The first is as advertised, a delightful example of Riddle's famous rhythmic bright style. But the second, much of which was recorded in the same sessions as *Brightly*, is so gentle as to make a listener feel on Prozac and creates a suspicion that Riddle might have been weary from too many projects.

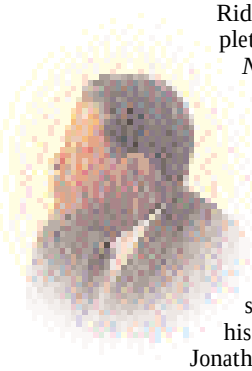
Certainly he had plenty to do. In 1963, he arranged his favorite album, *Oscar Peterson and Nelson Riddle* (alternate title: *That Special Magic).* An extension of *The Piano Style of Nat "King" Cole* (Peterson was greatly influenced by Cole's technique), this album takes advantage of Peterson's classical training to produce symphonic jazz. A combination of five flutes, five horns, ten cellos, and a harp create what Riddle called a velvet cushion for Peterson's remarkable piano sound. Peterson's long-time trio members, drummer Ed Thigpen and bassist Ray Brown, are most welcome here. Riddle's favorite selection was "My Ship," which was "played more slowly than most people would consider tasteful," he said, permitting "Oscar to weave a spell the likes of which I've seldom heard." (This masterpiece has long been out-of-print, but a good place to look for copies is As The Record Turns, 1-323-466-8742.)

Meanwhile, Riddle also wrote music for the TV shows "The Untouchables," "Naked City," and most important, "Route 66" (1960-64), a Jack-Kerouac-influenced drama about two young men in a Corvette in search of America and themselves. For that show, Riddle composed a new theme every week, in addition to the pulsing-piano title melody that became a Top 40 hit for him in 1962, one of the few since his million-copy single, "Lisbon Antigua" in 1956. He went on to be musical director for "The Smothers Brothers Comedy Hour" and "The Julie Andrews Show." All told, he scored some 30 films, including *The Pajama Game, High Society, Pal Joey,* and *Guys and Dolls*, eventually receiving an Academy Award for *The Great Gatsby* (1974).

Far from feeling gratified by his achievements, Riddle, worn down by overwork, suffered from almost chronic discouragement and low self-esteem. He was especially depressed that he never achieved the financial success of Henry Mancini. These days, arrangers negotiate for residual payments, but during Riddle's prime, arrangements sold for a one-time fee. It has been estimated that he got around $150 for his arrangement of "I've Got You Under My Skin." Nat "King" Cole used his $52 "Mona Lisa" chart so often that Riddle calculated his pay averaged out to less than one cent per performance. Even when Riddle won the Oscar, he found a way to see the dark side, claiming that producers no longer wanted to hire him because they thought that his fee would now be higher.

His career was in limbo when in the early Eighties Linda Ronstadt asked him to write some Sinatra-style arrangements for an album on which she diverged from rock-and-roll and sang standards. (A similar cross-over project involved the opera singer Dame Kiri Te Kanawa: *Blue Skies*, 1985.) The Rondstadt collaboration was so commercially successful, it extended into three albums: *What's New* (1983), *For Sentimental Reasons* (1984), and *Lush Life* (1986). But one can only imagine Riddle's dismay as he listened to the singer take a week to record snippets of tracks that would have taken Sinatra a couple of hours, live, without resorting to tape splices. Rondstadt attacks the songs so loudly that she almost shouts, while constantly going flat and allowing her vibrato to wander all over the place. Ironically, Riddle's association with this inferior project brought him the financial success he craved, for instead of a flat fee, he earned royalties, and the first album alone sold more than three-and-a-half-million copies.

By the time the last Rondstadt-Riddle album was released, Riddle was dead. Although he didn't abuse alcohol, in 1980 he'd had an operation for liver problems. In 1985, the liver problems returned and killed him. He was only 64.

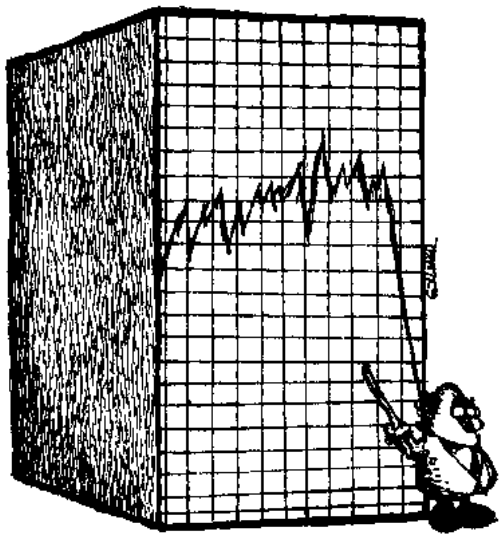


Riddle survived long enough to complete a definitive textbook, *Arranged by Nelson Riddle*, from which many of my observations about his techniques are taken. It's hard to find, but musicbooks.com has copies. When his family went to his office to gather his belongings, they found a new arrangement that he'd been writing for Sinatra. Perhaps he achieved a measure of satisfaction when, not long before his death, he attended a party that Jonathan Schwartz gave to celebrate the renewed interest in Riddle's work. From a stereo, "I've Got You Under My Skin" filled the room. Everyone turned and applauded.

DAVID MORRELL

Pictured: Riddle; Peterson

What's Wrong With Loudspeakers



People who design, review, or even just buy loudspeakers worry often and about many things. But sometimes they don't worry about things they should worry about. Here are some problems with speakers and their performance in rooms that seldom receive the attention they deserve, or in some cases, any attention at all. Their existence is a matter of fact. Whether you will think they are really important – well, you need to think, experiment, and most of all listen for yourself.

1. Speakers are not smooth enough in the top end.

A smooth, flat top end has been a nominal goal of audio for so long that it might seem boring to mention it. But the advent of digital EQ devices like the Z-System's rdp-1 has made it possible for the first time for everybody to check out what is really going on here. Before, we could only compare different speakers or different crossover adjustments in the same speaker. Now we can make specified small changes of frequency response in a fixed speaker and see what happens. The rdp-1 will let you punch in and out peaks and dips as small as 0.2 dB and of varying widths ("Q" factor). Trying this out with pink noise is startling. The +/- 0.2 dB changes are quite obvious, especially in the region of maximum hearing sensitivity centered around 3 to 4 kHz, from 1 to 10 k, say. And the kinds of errors that tweeters, even quite good tweeters, typically make, on the order of +/-1dB, are gross. On music's ever-changing signal, it takes longer to hear the effects. But you'll get there. And once you have heard what music sounds like with the peaks in your tweeter massaged out by DSP, once you have heard the marvelously relaxing and beautiful sound of a truly smooth top end, you won't want to go back. The best tweeters nowadays are good, but even the best can be made a little better. And others are really in need of help, or replacement (bad ones cannot be fixed even by the DSP). We have all lived too long with abuse where our ears care the most. And +/-1 dB is not good enough, not when +/-0.2 is so easy to hear.

2. Speakers are too noisy.

When a speaker has no input, it is silent, so we tend not to think of it as a source of noise in the sense that a hissing preamp is. But as soon as a speaker gets an input signal, it starts doing things it shouldn't and starts making noise, not just the music it should be making. Cones and surrounds flexing, mechanical structures vibrating, cabinets flexing in unpredicted and unpredictable ways, air flowing turbulently, electrostatic diaphragms vibrating chaotically on the scale of small areas even if they are moving regularly on a large scale, such sources of noise are everywhere. You can see all this in the chaotic tail ends of "waterfall" plots, after the big signal and the resonance ridges have decayed. You can see (and hear) it in the decay of the sound if a large signal input to the speaker is suddenly switched off. And you can see it in the "spectral noise contamination test," devised by the late Deane Jensen and Dr. Gary Sokolich, in which the input is a number of sine waves at spaced frequencies that are notched out of the measuring mike pickup signal, leaving the noise exposed as a broad-band, lower-level signal. (This test is available commercially in the Sys/Id software.)

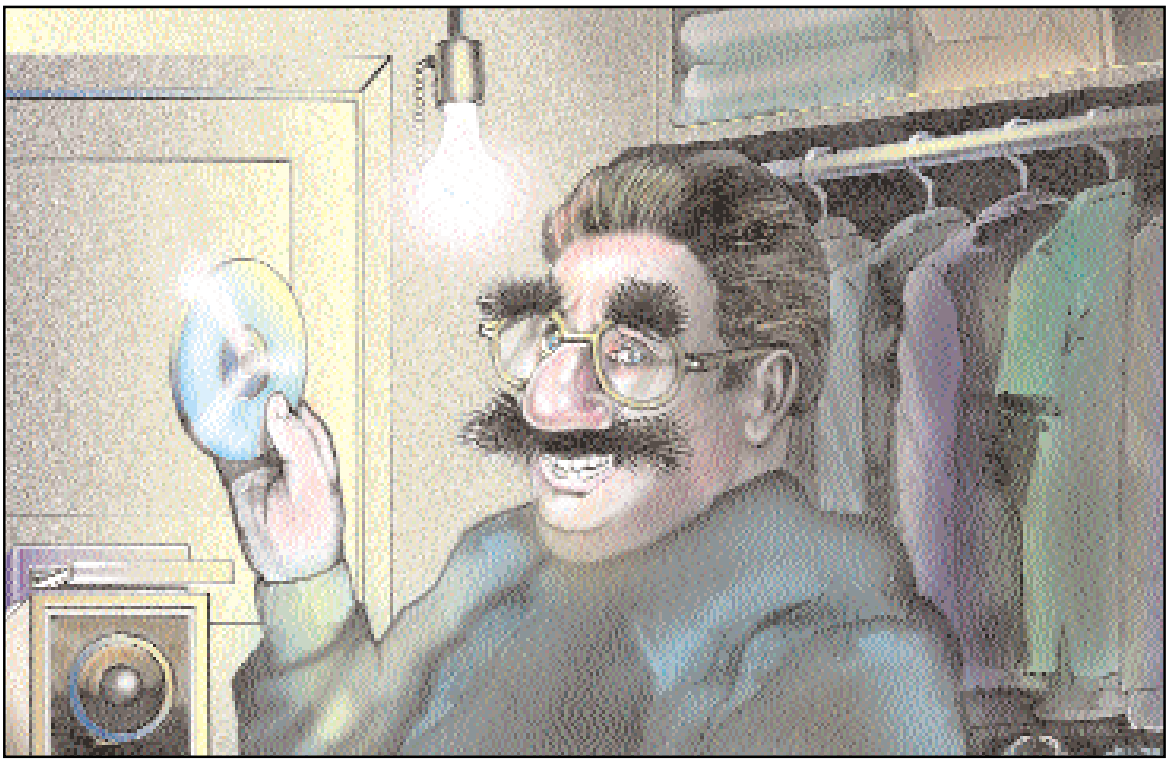
How much noise are we talking about here? A lot, a whole lot by the standards of noise levels in electronics and recording systems. Speaker noise appears only 20 to 30 dB down from signal in some cases, and even the cleanest speakers I know do not get the noise down much more than 55 dB or so. (See my review of the Mordaunt Short MS30, Issue 103, for a discussion of what happens in a good situation.) In a world where we worry about noise products in electronics 80, 90, 100 dB down, maybe we should worry a little more about the noise of speakers that is much louder than that.

3. Speakers are not flat enough in rooms from the midrange down.

This is a familiar problem I have mentioned often, especially in terms of using digital-signal processing to correct it. (See my review of the SigTech, Issue 113; Accuphase, Issue 120; Tact RCS, this issue.) Still, it is shocking to measure the actual performance of systems whose owners are assuming that because their speaker is anechoically flat, it will be reasonably flat in-room. All you have to do is to look at in-room response curves to see what an illusion this usually is. Try it yourself, with warble tones and an SPL meter (even a non-calibrated inexpensive one will be sufficient to reveal the gross problems that usually occur). Remember how sensitive the ear is to response errors, and be appalled. If you can get +/-2 dB from 1 kHz on down to about 40 Hz, count yourself wildly lucky. And then remember that that is nowhere near flat enough for perfection in audible terms. Without DSP correction, it is nearly hopeless to expect reproducible high fidelity in any reasonable sense. Lest we forget.

ROBERT E. GREENE

I am indebted to Richard Black, Ole Christensen, and Jorma Salmi for their comments on these subjects, and to Black for sharing his as yet unpublished noise measurements. – REG



Guilty As Charged

HP asked the music writers to send us something on those musical selections they adore but play only in secret – their Guilty Pleasures. (HP himself started the series in his editorial in Issue 125.) Well, plainly, we touched a nerve – you could almost feel *the writers blushing! Some couldn't believe that we'd believe they'd be a little shamefaced about anything they listened to. All their pleasures are on the up and up, how dare we hint otherwise? Others – well, the list here is short, so* somebody's not confessing*…*

ANDREW QUINT

Love at the Movies. Michael Chertock, pianist. Telarc CD-80537

Eminem: *The Marshall Mathers LP.* Aftermath/Interscope Records 069490629-2

Here's a paranoid thought. What if my editors are just setting me up? What if I'm actually the *only* writer being asked to admit to potentially humiliating musical fetishes? It would be rather like a moonlit night at the lake when someone suggests skinny-dipping and, five minutes later, you emerge from the bushes to find you're the only one who is naked. Well, I'll just have to take my chances, for my path as a record collector is littered with guilty pleasures. I even mentioned one as such – Mercury's *Balalaika Favorites* in Issue 124's best-sounding recordings feature. And that's just one indiscretion among dozens, maybe hundreds. How about the time I mortified my 16-year-old daughter by playing Crash Test Dummies ("Mmm Mmm Mmm Mmm") to show off my system to a dozen of her friends (who, it turns out, would rather have heard Respighi) because the bass locked into my room so well? I may as well just recall the two most recent instances and acknowledge that many others preceded them, and many more will follow.

Telarc's *Love at the Movies* programs 18 "romantic melodies," played on solo piano by Michael Chertock. Most of the selections derive from films of the last 15 years, though some of this familiar fare dates back to the Sixties: "A Time for Us," from Zeffirelli's *Romeo and Juliet* or the theme from *Spartacus*. I definitely check to be sure there's no one around to catch me enjoying the more treacly material, like "The Wind Beneath My Wings" or (gulp) "My

Eminem

Heart Will Go On" from *Titanic*. It must be said that Chertock is quite good at this sort of thing (he's made three other CDs of movie music for Telarc). His arrangements are imaginative, with spiced harmonies and slight dissonances that are miles away from the realm of the hotel lounge, or the overwrought pounding of some Liberace wannabe. Chertock, who does have serious classical credentials, plays with a refined touch and has an even, confident technique. Moreover, he is recorded spectacularly well. You won't hear a more natural piano recording – a perfect blend of hammer hitting string and a glorious wash of sound when the player uses the sustain pedal. So, perhaps, creative arrangements, first-rate musicianship, and sonic excellence redeem G.P. No.1. But what can I say about No.2?

I've always tried to share my love of music with my children. When my younger daughter was little, she'd ask for *Peer Gynt* in the car and I was in heaven. Now, the kid likes rap. I try, really I do, to detect positive artistic sensibilities in the material she provides for my listening pleasure as I take her to a sleepover or the mall, nodding along in the interest of a good father-daughter relationship when, actually, it's all I can do to keep from turning into oncoming traffic. Her current passion is Eminem, aka Marshall Mathers, or his *alter ego* Slim Shady. Slim does have a discernible sense of humor and an oddly appealing wise-guy voice, but the content of 95 percent of his – ah – *oeuvre* is just awful: ungenerous; violent; misogynist. My 13-year-old glances over at me from the passenger seat every so often to be sure I'm suitably appalled. Then she got me my own personal copy of Mathers' newest parental-advisory-if-there-ever-was-one mega-hit: *The Marshall Mathers LP*.

I'm driving to work, alone, and don't really have to listen to it, but I find myself somehow drawn to the CD. Just one selection, in fact, as most of the disc is too brutal for me: "The Real Slim Shady," the cut used for the heavy-rotation music video. In it, Slim proclaims his uniqueness and general superiority ("I'm Slim Shady, yes I'm the real Shady/ All you other Slim Shadys are just imitating.") Over a repeating, arching bass figure in C minor (shades of Bach's *Passacaglia*, BWV 582), Slim's verbal elaborations dance lightly and knowingly over, around and inside the insistent beat. There's a kind of majesty to the chorus when it comes up each time, an almost baroque feel with organ-like chords heard faintly. I struggle to understand my attraction to this music. Perhaps it's post-modern Mozart: the sexual bravado of *Don Giovanni*'s title character, or the sputtering, vengeful viciousness of Osmin, the harem's protector in *The Abduction from the Seraglio*. Maybe? I don't think so, as I drive on, another fortysomething gangsta in a suit and tie. Guilty, guilty, guilty.

DAN DAVIS

Phillip Kent Bimstein: *Garland Hirschi's Cows; The Louie Louie Variations; Dark Winds Rising; The Door; Vox-Dominum.* Modern Mandolin Quartet *(The Louie Louie Variations)*; Turtle Island String Quartet *(Dark Winds Rising)*. Phillip Bimstein, producer. Starkland ST-205

I was inclined to ignore the editor's request for a "guilty pleasure…a recording you love and listen to a lot, but are a little ashamed of liking so much." I don't have oxymoronic guilty pleasures since I'm arrogant enough to think that if I like something and the rest of the world doesn't, the fault lies with those whose taste, refinement, and understanding are inferior to my own. But then, wandering around midtown New York one summer's day, I found the Big Apple littered with fiberglass cows. Really. Five hundred of them, scattered in public places throughout the five boroughs in a delightful summer-long art fest. That's a lot of cows and they reminded me that I do indeed have a listening pleasure I no longer seek to share with others, since my enthusiasm for that serious, thoughtful work was too often met with scornful disbelief.

It's a piece called *Garland Hirschi's Cows* [Starkland ST-205] by Phillip Kent Bimstein, whose *curriculum vita* includes a stint as rock band leader, composer of concert and dance pieces, and mayor of Springdale, Utah. Through computerized digital sampling techniques, Bimstein manipulates real-world sounds, spoken texts, and conventional instruments to convey the emotional impact central to any valid musical experience.

In *Garland Hirschi's Cows*, described as "a concerto in three moovements [*sic*]," Bimstein combines sound samples, farmer Hirschi talking about growing up in a small cow town and various aspects of cows, and of course, lots of mooing by cows, as individuals and in chorus. It's funny, a real leg-slapper, as moos come at you from all directions. But it's a lot more. The first moovement is an allegro, with Hirschi asking "You wanna know a little bit about my cows, huh?" Bimstein loops that line and others so it's repeated, fragmented, speeded, and slowed. The second moovement, titled "Pasturale" is a moving paeon to a lost way of life. Hirschi talks of growing up in a two-room house in a small Utah town where everyone had cattle. He tells of the days before refrigeration when meat from cows would be hung outdoors at night to keep cold. Mournful moos and instrumental interjections turn this section into a requiem for the

slaughtered and those soon to become steaks. The final moovement is a scherzo, a bouncy, foot-tapping, smile-inducing piece that swings. The piece as a whole is an affirmation of Hirschi's life and values. More than just a funny romp, it's a serious work with a universal message.

The rest of the disc is as worthy. My favorite is "The Door," which transforms the creaks and squeals of Bimstein's studio door into a stunning collage of sound and rhythm. It does what all art should do – make you see and hear everyday things in new ways, bringing new perceptions.

Bimstein's disc is indeed a pleasure I indulge in. Try it. Distributed by Albany, its also available direct from Starkland at P.O. Box 2190, Boulder, CO 80306.

MICHAEL ALAN FOX

I've walked down the Guilty Pleasures road before. Five years ago, I talked with HP about doing a piece on the shameful pleasures of surrendering to bad music, and got the go-ahead to proceed on this irresistible topic. I lost heart partway through, and I'll take a moment to tell you why.

It started a few months after Henry Mancini's death, when I found a long-forgotten copy of *The Music from Peter Gunn* [RCA LSP-1956] in the backwaters of my record shelves and decided to play it as a kind of mini-memorial. I had enjoyed the TV series in college days, but it had been a very long time since I listened to the record. As I listened to that once familiar music, I was struck by the fact that I had heard its cousins over and over again in later years, and I suddenly realized that Blood, Sweat and Tears and Chicago owed a tremendous debt to the Mancini sound.

I played "25 or 6 to 4" from the second Chicago album *[Chicago II,* Columbia KGP 24], which I remembered as a major wowser. Well yes, but I was brought up short by that chorus, "Sitting cross-legged on the floor, 25 or 6 to 4," and asked myself how I managed years ago to overlook the fact that the lyrics, as in the case of most Chicago stuff, are just silly.

The next step was to see where the pursuit of bad music would lead. From Chicago and BS&T, no great leap was needed to reach all kinds of lyrical lameness and music that teetered on the edge of self-parody and occasionally did a pratfall. Rare Earth and a couple of Vanilla Fudge albums were an essential part of this journey, and even the Beach Boys played their part: It would be hard to improve on these immortal lines from "Little Honda":

> It climbs the hills like a Matchless
> 'cause my Honda's built really light,
> When I go into the turns, hang on me and hold really tight,
> I'd better turn on the light so we can ride my Honda tonight.

But what might have been a fairly amusing article foundered on the rocks when I happened across a copy of Zager & Evans *In the Year 2525* [RCA LSP-4214]. Wondering if the title track could be as truly awful as I remembered, I brought it home, and yes, 30 years' march toward the target year had not cured this timeless stupidity. Worse, it didn't suggest anything further that I might listen to maintain the madcap spirit of bad music. No, it was a dead end; I could no longer listen to proudly bad music with any sense of enjoyment, and I certainly didn't want to write about that kind of dreck.

After that chastening experiment, I've learned some restraint, and I no longer push the envelope of *truly* bad music. But the two records I'm about to confess to are not exactly Olympian in stature.

Despite excellent reasons not to, I like *The Singles 1969-1973* [Carpenters, A & M SP 3601, mostly the songs produced by Jack Daugherty] and *The Best of The Guess Who* [RCA LSPX-1004, produced by Nimbus 9/Jack Richardson]. In both cases, only Side One will do and the first two songs should be skipped (in the case of Carpenters, make that a must: "We've Only Just Begun" is repulsive and "Top of the World" not much better). But tracks 3-6 are standouts (Carpenters: "Ticket to Ride," "Superstar," "Rainy Days and Mondays," and above all, "Goodbye to Love." Guess Who: "Undun," "No Time," "American Woman," "No Sugar Tonight/New Mother Nature"). The overdubbed background vocals and strings on Carpenters are a bit much, and although you might not want Karen Carpenter as your drummer, she had some kind of alto and she knew how to use it. Combined with Tony Peluso's brilliantly angry guitar solo on "Goodbye to Love," it makes for one of the best pop songs ever. With The Guess Who, "Undun" might be the standout, but it doesn't go downhill. Very few rock records have ever sounded better: There is no presence peak, and the midrange may even be recessed, but because of that, both "No Time" and "No Sugar Tonight" are major anthems that stay clean even when played just as loud as you'd like – remarkably good studio recordings. "No Sugar Tonight" as a single was not The Guess Who's greatest hit, but combined on the album with "New Mother Nature," it makes for a terrific song, with one of the killer bass/drum riffs of all time – the louder the better. If you're going for guilty pleasures, they might as well sound good. These do.

ARTHUR S. PFEFFER

Strauss: *Don Quixote*; *Death and Transfiguration*. MET Orchestra. James Levine, cond. DG 447762-2

In our society of extreme self-indulgence and extreme guilt, I should have no trouble disclosing a rueful pleasure of my own. But – talk shows take note! – I never feel guilty or ashamed at *any* musical pleasure, if it truly is a pleasure (actually guilt and shame are not synonymous; guilt is moral, shame is social). The best or worst I can supply here is a recording that *should* make me feel guilty: a DG CD from HP's Super CD list, Strauss's *Don Quixote* and *Death and Transfiguration* with the MET Orchestra under James Levine.

No, I don't disagree with HP. It *is* a super-recording. What induces guilt isn't disloyalty or even DG's reputation among audiophiles but its engineering methods: maximum multi-track digital processing, the antithesis of my – and HP's? – purist preferences. I witnessed for myself how such "4D Audio" recordings are made, at a DG recording session, same orchestra, conductor, and location, the Manhattan Center. Stanley Kubrick could have designed the control room. Dozens of individual tracks, each fed by its own microphone, meet and mingle in DG's enormous, glitzy digital console. Virtual software hands invisibly slide the faders up and down, algorithms shaping musical rhythms in real-time. Out in the auditorium, a central

array of stereo mikes perches above the conductor's head, but scores of individual mikes are spotted all around the room in front of the players' noses, the signals panned into appropriate stage positions by the console. Small satellite A/D converters sit right on the mike stands so that only noise-resistant digital data passes through the long cables to the mixer. The console even calculates how much reverberation each individual track needs to simulate spatial distances. What C. Robert Fine and Lewis Layton did with three tracks, natural air, and good taste, DG engineers fabricate electronically, a virtual recording.

What's more, though this part is ancient history, the ensemble never actually plays through the entire score or any large part of it. A few bars at a time are repeated over and over, and the snatches are assembled later into a virtual performance. And I supposedly dislike virtual recordings and virtual performances!

It's all under control, you see, automatic, antiseptic. Nothing can go wrong . . . nothing can go wrong . . . nothing can go wrong . . . and none of it should work. The sound should be airless and the performance mechanical. But HP is not deluded. Levine, his well-MET orchestra, and DG's expensive circuitry synthesize a convincing illusion of a live concert, with detailed, lifelike images and tonal textures, vivid dynamic power, airy spaces, and spirited, idiomatic playing. The CD is not fragmented or alienating but about as close to reality and genuine musical values as DDD recordings get these days. DG's formula works, or worked in this instance. This is good news for sound-conscious listeners, because digital engineering isn't going away. Better illusory realism than none at all. If I hadn't told you, would you have known?

SCOT MARKWELL

Elgar: *Caractacus.* Sir Charles Groves and the Liverpool Philharmonic Orchestra. John Willan, producer; Christopher Parker, engineer. English EMI SLS 998

I routinely play stuff I would not be caught dead listening to with card-carrying audiophiles. I guess I hide the things that reach me, one way or another, on a deep emotional level, when those things are considered "hoaky" or "poor music." I don't like to see people groan and roll their eyes when I put on something I really like, so I stick with "safe" stuff acceptable to most, even if it's vapid or bores me – and I have plenty of that that sounds just great! One of my favorite "secret works" is Elgar's *Caractacus*. This is, quoting from the recording's notes, Elgar's "fourth and most ambitious choral work composed within the space of five years in the 1890s," and is based on Maurice Hewlett's late Nineteenth Century, shamelessly romantic novel *The Forest Lovers*.

This is a stunning three-in-one recording, which gives you super-disc quality in a two-disc set with superb choral and orchestral sound and some of the most powerful and well-defined organ-pedal interludes on record. Side Two, which is also Act Two,

is my favorite. It is described as "The sacred Oak grove by the Tombs of the Kings; Arch-Druid, Orbin, Druids, Druid Maidens, and Bards round the sacred oak" (to give you a taste of the romantic flavor) and is both lyrical and powerfully emotional. When the soloist sings

> Bear your torches through the gloom,
> Quench them on the hero's tomb,
> Where the stones are wet and red,
> With the blood of victims red

and the music takes off into wanderings of organ, choral passages, and mega-organ rifts, you know you are in for something special.

This is a great system test-disc, so clean and full of dynamic and frequency contrasts that it can serve as a quick overall check to see if your system can handle so much information. Some refer to Elgar, and particularly this work, as just so much noodling by another one of those "out there" English numb-nuts, but every time I listen to *Caractacus*, I come away invigorated and energetic, knowing that all the problems I had been hearing in the system were software-related. These discs show me that I am on the right track.

I remain an unabashed fan of this recording, and recommend it if you are even the smallest bit adventurous musically. Good luck finding a copy, although fortune smiled on me in the NYC area thrice. Two copies I gave away to friends with taste as romantic as mine.

FRED KAPLAN

James Taylor

His voice can be nasal and saccharine. He's not much of a lyricist (one of his songs begins, "Gosh almighty, baby/ Yes indeed/ You supply the satisfy/ And I'll supply the need"). When he tries to sing the blues (rarely, thank Gosh), the results are wincingly wimpy (is there a more white-bread ex-heroin addict in all musiciandom?). And yet, there's something about James Taylor that moves me and soothes me – early-to-mid-period James Taylor, anyway, from his eponymous 1968 debut on Apple through his *Greatest Hits of '76* on Warner Bros [BSK 3113]. I even like about half of *Gorilla* [Warner Bros. 2866-2 on CD]. Do I prefer him to the other big folk-rockies of the era – Bob Dylan, Joni Mitchell, Carly Simon, Crosby Stills & Nash? Of course not. This assignment is about embarrassment, not idiocy. Still, what's going on here? Maybe, I rationalize, it's the audiophile in me. The early recordings were produced by Peter Asher, the mid-period ones were engineered by Lee Herschberg, the *Greatest Hits* LP was mastered at A&M by Bernie Grundman – all top-notch knob-twiddlers – and they sound terrific. The guitars strum, the drums smack, the cello glows, the voice breathes.

But no, that may be part of the story, but it's not the whole deal, otherwise I'd like Amanda McBroom, too (and, just to clarify matters, I don't, I don't). There's no getting around it: I just *like* James Taylor, and (isn't this the thing about guilty pleasures?) I don't know – I'm not sure I want to know – why.

ROBERT E. GREENE

Harry Nilsson: *A Little Touch of Schmillson in the Night.*
RCA APLI-0097

Roger Williams playing anything at all.
Kapp Records

Doris Day and Julie London

I'm reminded of a story about an interviewer who tried to soften up Otto Klemperer's stern musical presence by some "human interest" questions: "What do you read, Dr. Klemperer?"

"I read what everyone reads, Goethe, Schiller, Shakespeare."

"I mean, what do you read to relax?"

"Oh. For relaxation, I read Nietzsche."

I am not as rock-ribbed as that. But I really do listen mostly to music that falls in the category of "classical," even to relax, only on the lighter side – J. Strauss, Lehar, Gilbert and Sullivan. Still, some things lie a long way from the music I usually mention or write about explicitly. Things I tend to keep to myself. . .

Nilsson's nasal, reedy vocal production on this recording of great old vocal standards ("As Time Goes By," "You Made Me Love You," "What'll I Do") leaves unclear whether he has any voice at all by usual criteria. But like Louis Armstrong or Rex Harrison

in *My Fair Lady*, Nilsson triumphs by style alone. To go from his "Makin' Whoopee" to the version by, say, Sinatra or indeed anyone else (male) except Armstrong is to feel that sheer vocalism gets in the way of the song. Opera singers from Caruso ("Over There") to Te Kanawa ("Blue Skies") and onward have shown over and over how having a Voice can be an impediment in the world of popular song. (Of course, Fitzgerald shows how you can have the voice and still do a great job of the songs, but it requires real art.) No one can accuse Nilsson of letting his (non)voice carry him away from the songs, and in its own way, his singing here is oddly perfect – and unforgettable. He also sings these great songs entire, which few others do. An indispensable record. Also available on CD (which I haven't heard – somehow the vinyl seems right for the spirit of the thing). Look for the gatefold cover.

No one who knows the piano will accuse Roger Williams of being short of pianism in the usual sense. A child prodigy and Julliard student, Williams on classical disc for Kapp is more than respectable. But it is as perhaps the world's greatest master of the style that one can only describe as "cocktail piano" that Williams became the best selling pianist of the Fifties, and I think, ever. And no wonder – Williams could play simple, even infantile, melodies ("I Believe [for every drop of rain that falls]") in such a way that they became hypnotic. The arrangements are sometimes just a bit too, too Fifties – what excesses we were prone to then! But at his best, Williams reminds me of Richard Strauss' remark about Johann's waltzes: "the only music of which I never tire."

The sound of Kapp was bright and not always free of distortion. For all their erstwhile abundance, it is not easy to find pristine copies of these records. People listened to this music till they wore out the vinyl. But they are worth seeking out. Williams was at his best with songs from the films and from the Fifties (*Songs of the Fabulous Fifties* – "Unchained Melody" as a piano solo for instance). And when Christmas rolls around, *Christmas Time* must not be missed. Williams' version of the "Christmas Song" ("Chestnuts roasting on an open fire…" – that one) is part of my holiday every year – four minutes of perfection in our imperfect world.

The bewitching power of a woman's voice is an idea that goes back to ancient myth – the Sirens' song, the Lorelei. And during the period between the end of World War II and the rise of rock music, the myth came to America, with sirens abundant. Before she became Hollywood's goody-goody actress, or in Oscar Levant's words, "before she was a virgin," Day had a big career as a torch singer, beginning with Les Brown and his Band of Renown. *Hurray for Hollywood*, with Frank de Vol and his orchestra, was her later high-water mark among many superb records she made for Columbia. The combination of impossible vocal lushness and a bit of cynical bite (the title song, "Blues in the Night") is captivating. That lushness literally *is* impossible: It is accomplished via the use of one of the old mikes that juices up the voice with resonances. No one ever actually sounded like this, more's the pity. Garland fans will no doubt object to Day's smoother, less overtly heart-rending version of "Over the rainbow," but taken on its own terms it is gorgeous. And the record is a sonic stunner, realism be damned. The Columbia Special Products reissue is fine, but the original is even better.

Day is vocally smooth as butter and smart, too. But the flower of all the torchers, the nonpareil Julie London. Never mind how she looked. I fell for her voice on the radio long before I knew how perfectly she fit the part in appearance. And what a voice it was, with that combination of huskiness, almost to the point of hoarseness, and a pitch purity comparable to Marni Nixon (well, almost). The mode of expression is artlessness. Julie sings to you, and you alone. The soft, slow songs are far superior to the upbeat or raunchy ones, and the commercial attempt to move London from her natural style into a harder-edged jazzier mode was a mistake. Liberty, Julie's recording company, seemed not to know how to let more than well enough alone. Overblown arrangements and artificial reverb can get in the way of the phenomenon that was her singing. The great performances are scattered, though fortunately numerous, though the CD collection *(The Best of Julie London)* contains fewer of my favorites than I hoped. So you really need to hunt down all the records, especially *Lonely Girl*, with guitarist Al Viola. Until you have heard Julie's "How Deep Is the Ocean" and "What'll I Do," you don't really quite know what can be done with popular song. Incomparable. Enough to make anyone feel guilty of something.

UPSTAIRS

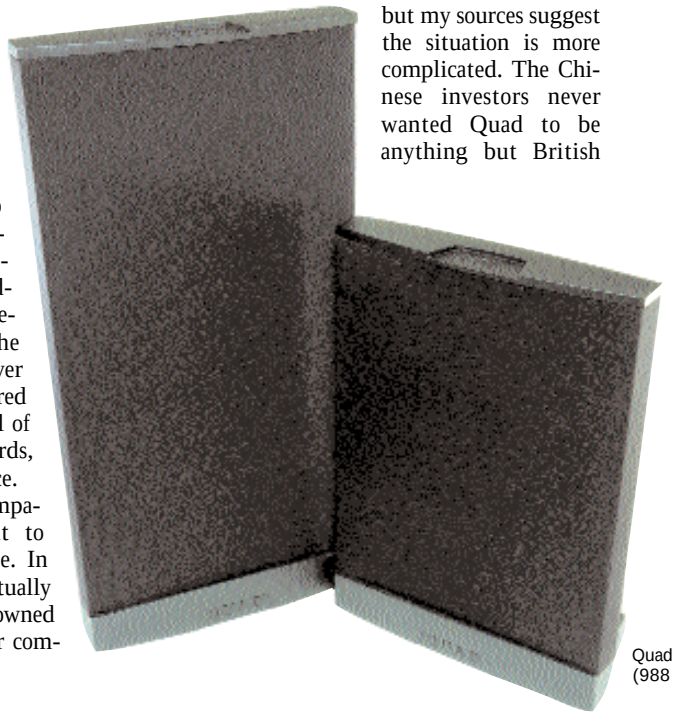
Quad 989 Loudspeaker: Updating a Classic

"Quad: The Closest Approach to the Original Sound." This blurb next to a photograph of a speaker in a shape I had never seen before was my introduction to Quad electrostatic loudspeakers 30-some years ago. I was a junior in college, just getting interested in audio; but all I could afford, let alone fit into a tiny apartment, was a three-piece Harman Kardon compact that I thought offered good sound. I can't remember how many systems I've had through the years – including the original Quad ESL (bought and sold three times over) and the ESL-63 (twice, before it settled in as my personal reference these last seven years) – but I've never forgotten that blurb, still the best one-liner I've read for an audio component, not just because it's memorable, but because it is a succinct statement of design philosophy.

One of the big differences between the great British audio designers and their American counterparts is that the former seem never to have harbored the illusion that it was possible or desirable to bring musical events into one's listening room. For Peter Walker, the founder of Quad, the applicable metaphor was that of a window onto the concert hall – the purpose of a good high-fidelity system to transport the listener to the orchestra. To that end, Walker concentrated on transparency, linearity, low coloration, and low distortion, rather than loudness capability, dynamic range, and low-frequency extension. It is a tribute to the longevity of his two models that, whatever their limitations, they not only have acquired classic status but remain among the handful of speakers actively used as reference standards, unsurpassed in certain aspects of performance.

But like many small, privately held companies, Quad found it increasingly difficult to remain competitive in a global marketplace. In the Nineties, the company foundered, eventually purchased by the Verity Group, which also owned Wharfedale, another old British loudspeaker company. When Verity proved unable to rejuvenate Quad, and the Wharfedale line was also in trouble, Stan Curtis, then chairman of Wharfedale, decided to buy them himself. But no one was interested in investing in either company – if Verity couldn't resuscitate them, who could? When things look bleakest, Curtis managed to raise the money from a group of Chinese venture capitalists called Jetop, Ltd. Thus was born the International Audio Group.

Curtis did a brilliant job of turning Quad around. He oversaw the updating of the 63 to the 988 (not yet available for review), the development of the larger 989, and the completion of the 99 Series electronics. But owing to internal disputes that have not been made fully public, the Quad design team and management were recently let go, then Curtis himself resigned. A story initially circulated in the British press seemed to make the Chinese the villains, but my sources suggest the situation is more complicated. The Chinese investors never wanted Quad to be anything but British



Quad 989 and 988 (988 not reviewed)

designed, run, and produced, to which end the entire production and service staff, some of whom go back three decades with Quad, were left in place throughout the Curtis affair, while many of the design and management personnel have since been reinstated. Though Curtis is gone, for the nonce Quad is in good health, with several new products planned, including a home-theater preamp/processor and the long-awaited updatings of the original Quad II all-tube power amps and preamp.

Conceptually, the new models remain in their basics the same speaker as before: a diaphragm of Mylar panels driven by a delay line of concentric annular electrodes designed to imitate the theoretical ideal of a "pulsating sphere" point source. The new speakers are also physically similar, except for some cosmetic details and the 989's standing about 15 inches taller to accommodate the extra pair of bass panels.[1] The principal philosophical difference between Walker and Curtis, et al., is that Curtis et al. were willing to pay more attention to what has since become widespread audiophile thinking (wire effects, rigid mounting, parts quality as opposed merely to their specs, etc.).[2] Curtis also evidently considered every criticism of the 63; not that he acted upon them all, only that he listened. Throughout the process, all changes were referenced against the 63.

Even in its beefed-up US version, the 63's housing never inspired the greatest confidence. The entire frame is now considerably sturdier, the metal grille both more transparent and much stronger, extrusions in the grille itself replacing the spindly uprights that can't have been a good thing. The bottom plate now comes tapped for spikes (supplied). Other significant changes include better transformers and power supplies, oxygen-free copper wire of great purity throughout the delay lines (for Walker, wire was wire), and a higher-quality Mylar with superior batch-to-batch consistency. The ingenious circuit that protects the panels from being overdriven remains identical, except that the 989 has a higher-rated polyswitch in keeping with its greater power-handling.

So how does the 989 sound? Is it really just a 63 with better bass and dynamics? Does it need a subwoofer? Can it play really loudly? Let me say right off that the 989 is a Quad right straight through, with all the virtues of its classic heritage: peerless coherence; openness; transparency; holographic imaging; low coloration; and quite low (i.e., essentially amplifier-level) distortion. It can still pass a virtually perfect square-wave and still sounds as if there's next to nothing between listener and program. The absence of all the usual spurious cabinet resonances and response and phase anomalies of drivers and crossovers still results in reproduction of such clarity and purity that it can seem eerie; but come to them from live music and you appreciate the essential rightness of the sound.

But while the 989 and the 63 are recognizably of the same lineage and sound similar, they do not sound identical, particularly in tonal balance. Robert Greene, who has taken measurements on both speakers, will comment on these differences in more technical detail; what follows are my subjective impressions.

Starting at the bottom, the 989s play deeper, louder, and much cleaner than the 63, which, despite its many virtues, never had real bass authority. The 989 does. Its performance on most organ music, large-scale Nineteenth Century symphonic material, and chamber, jazz, folk, and popular music with low-lying percussion and string-bass is now on par with the upper range. For the first time, Quad lovers can enjoy deep bass cut from the same sonic cloth as the rest of the speaker. Symphonic music is especially impressive in its weight, foundation, and dynamic range. Bass drums approach that combination of power and definition familiar from the concert hall, with none of the showy "tightness" that cries "audiophile," nor any of the overhang familiar from woofers that prize quantity over quality. You'll also hear all the air, dimensionality, and hall ambience the source permits (on the St. John's Christmas CD [Chandos CHAN 8485], traffic coming and going outside the building is clearly audible).

Does the 989 need a subwoofer? Let me put it this way: With –6dB spec'd at 30 Hz, the 989 will play right down to the bottom octave at any natural level. In this sense it is a full-range speaker that no more needs a subwoofer than any similarly extended full-range speaker. Like all but a few, however, it will not reproduce, at much amplitude, the bottom half- to two-thirds octave: 20-35 Hz. For that you will need a subwoofer.

One of the raps against the 63 is that it had no high end. This is, of course, untrue. By design, the 63 was a directional loudspeaker with a narrow response window that mandated on-axis listening. There it exhibited a perfectly natural high end that appeared, subjectively, slightly down in top-octave level and extension. Curtis and company addressed this "deficiency" by giving the 989 what sounds like slightly elevated high-frequency energy on-axis, in order, I am guessing, to increase the top-end power response. This is a perfectly acceptable design decision. Not only do you not have to position yourself dead on axis with the 989s, it's probably better if you don't. Graphs supplied by Quad suggest that 10-20 degrees off axis yield the flattest response up top, which also has the advantage of letting both you and a friend occupy the sweet zone. Mind you, the 989 is still a directional speaker, nor should anyone infer that the 989 sounds bright. It merely has a slightly brighter profile than its predecessor (the tilt-control on the Quad 99 preamplifier can be used to address this rather effectively).

Which do I like better? Can't answer that until I spend more time with the 989. The 63 has been a live-in for seven years now, and it takes a lot to make me change partners. Though I really like the high-end balance of the earlier speaker, feeling that most

1 The black polymer top-trims replacing the wood of yore have already garnered complaints. "Plastic in speakers selling for eight grand a pair?" someone harrumphed. Theoretical sonic advantages notwithstanding, Quad made an executive decision à la Henry Ford that until production has stabilized, the consumer can have any color so long as it's black. The next 18 months, however, will see wooden caps in several finishes and different colored grille stockings, both field-retrofittable. (I find the black-on-black cuts an elegant figure.)

2 Given the almost unparalleled sample-to-sample uniformity of the 63, it is not easy to dismiss Walker's dismissal of these concerns.

speakers and recordings are altogether too toppy, I also know that for many the 63 didn't sound flat, either. Just know that recordings on the verge of edginess through the old speaker now cross the line through the new – that may be greater accuracy for you – and recordings with smooth, extended highs (try some recent Cheskys) display their wares more felicitously – that may also be greater accuracy. Audiophiles who felt the 63 was a little dim are likely to be delirious over the 989, while everyone else can rest assured that the *quality* of the highs is as fine as ever, revealing even more detail with no glare, glassiness, or hardness, with telltale signs of ambience immediately available (compare the Emerson Quartet playing the Beethoven and the Shostakovich quartets and you'll have no trouble discerning the differences in recording technique and locale).

Another reason for the altered high-frequency balance is the addition of the two bass panels themselves, which would certainly alter polar-response patterns and impact the midrange. About the midrange, 989 literature is quite forthcoming, if nonspecific, speaking of "enhanced performance in the mid-band." This worried me; how do you "enhance" a midrange that was already practically flawless? It is rumored that Peter Walker put in a tiny peak around 4 kHz, which the 989 retains, only it appears to have shifted down an octave or so. Otherwise, what I hear is a richer lower-midrange and more brilliance in the upper. Voices sound as if they have more body and, when appropriate, more size. Indeed, overall the 989 is capable of projecting a much bigger, more spacious and authoritative presentation than the 63.

Best of all, the 989 retains all the matchless *presence* of the 63. I've become tired of speakers that recess the midrange to cater to the fashionable craving for more "depth." Voices on the 989 emerge in all their glorious, palpable presence: front and center, if they're recorded that way, set back if they're not. Hint: most recordings, especially popular ones, place singers *well* forward; likewise featured instrumentalists. Quads bring Jacintha so close it's almost indecent *[Here's to Ben*; Groove Note GRV2001-2]; when the incomparable Ben Webster plays "How Long Has This Been Going?" [Columbia CS 8691, Classic Records reissue], his sax is right out front in all its throbbing, shamelessly voluptuous glory; and in Harmonia Mundi's Anonymous Four recordings, the singers, though set somewhat back to capture more of the acoustics, are still present within the perspective. Here's the main problem with recessed midranges: When there is real recorded depth, the presence of those placed at a distance is diminished and true perspectives are compromised. This never happens with the 989s.

What about dynamics and loudness, and such mundane matters as placement and power requirements? About the former, let me make the point by way of exaggeration: If you want to play at clean levels loud enough to damage your hearing, the 989s will do the job nicely, even in large rooms; but if you want to play so loud as to destroy your hear-

ing, the speakers will have sense enough to shut themselves down. This new loudness capability plus the unsurpassed ability of Quads to play really quietly without tonal drop-out should answer the macrodynamic question. As for microdynamics, since this Mylar diaphragm is as low-mass as diaphragms get, pick an instrument as common as a lute or guitar or as *recherché* as the psaltery on Harmonia Mundi's *Bitter Ballads* [HMU 907204] or the rainstick on Christy Baron's "Mercy Street" *[Steppin';* Chesky JD201], and you'll hear dynamic gradations of such ravishing delicacy they make most other speakers sound coarse.

Power requirements? That Neil Gader and I used the 989 for our integrated amplifier survey is testimony enough to its resolving capabilities (differences *instantly* audible) and to its compatibility with most good amplifiers of 70/70 watts, though you'd want more for large rooms and high volumes. In my 22' x 15' x 8' room, clean levels loud enough to force me to cover my ears were obtained with Marsh's MSD A400S and Sunfire's Signature.

The subject of placement is always vexing with dipoles, Quads being no exception. Or are they? Here's where I'm supposed to warn that you'll have to spend hours moving the speakers inch by inch to get good sound. Well, much as I hate to disappoint the proactive contingent out there, my experience with these new Quads goes like this: (1) Place them several feet into room. (2) Establish a listening triangle. (3) Enjoy music.

The 989s are much more flexible about orientation than their predecessor. Begin on axis and toe them out by degrees until you achieve a musically satisfying combination of tonal balance and imaging; I predict you'll find 10-20 degrees off axis about right. They can also be placed within 18 inches or so of the side walls, which means you can spread them quite wide (adjusting the toe-in accordingly) without incurring the dreaded hole in the middle. You can even put them pretty close to the back wall. Years ago, Peter Walker suggested that a meter out

Peter Walker & the Original Quads: A Valentine

Leonardo da Vinci observed that an arch is comprised of two weaknesses that, leaning upon each other, combine to give an enormous strength.

This concept was exploited by Peter Walker and Theo Williamson in developing their amplifier; they contrived to have the weaknesses of previous designs oppose each other, thus yielding the improvement in performance. Of course there were no computers then, so all calculations had to be performed using pencil, paper, and slide rule. This brings us to another general concept: The more restricted the means, the greater the likelihood of achieving an elegantly simple design solution.

Peter Walker had become accustomed to the elegant symmetries of the opposing, balanced forces of the push-pull circuit, and an adept at spotting the complex terms that, in push-pull working, would appear on both sides of the equations and could be dropped out. He notes that a simple expression governs the far-field axis pressure of an electrostatic speaker, eliminating many terms required to model dynamic-coil performance, such as the driver mass that must be accelerated to speed and then stopped. He writes: "The result, dependent on only two simple electrical measurements and two simple dimensional measurements, independent of frequency, area, or shape of the loudspeaker element, is in marked contrast with our usual experience in the field of loudspeakers!" *(JAES,* November 1980, Vol. 28, No. 11)

In 1954 Walker and Williamson filed a patent describing the means of controlling charge migration on the diaphragm, the Achilles heel of previous attempts in this field, and in 1955 published a series of articles in *Wireless World,* "Wide-Range Electrostatic Loudspeakers" (Vol. 61, Nos. 5, 6, 8). Walker and Peter Baxandall met regularly with Williamson, and the three often talked far into the night about the right way to approach both amplifier and loudspeaker design. After one strenuous weekend in the garage, a working prototype electrostatic loudspeaker appeared.

By 1957, the design had been completed, and it shows Peter Walker's thoughts clearly. The polar pattern was made to resemble a cardioid, when fitted with a felt blanket behind the diaphragm. The factory now wanted to put the design in production, but Walker was reluctant. New thoughts were stirring in his mind.

Meanwhile, the design had met with strong criticism from hi-fi folk conditioned by years of listening to big dynamic cones in massive enclosures. As time passed, though, people recognized that these speakers had to be positioned well into the room, and their reputation and sales grew. Still there was no new model Quad electrostatic to build on that success.

Walker had been sketching ideas for development for some years (his attitude was always that new solutions would be ready when they were ready), and in 1963 he resolved the principal drawbacks that had prevented any electrostatic loudspeaker from realizing the full theoretical potential. This came in two parts that depend upon each other to succeed. First, he could approximate the acoustician's dream, the infinitely small point source that radiates sound equally over an expanding sphere. From the diagram below, you can see that if you make the diaphragm ripple like the surface of water when an object is dropped into it, you have recreated an expanding spherical wavefront. Second, by controlling the patterns of charge influencing the movement of a virtually massless diaphragm operating in a linear system, it was possible to model any wavefront and dispersion pattern. Furthermore, you could measure this by monitoring the charge flowing at any point, through any of the sectors of the stator panels, and adjust it with the same components used to delay the signal and shape the wavefront. Acoustic distortions will also be revealed by the patterns of charge flow, and are adjustable by the same means!

Stator rings of a Quad 63

In 1963, however, Walker only had an idea, and work commenced on the Dartboard, as it was affectionately known in the family, for its annular rings of conductive wire. That work continued for the next 17 years until, in 1980, the product was finally ready for release as the full-range electrostatic doublet (or Fred). Ross Walker remembers Peter staying up night after night, making vector calculations, inching his way toward a product that ordinary customers could use in untreated rooms. This led him finally to modify the directivity as a function of frequency so that, at the higher frequencies reflected by plastered and wallpapered walls, the stereo image would not be confused by multiple ghosts. As he once said, "With electrostatics, it is easy to get it 95 percent right – the other 5 percent is murder!"

I remember digging out Walker's papers from the stacks of the Science library in London, and laughing at the audacity of the first one I examined, which proposed replacing the entire back wall of the listening room with one huge electrostatic diaphragm: The dispersion characteristics would provide complete coverage of any conceivable listening position!

BARRY RAWLINSON

is adequate. I tried this, and be damned if the designer didn't know what he was talking about (heresy to many audiophiles, I know, but true). The presentation remained open and clear, with good depth, the principal penalties a *very* slight nasality (probably correctable with back-wall treatment, such as Echobusters) and heavier bass (not unpleasing), offset by greater overall warmth (very pleasing). And yes, I'll come clean, whether they're a meter, two, or three out, you'll have to work a little to get the bass optimized. But being true dipoles and thus exciting fewer room modes than normal speakers, the 989s retain far more of their essential sound from spot to spot.

The only aspect of the 989's imaging that's likely to cause concern is height. Vertical image-position is determined mostly by tweeter height; since the acoustic center of the 989, where the highs emerge, is only a little over two feet off the floor, some audiophiles may find that performers don't stand tall enough. Though much less of a problem with the 989 than the 63, I already see a cottage industry of stands to "correct" it. It will, but at the expense of introducing floor reflections that'll put holes in the mid- and upper-bass response. Use them as they are intended: Peter Walker and his successors knew what they were doing.[3]

One of the silliest spectacles that audio reviewing affords is watching reviewers pronounce this, that, or another component the best, as if the very idea of a "best" were even conceivable, without mediating among a component's strengths and weaknesses. If I have seemed circumspect about the 989, it is partly because I've tried to balance some objectivity with an enthusiasm for a product I find, for the most part, absolutely fabulous. Yet much more time, not to mention the perspective of the 988, is necessary to gain anything like the full measure of this extraordinary speaker.

Until then, I shall take my respite wrapped in a nice, cozy subjectivism. Those characteristics that Quads possess in abundance are for me those most essential to the convincing reproduction of music in the home, whereas those few things they do not do well are unimportant to me or irrelevant to my domestic situation. Which is a roundabout way of saying that Peter Walker's 20-year-old design remains for me the closest approach to the original sound. This latest iteration preserves most of its virtues, extends them into areas where it was not previously strong, and augments those with still others. If the path is not quite identical, the approach, on balance, is perhaps even closer.

PAUL SEYDOR

3 I've heard all the famous after-market Quad modifications and to my ears they serve merely to turn one of the most musically satisfying speakers ever made into an "audiophile" speaker in the worst sense. The only "modification" I recommend, if your aesthetic sensibilities aren't offended, is pulling the grille sock down for improved transparency. However, you should never, ever let anyone talk you into bypassing the protection circuit or removing the protective metal screens and cellophane dust covers. The manufacturer has made this product safe and essentially bullet-proof. Respect that.

IMPORTER INFORMATION

IAG America

180 Kerry Place, Norwood, Massachusetts 02062

Phone: (877) 440-0888; fax: (781) 440-0333

www.quad-hifi.co.uk/home.htm

Source: Importer loan

Price: $8,000/pair

SPECS

Sensitivity: 86dB/2.83V RMS

Impedance: 8 ohms nominal

Maximum program input: 40V

REG COMMENTS:

The Quad ESL63 remains one of the world's best speakers, almost 20 years after its introduction. The original Quad ESL demonstrated in 1957 that a full-range electrostatic was a practical possibility, but the ESL63 pushed the concept further by attacking the fundamental problem of planar radiators: their radiation pattern is dependent upon frequency. The ESL63 dealt with this problem by synthesizing a virtual point source. The speaker consisted of concentric rings, with those further out successively delaying signal arrival relative to the innermost ones. To understand the logic of this, imagine listening to a real point source through a circular window. The sound from the source outside reaches the center of the window before it reaches the edges, with intermediate times at intermediate distances from the center. It's been known for centuries that the wavefront from the window could be obtained by imitating the time delays in rings around the central axis (this is a special case of what is known as Huygens' Principle, which dates from the Seventeenth Century). But carrying this out in practice was not simple: The ESL63 was almost 20 years in the making. The result was an extraordinary speaker offering essentially complete coherence, phase linearity, quite flat frequency response, a well-controlled radiation pattern, and extremely low harmonic distortion (see my review, Issue 52).

And yet the ESL63 had certain problems. A peak around 4 kHz and some irregularities further up gave a bit of "glare" to the sound. It had severe dynamic limitations in the bass and lacked full bass extension. Perhaps most disconcertingly, the ESL63's sound was a little too lean as a result of a depressed in-room response from around 125 to 300 Hz or so. This was a feature in all the set-ups I have heard. A room effect, indeed, but an essentially universal one, exacerbated by putting the speakers on stands. The bass problem could be solved admirably by the dedicated subwoofer from Gradient, and the slight glare and leanness could be tolerated in exchange for the speaker's other virtues or solved by some equalization, either analog or via DSP. (A DSP-corrected pair of ESL63s plus Gradient subwoofers is still, within its loudness limitations, one of the most accurate and pleasing speakers available.)

I wish I could say that the 989 was sonically an ESL63 with its problems solved. But I did not find this to be so. Certainly the bass extension and loudness potential have been enhanced by the addition of extra bass panels. But the bass is not very good. The speaker sounds as if it had a substantial resonant peak around 50 Hz, with a rather drummy quality, and overall its bass is considerably less satisfying than the really good bass the Gradient SW63 subwoofer supplied for the ESL63 (review, Issue 73). Moreover, in my room, the speaker remains lean through the upper bass and lower mids. And it is rather more inclined to glare than before, having been given more treble energy. In my room, the overall response was smooth, as most speakers go, but it had an odd and not pleasing nature: After the bass prominence around 50 Hz, it dipped gently to an overall depression in the lower midrange, rising to a comparatively elevated plateau from around 1 kHz on up, albeit with a dip at 5k. These ups and downs were not large, but they were broadband and gave the speaker a "light" balance. The measurement of large planar speakers quasi-anechoically is a tricky business, because the sound is affected by floor loading, and my usual technique of elevating the speaker out of doors gave results not connected in detail to the in-room measurements anywhere but in the top two octaves. But the measured in-room (im)balance was much like what I heard. Of course, you could correct this by equalization, and when I did, the result was a speaker with smoothness, coherence, low distortion, and intrinsic clarity. But without this, the 989 is too light weight in balance to be pleasing in the long term, to me. The 989 essentially never sounded rightly balanced on any material, especially not on orchestral music, which had a thumpy bottom attached to a leaned-out lower mid and a considerably elevated top half of the spectrum. Smooth and more or less uncolored, yes, although there is a little nasality. But correctly balanced, no. I believe this will occur in all rooms, not just mine, which is on the flattering side for high frequencies, with its bookcases, heavy carpet, and upholstered furniture.

If you come to the 989 without experience of the ESL63, you may well be so stunned by the intrinsic virtues of the whole Quad sound that you can ignore the balance question. But the venerable ESL63, plus a pair of its dedicated Gradient SW63 subwoofers (one under each 63) formed to my ears a considerably better sounding speaker.[1] The irony is while the ESL63s were designed primarily by science and measurement, the 989s were designed on the basis of extended listening tests. But listening tests have to be conducted extremely carefully to avoid an effect like Gresham's Law (bad money drives out good). The audio Gresham's Law seems to be that more brightness (and more loudness) tends to drive out truth. The Quad ESL63s had an essentially correct top: flat on axis (to 18 kHz), except for some narrow-band irregularities related to the extended radiating area, and a correct and natural (to my ears) reverberant-field high-frequency content. The 989s are considerably less flat through the upper mids and the lower treble than the ESL63s, according to Quad's own measurements as well as my own – flipping down at 3-5kHz, followed by a peak at 8k and another flip up in the top octave. Some of these detailed ups and downs are probably not serious in-room, being smoothed out by room effects and by the fact that the ear and a microphone react somewhat differently to a large radiator. However, the overall top-end energy is increased in the 989s compared to the ESL63s , and the ESL63s are more accurate.

No one can be blamed for falling for the Quad sound, and the 989 is, as PS says, identifiably a Quad in many of the good senses of that phrase. But the original ESL63 sound more like music to me. Further investigation of the more direct replacement of the 63, the 988, will follow in a later issue.

1 I am going on memory for the subwoofers, but not for the ESL63, a pair of which were on hand for the review.

Horning Alkibiades Signature Gold Loudspeakers

The Alkibiades Signature Golds from Horning Hybrid Corner Horn Production are the finest full-range high-sensitivity loudspeakers I have heard under controlled conditions.

This 77" tall, 198-pound, three-way, 99 dB/watt Lowther driver-based system is a snap for any amplifier of at least 8-10 watts rating to drive to room-filling levels. It plays music convincingly even as it serves as an excellent tool for evaluating and exposing colorations in other links in the audio chain.

The Alkibiades is Tommy Horning's top regular-production offering. The one model in his line above it, the Algame Signature, is a built-to-order product that differs from the Alkibiades only in that it has a larger cabinet (and therefore slightly lower bass cut-off). Fashioned from a combination of nicely finished veneered medium-density fiberboard and solid wood (with an integrated molded fiberglass base that is both a support platform and part of the vented cabinet's bass-tuning system), the Alkibiades looks simply built and not particularly special at that. It is, however, the mature product of a dedicated, tenacious, and inventive mind.

Horning first began experimenting with Lowther drivers in the 1970s, when he met Donald Chave, then Chief Technician for Lowther Speaker Company. He listened to Chave's TP1 system, built around the Lowther drivers of the time, and came to believe that the speakers could reproduce the dynamic realism of music much better than any other design. But the Lowther drivers themselves he considered problematic: flawed in tonal balance, with a tendency to ring, and lacking in natural musical warmth. Still, he so liked the dynamic realism he decided to try to overcome their limitations and make a warmer, more natural-sounding system. In virtually every area, he has succeeded.

Not a true horn-loaded speaker in the conventional sense, the Alkibiades makes use of a modified cabinet design Horning developed called Horning Asymmetric Quarterwave Cabinet System (HADQCS).

Horning thinks every other type of bass-loading enclosure system on the market does *not* provide a satisfactory musical experience. Bass-reflex, he says, is a failure because of the cabinet's tuning to one frequency in the bass, thus sacrificing other notes and making unacceptably high levels of coloration at frequencies under 200 Hz. Acoustic suspension he dislikes because of what he cites as its lack of true transient ability and a loss of dynamics and speed of response. Open-baffle he dismisses as having transient control problems and often the need for equalization under 200 Hz for proper extension that induces phase shift, diminishes realistic dynamics, while adding distortion via high cone excursion. He notes that conventional horn-loading contributes to excellent dynamic realism but, he writes, almost always results in an over-damped, dry bass. So he devised HADQCS, which, like a horn, uses the cabinet to amplify the low frequencies under 200 Hz, while exhibiting more of the sonic characteristics of an open-baffle design (both low-frequency drivers are open to the air on each side, avoiding many of the horn characteristics he dislikes). This arrangement, he thinks, allows each driver to operate optimally, especially in their range of overlap. He notes that his system works by combining the two free-air resonances of the Lowther mid/bass unit and the Beyma woofer, and he tunes the cabinet so that both drivers develop the same amount of internal air pressure. This configuration, he says, allows the Lowther to function at lower frequencies as if it were a much larger driver. And indeed, the 8" driver does seem as unflustered as a 12-15" woofer. He also employs what he calls his Horning "Variator," an adjustable disc fitted in an arrangement that physically resembles a rear-firing port which can be opened or closed to vary part of the airflow out of the cabinet, tuning the bass response to different rooms and positions. The difference between the Variator system and a conventional port in a bass-reflex design is that there is, in addition to the adjustable output from the Variator, airflow in and out of the bottom of the speaker via the specially-shaped fiberglass pedestal, and the system is not tuned to a set frequency.

Unlike other Lowther-based systems, Horning's design eliminates the usual "whizzer" cone (he found it produced several resonances in the audible range). Instead he focuses on the DX-4 unit, an 8-inch paper-cone driver that uses a neodymium magnet assembly with anywhere from a 2.1-2.4 Tesla flux density rating (depending on the model).[1] The DX-4 is paired with a modified Peerless polyethylene cone tweeter that was, according to Horning, first available in 1955, called then the "whistling dome" tweeter. He keeps the diaphragm, but replaces the factory-supplied magnet with a Lowther-manufactured neodymium unit of more than double the power, for improved sensitivity and lateral dispersion. All his current speaker systems make use of a paper-cone Beyma woofer, fitted to the top rear of the cabinet.

Horning uses a single 6-microfarad capacitor to control the tweeter's response, which is eased into the sonic picture at 6 db/octave, starting at 4,000 Hz, no crossover at all for the DX-4 mid/low driver (he allows it to respond from its natural low-frequency capability to its high-frequency acoustic roll-off, beginning about 3,000 Hz), and a simple air-core inductor to gently roll off the 15-inch Beyma woofer above 200 Hz. Horning uses a pair of notch filters (simple coil, capacitor, and resistor networks) to tame a 4-dB peak around 2,500 Hz and another at around 8,000. Horning believes that a conventional crossover would significantly degrade dynamic response, while notch filters control the two problem areas without sonic penalty.

Of course, the real question is how this all translates into the perceived sound of the system. In listening, I am unable to tell where one driver stops and another begins. I can hear, if I stand at the rear of the cabinet, that the woofer runs up in the frequency spectrum much higher than is normal, but from the listening position, there is a seamless integration with the front-firing drivers.

These speakers take a *horribly* long time to break in. I listened for almost three months before the sound relaxed and lost a nasal honk in the midband. Those who know Lowthers tell me this is a normal characteristic of the drivers. Once set, though, these speakers are incredibly open, lucid, and transparent, with a smooth and natural tonal balance. Their lifelike dynamic agility and freedom from compression are wonders to hear. They don't possess the last degree of "snap" or that almost instantaneous acceleration/deceleration that top electrostats do, but they are warm and full-sounding, with excellent body on voices and brass instruments.

Their bass characteristics are going to be the subject of debate, I think. While the speakers are capable, in my room, of audible response into the mid-to-low 30s, from the lower mid-bass down they are a bit rolled-off in my preferred location for them, which is about 2.5 feet from the back wall. Horning advocates corner loading for generating the lowest bass, but I prefer the openness and speed of bass response when the speakers are well out in the room. I use a pair of subwoofers of my own design operating below 50 Hz, so I have no complaints on that score, but for those without a sub, a slight compromise is required. Truth to tell, the losses are not severe with the speakers positioned toward the corners, but I am crazy for depth and air, so I opt for my subs and forego a bit of deep bass from the main speakers. Depending on the size of the room, proximity to the side walls is another variable. In my old room, which had a much higher ceiling and was longer and wider than my current room, the speakers were happy about two feet out from the sides and 7-8 feet from the rear wall, with a small toe-in angle that had the tweeters' output "crossing" a bit behind my head. This arrangement created a soundstage that seemed wall-to-wall, with good focus and center-fill. In my current, smaller room (about 12' x 10' x 8' high), the speakers like to be as far apart as possible, with the edges barely a foot from the side walls, only about three feet off the back, and toed-in sharply, so that the tweeters' point of crossing is about a foot in front of my nose. This concentrates the music field between the two speakers, with great density of center-fill information and laudable depth rendition. Stage width is truncated a bit, however, never venturing beyond the outside edges of the speakers. I have not liked a set-up like this before – it was too confining for the music. But in this instance, the speakers, while not able to transcend their boundaries, render a credible facsimile of a recording's original acoustic signature.

Now, if I venture out of two-channel, and install the Chase Technologies' passive-surround decoder (a modern version of David Hafler's old Dynaquad system that extracts ambient information from recordings, whether or not they employ surround encoding) and run it at its lowest volume into ceiling-mounted Linaeum LFX surround speakers in the rear of the room, the soundfield expands laterally to spread beyond the outer edges of the speakers on much material and creates an enhanced ambient effect, with improved depth perception across the board – spectacularly on some recordings, such as Elgar's *Coronation Ode* (British EMI ASD 3345, recorded in the gigantic chapel of King's College, Cambridge).

The Alkibiades really shine in several areas. Below 200 Hz or so, there is an airiness and nimbleness I have not heard in other speakers that allows you to hear more deeply than normal into the foundation of musical lines. It is almost as if notes are deeper and better-defined than they are with other speakers. Listen to the organ pedals at the end of the "Saturn" in Holst's *The Planets* [London CS 6734, with the LA Philharmonic and Zubin Mehta], and you can clearly hear the rush of the air in the pipes as a note begins, the modulation of the note and the sound of the vibrations of the air within the pipes as it is being played, and the release and decay as it is let go. This speaker allows you to pinpoint almost the exact fundamental frequency of pedal points, if such is your pleasure. The highs, though not as

1 Flux density depends on several parameters, including the type and strength of the magnet assembly, the number of windings in the voice coil, and the width of the magnetic gap. There is no such thing, really, as a "normal" or "standard" flux density rating, so it can be confusing to delve deeply into this. For the purposes of this discussion, it will suffice to say that the drivers under consideration exhibit a particularly high relative figure, and that these stout ratings allow them to exhibit both a high sensitivity and an exceptional degree of control of cone movement.

extended at the very top (above 14-15 kHz) as some speakers regarded as having flat high frequency response, are exceptionally fast, smooth, and natural sounding, and I am never aware of a separate tweeter playing with the rest of the system. The linearity and tonal accuracy of the midband is so high that it can sometimes be a liability, as when an associated component or a recording is less than first-class.

I believe that true tonal faithfulness to real music has been given short-shrift for some time by many speaker designers. Any number of designs have measured well in frequency response, exhibited excellent phase characteristics, performed miracles with square waves, and so on, but still did not sound like actual music. Not so the Alkibiades. While almost ruthlessly revealing of shortcomings elsewhere in the chain, when the system hardware synergy is right and a first-class LP or CD is spinning, the results are tonally magical.

On Billy Holiday's re-mastered *Lady in Satin* [Classic Records LP CS 8048], I feel as if a time machine had planted her and her orchestra in my room and she were singing in front of me, fully fleshed out, with every inflection, breath, and instrument clearly heard and felt. On the Bach-Stokowski: *Symphonic Transcriptions* [Chandos LP ABRD-1005], the lustrous growl and rosiny bite of the double basses and cellos is rendered as authentically as I've heard. High violins played *en masse* have a thrilling "rushing" sound that raises goosebumps and makes me grin like a Cheshire cat. The rumbling of the bass drum, and its dynamic ebb and flow, is eerily realistic. Vocal music is similarly well served. The creamy tone of the San Francisco Choral Artists on Reference Recording's *Star of Wonder* [RR-21], recorded in the acoustically wonderful Saint Ignatius Church, is convincingly reproduced, with the deep organ pedals in "O Come, All Ye Faithful" cleanly and powerfully resolved. My Mo-Fi UHQR copy of Cat Steven's *Tea for the Tillerman* [MFQR 1-035] sounds so clean and smooth, you suddenly realize that those components you thought were grainy are actually clean – the deficiency was in the disc.

Digital playback, despite often being exposed by the speakers as not as life-like as top analog, can also be compelling. Bob Dylan's *Unplugged* [Columbia CK 67000] boasts some of the most natural-sounding vocals and acoustic guitars I've heard, analog or digital. Through the Hornings, you can, once more, almost imagine he is in the room with you. And big orchestral works are not shortchanged: Hans Zimmer's two masterworks of potboiler music, *The Thin Red Line* [BMG 09026-63382-2] and *Gladiator* [Decca/Universal 289 467 094-2] are reproduced with both nuance and full bombastic glory, as the music demands, with naturally authentic instrumental colors and dynamic footprints. This is also an excellent speaker for modern "Techno" electronic music, hip-hop, and reggae. The tight, coherent, well-defined bass allows you to hear every inflection and dynamic nuance of real and synth drum kits, as one visiting manufacturer demonstrated (quite loud-

ly and mercilessly) when he stopped by with his unusual collection of records.

The Alkibiades, though quite sensitive, are not at all delicate. Tommy Horning recommends that maximum input power be limited to 30 watts (for safety), which translates to about 114 dB at 1 meter. However, a number of owners use big solid-state amps (Krells and Mark Levinsons), and routinely pump 100 watts or so into the speakers. Horning cited one record-shop owner who plays the speakers during exhibitions in his store at over 120 dB for extended periods! I had no need of such capabilities (my room will not support levels much over 90-95 dB before it begins to sound unpleasant), but it is nice to know that the system is rugged.

Shortcomings? Of course. Because the Lowther drivers operate within a narrow magnetic gap, the slightest misalignment of the voice coil there can lead to clicking and scraping noises on hard transients at certain frequencies, in my system usually around 500-1,000 Hz. This does not damage the speaker, but is disconcerting and aggravating. This problem can be fixed, but it involves removing the driver and physically adjusting it by ear with the aid of a sine wave generator. Most consumers wouldn't want to deal with it. Distributors and dealers are supposed to test the drivers for this anomaly before they are bolted into the speakers, since shipping the cabinets without the Lowther units installed until set-up seems necessary if the drivers are to escape the shipping-induced shocks that can cause voice coil misalignment.

The Alkibiades demand sonically excellent power amps. Any thinness, dryness, or grain is magnified to unacceptable levels. I tried them with a Plinius SA-50 class-A solid-state stereo unit as a "control," and this provided the best bass extension and overall linearity. But for the most liquid mids and crystalline highs, tubes worked best. These speakers are so friendly to single-ended triode designs that I auditioned several. Best of the bunch were the Art Audio Jota, the Wyetech Labs Topaz 572, and the Vaic 52B ST. The Manley Labs Retro 300B and Antique Sound Labs ASL-1006-845 monoblocks also worked well. I could easily detect the strengths and weaknesses of each amplifier, although doing that occasionally spoiled some of the musical fun.

Horning's enclosure is not as inert and "dead" as some other modern designs, and occasionally a note will resonate with the cabinet and stand out slightly. But the entire system is designed and tuned take advantage of the acoustical characteristics of the cabinet, so this, for me, is a small quibble. The sound is affected far more by the full-length panel of cloth-covered MDF used as a grille cover. I removed the cover immediately and left it off – in place, it ruined much of the system's openness and imaging. The cover's recessed mounting flange causes audible diffraction effects, and may be the main reason the soundstage has a hard time developing beyond the speakers' edges. I tamed this to a large extent by attaching a few layers of felt to the baffle around the

tweeters, but the effect is still audible. I believe that if the cabinet were redesigned so that the drivers were flush to the outer surface, this complaint would be history. Also, the speakers sound better when the fronts are elevated by about three-quarters of an inch, which allows the two forward-facing drivers to blend better. Horning does not address this in his literature and provides no spikes.

Occasionally, I become slightly fatigued listening to the speakers, but only at high levels. Almost invariably, however, if I play the best software and am mindful of my room's limitations, this is not a problem. But it is a little depressing that some of my favorite music is rendered unlistenable. The culprit here, I think, is both the strongest and the weakest point of the system: the Lowther driver. While extremely fast, articulate, and dynamically unrestricted, it suffers from a couple of audible resonances (see above). Not on all material, and not all the time, but when musical material excites the driver at the 2.5 kHz resonant area or the cabinet sings along with the odd note, the resulting sounds can be a little ugly, as when Kiri te Kanawa hits her highest, loudest notes in her aria from Hermann's *Citizen Kane* [LP, British RCA RL 42005].

These criticisms, however, take nothing away from my enthusiasm. The Alkibiades' overall coloration is extremely low. In day-to-day use, it is just plain *fun* to listen to. Well-recorded material of any genre has a wonderful lustre and sheen, especially on vocals, strings, and brass; the music is rendered with a solidity that is bewitching and emotionally compelling. The system's natural tonal balance, grainless clarity and effortless power, impressive dynamic life and transparency (especially in the midband), articulate and detailed bass reproduction, combined with a superbly open treble and a particularly high level of coherency and continuousness throughout the audible range combine to make it a winner. With a great number of recordings, the speakers just get out of the way. Their particularly high sensitivity and benign impedance curve make the Alkibiades suitable for almost any amplifier, including all but the very smallest SET designs. At $16,000, they represent a considerable investment, but I believe them to be a fair value, particularly in light of the fact that they are limited-edition Danish imports. I will not sell my treasured Shahinians, but I could live happily with the Alkibiades Signature Golds.

SCOT MARKWELL

IMPORTER/DISTRIBUTOR INFORMATION

Luxor Group
9132 Keeler Avenue, Skokie, Illinois 60076
Phone: (800) 795-8975; fax: (847) 329-9207
Source: Distributor loan
Warranty: 5 years
Price: $15,995/pair

ASSOCIATED EQUIPMENT

EAR 864 and Plinius M-16 preamplifiers; Plinius M-14 and "The Groove" phono preamplifiers; Wyetech Labs Topaz 572, Antique Sound Labs ASL-1006-845, and Vaic VV52 B ST SET amplifiers; Plinius SA-50 SS amplifier; Siltech andCreative Cable Concepts by Luxor and Custom Power Cord Top Gun and Top Gun HCFi A/C cords, Super power block A/C conditioner; Arcici Suspense rack; VPI HW-19 Mk IV turntable with JMW Memorial arm & Lyra/Scantech Evolve 99 MC cartridge; EAD Theatre Master DAC, JVC XL-Z1010 CD player/transport; Chase Technologies surround decoder with Linaeum LFX surround speakers; Crown Macro Reference amp for subs

MANUFACTURER'S RESPONSE

…Mr. Markwell has placed the speakers' performance in a carefully crafted and well-defined context that should allow the reader to mentally assess their…capabilities with accuracy prior to hearing them. Far too often, reviews are little more than "raves" or "pans" that do not inform the reader as needed to make sensible audition choices.

Among the criticisms mentioned were front-baffle edge-diffraction effects, lack of front baffle slope affecting time coherency, lack of floor spikes, and cabinet resonances. Both Tommy Horning and myself wish to assure potential listeners that these problems will be addressed before retail introduction of these speakers into the US this winter. Voice-coil alignment of the Lowther driver will be done by dealer technicians trained by the disributor at the time of customer delivery…

DAVID BLAIR
LUXOR GROUP, INC.

Realization of an Audio Vision: Acarian Systems Alón Lotus SE Mk II Loudspeaker

Though the prospect of auditioning any new Marchisotto speaker would entice, given a history of brilliant designs that extends back to his tenure at Dahlquist, what piqued my interest in the Alón Lotus SE Mk II was that it was created to fulfill an audiophile vision that had long defied realization at a "real-world" price – a full-range speaker that could display the unique, and seldom-heard, virtues of low-output (say, 10 watts a side), triode, single-ended amplifiers.

I was also promised a bevy of triode amplifiers to use with the Lotuses – another incentive. Several months earlier, David Berning told me he'd designed a 5-watter that might work with minuscule British bookshelf speakers. His goal was to create a wholly involving amplifier that would nurture delicate musical signals. I mentioned that to Carl Marchisotto, who agreed that "one of the negative consequences of large amplifiers is a loss in delicacy." He had chosen the name "Lotus" for his new speaker, he said, in homage to the Japanese who "in some ways are way ahead of [Americans] in recognizing that little amplifiers have admirable qualities that big amps lack."

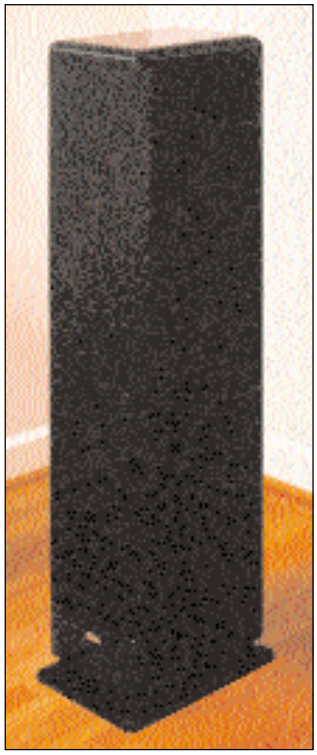
Marchisotto's goal for the Alón Lotus, his vision, was to create a speaker system to display the virtues of small low-output amplifiers without being limited by the amps' shortcomings. The Lotus aims at performance that rivals what one hears from audiophile-grade speakers driven by high-output push-pull amplifiers: high volume; deep, fulfilling, solid bass; believably sized images; and "comfort" in large rooms.

I have auditioned the Lotus SE over an extended period, mated to four quite different amplifiers: Art Audio Diavolo; EAR 834 Integrated; Manley Stingray Integrated; Viva. The most "powerful" of these units make 50 watts a channel, while the Diavolo and Vivas produce 13. I have used two listening rooms – an 11 x 20-foot basement room with an 8-foot acoustic-tile dropped ceiling, and my current 13 x 21-foot "tower" room with a drywall/plaster ceiling that slopes from 8 feet at the speaker end to 15 feet behind my chair.

The Lotus SE is a "classic" Marchisotto design. It employs his sculpted open baffle on which the 1" aluminum dipole tweeter and 5.25" tri-laminate cone, cast-frame Alnico (cobalt) magnet midrange driver are mounted. This baffle, so nicely finished I once mistook the wood for some exotic polymer, mounts above a sealed enclosure ("infinite baffle") that holds a special 14-ohm impedance 8" long-throw woofer. (Another version of this speaker, for high-output amplifiers, carries Acarian's standard 4-ohm impedance 8" woofer.) Each speaker, covered in black "sonically transparent" cloth, weighs 70 pounds and measures 49" x 9" x 13". Each has a dedicated external crossover (passive, at 400 Hz and 3,500 Hz). This is to facilitate upgrades and modifications, if such are offered, and to simplify bi-amplifying. The unit is tri-wired, and accepts Acarian's Black Orpheus cable without protest. Extensive listening confirmed the manufacturer's assertion that the system's response extends from 35 Hz to somewhere beyond my ability to hear.

With those big black boxes (the crossovers) sitting behind, attached with a mess of wires, the speakers make a profound visual statement. When mated to any amplifier meant to work with them (all of which will display tubes and transformers), the Lotus speakers will attract enough notice to satisfy any audiophile ego. No one who buys them will care if they displace the sofa, or a chair or a table, since these are speakers for those whose passion is music and who are happy to give priority in room decoration to audio requirements.

The biggest surprise of my experience with the Alón Is was that their much-heralded performance in the bass, though every bit as good as rumored, was not what I found most endearing. That experience prepared me to approach the Lotus without preset expectations. Nevertheless, I could not resist addressing the design challenge Marchisotto had set for himself, so early sessions found me listening to rock LPs, to see if a 13-watt amp could make convincing sound. Yaz'



Don't Go [Mute Sire 29886] can sound anemic or it can overwhelm, and with the Lotus/Diavolo, it surpassed all prior auditions not merely in the sheer power of the presentation, but also in the size of the images. The image was proportionate to the stage, unlike that crafted by some mini-monitors, which create a large soundspace filled with tiny images, or vice versa. This was all coherent.

No matter what amplifier or source I used, the Lotus delivered bass, including *low* bass, that defied criticism. The Vivaldi *Lute Concertos* LP [Hungaroton SLPX 11978] delighted me with the panoply of detailed delicate images, and seized my attention with bass that was solid, full, rich, warm – characteristics this disc had never before revealed to me. On the magisterial Mussorgsky *Pictures at an Exhibition* [Reiner; RCA Victrola VICS 2042], the bass was always explosive, but now genuine waves of sound rolled over me. There was a presence, a physical dimension that reminded me of old Audio Research-driven systems. The great Berglund/Bournemouth Shostakovich *Eleventh* [EMI SLS 5177] gave plucked bass entries at *ppp* that were felt as much as heard. I was able to hear clear differences in volume as the bass players supported the orchestra, rather than an indistinct indiscriminate lump of sound. On Klemperer's Mahler *Resurrection* with the Philharmonia [EMI CDM 76962 2], the gentle arc of basses and celli spread before me made the most beautiful, rich, warm, mellow tones – I found this so riveting that I became fixated on the quality of the bass and ignored the distinctive performance.

Time and again, the Lotus allowed me to hear bass lines on familiar discs that previously had gone unnoticed. With the Manley Stingray, the old (1961) Fleisher/Szell Beethoven *Emperor* [Columbia SBK-60499] revealed subtle bass-drum accompaniment to the piano that I had never heard on disc. Similarly, the Weavers *Reunion* [Vanguard VMD-2150 CD], a recording well-known for subtle bass thumping behind the singers on the Carnegie Hall stage, now displayed bass support lines I'd never known were there. Thus, at high or low dB, with in-your-face slamming rock bass, or subtle low-level support lines, Marchisotto's Lotuses not only met expectations about bass performance, but surpassed them.

Satisfying, even superlative, bass would not fulfill the design goal Acarian established for the Lotus SE. The whole point of designing a speaker to be used with low-power single-ended triode amplifiers was to take advantage of the way such amps are said to nurture the delicate side of music.

From tubes one expects (hopes) to hear clarity, openness, a rich harmonic structure, ethereal beauty, accompanied by fullness and body. In an ideal audio world, one would hear detail without grain, clarity without edge. On the Beethoven *Fifth* [Hogwood; L'Oiseau Lyre 417605-2], the sound was dry, clear, tight, lean, bright. I noted incredible detail. The sound was clean, etched, with a hint of edge, but after all, this was Hogwood and the Academy of Ancient Music on period instruments. To consider a different sound, I auditioned the Persuasions' *We Came to Play* [Collectables COL CD 5234]: Again, the sound was pure, vivid. Lawson's highs were gossamer-covered. And for yet another type of musical experience, as Tate and the Dresden traversed the Schubert *Great C Major* [Berlin Classics BC 1083-2], I heard vivid bloom – rich, dark, harmonics. The sound had a solid, hefty quality, a fullness. And finally, through the Lotus speakers, my cherished Rutter rendition of the Fauré *Requiem* [Collegium COL 101] transported me to a state of audio ecstasy. The delicate "Sanctus" was appropriately heavenly, ethereal, soaring, angelic. Caroline Ashton's "Pie Jésu" was otherworldly, her modulation from *pp-ppp-p-pppp* rendered perfectly. The sound overall had an airiness I cannot recall hearing before. Yet it was at the same time so clear, defined, precise, etched. The delicacy of music was what the system captured.

Yet to highlight the Lotus's excellence with music that is essentially "delicate" would hardly do the speakers justice. During a recent listening session, I revisited an old favorite performance, the Jocum/Berlin 1967 recording [DG 449 718-2] of the Bruckner *Fourth*. Cataclysmic swings in volume are the essence of Bruckner, and few amplifier/speaker combinations can come close to recreating the experience of a live performance. In my room, this dynamically compressed recording, through the Lotus/Viva combination, displayed a dB range so wide, and so free of restriction or congestion, that, days later, the experience lingers with me. Bruckner, a church organist, strove to create massive cathedrals of sound. The Lotus is the first speaker in my experience to make me feel as if I were hearing a cathedral (as opposed to a rural church) during a recording of Bruckner. The speaker and amp together crafted a cavernous space, and filled it with glorious, rich, resonant sound.

Poulenc's *Concerto in D for Two Pianos* [Olympia OCD 364] poses a similar set of challenges, for the composer's jazz-inspired score is full of sudden percussive surprises that demand speed, power, and tonal faithfulness beyond the capability of most components. The Lotus/Viva combination again captured the "snap" of the percussion entries with a precision that was as startling as the music itself, and gave each instrument its own special tonality. And all accomplished under severe demands for instant shifts in volume as the score called for bursts or snippets of sound calculated to amuse, shock, jar, or jolt. The Lotuses are sensational at sonic extremes.

Among audio's greatest myths is that all electronics sound the same and that it is the loudspeaker that "shapes" what one hears. Hence, some argue, speakers are the most important audio component. Of course, the opposite is closer to, but far from the whole, truth. Speakers are windows through which our ears perceive what has come earlier in the audio chain. They ought to be "transparent," but seldom are, since the load they present to amplifiers creates a host of interactions. What is perhaps most remarkable about Marchisotto's Lotus SE is the degree to which it not only works well with a variety of quite different tube amplifiers, but allows each to display its own inherent character. It was easy to distinguish among the amplifiers I used with the Lotus speakers. Yet each performed beautifully, and I believe displayed its signature traits faithfully. Through the

Lotuses, the Diavolo and Viva amplifiers performed at a level that equals the best I have heard. The EAR and the Manley never made me think I was hearing cutting-edge amplification, and neither of those integrated amps makes any pretense at providing that level of performance. But I doubt that either would perform better were it connected to a different speaker. My sense is that the Lotus SE will not limit most tube amplifiers, but will allow exotic SETs to display all the virtues associated with such designs. This is a must-hear speaker for all who love music and value faithful reproduction. Heard when driven by a single-ended triode amplifier, the Lotus will illustrate why so many music lovers consider the triode the source of musical truth.

AARON SHATZMAN

MANUFACTURER INFORMATION

Alón by Acarian Systems
181 Smithtown Blvd., Ste. 104, Nesconset, New York 11767
Phone: (631) 265-9577; fax: (631) 265-9560
www.alonbyacarian.com; alon@compuserve.com
Sensitivity: (2.82 volts) 90 dB @ 1M (89 dB for 4-ohm version)
Source: Manufacturer loan
Price: $3,700/pair

ASSOCIATED EQUIPMENT

Berning TF-12 preamplifier; Art Audio Diavolo, Viva Mono, Manley Stingray, EAR 834 amps; JVC XL 2050 CD player/transport; Metronome Technologie DAC; Oracle Delphi Mk II turntable fitted with Magnepan Unitrac arm and Crown Jewel phono cartridge; Acarian Black Orpheus cable configured for tri-wired application

MANUFACTURER'S RESPONSE

…Four different amplifiers, two different listening rooms, and a variety of source components means a great deal of effort on the part of the reviewer in order to come to grips with the sound quality of the speaker under review. We appreciate this level of commitment and integrity on the part of Aaron Shatzman and *The Absolute Sound*.

I would like to shed some light on the two versions of the Lotus SE Mk II. We developed an 8-inch 14-ohm woofer for use with low-power amplifiers. Typically, SET amplifiers of low power operate with little or no feedback and exhibit a relatively high output impedance. This means we do not have a lot of current output or loudspeaker damping capability to rely on. The 14-ohm woofer will have about three times the damping and control when compared with our 4-ohm woofer, when driven by a low-power SET amp (say, 10 watts). However, life is not that simple in the world of High End audio. So what happens when you connect the 14-ohm Lotus to a high-power, high-damping amplifier of either tube or solid-state construction? Generally, over-damped bass and a thin dry sound. This is why we offer the Lotus with the 4-ohm woofer – for those with higher power feedback amplifiers. This is a no-cost option that is selected at time of purchase through one of our authorized dealers.

CARL MARCHISOTTO
PRESIDENT, ACARIAN SYSTEMS

Green Mountain Audio Continuum 2 Loudspeaker

Your assignment, class, is to take the common multi-driver dynamic loudspeaker and redesign it. Think "out of the box" – consider how you would eliminate boxy colorations and resonances that color the sound. Make it a full-range loudspeaker and add some user-adjustable features to tailor its response to the room. Before you begin, let's take a look at some of the speaker designers who have addressed this problem in the past.

In 1973, Jon Dahlquist mounted the drivers of the DQ-10 in a "phased array" utilizing an open architecture, with a rectangular group of staggered drivers (for time alignment) attached to small baffles on top of the bass enclosure. In the late Seventies, Richard Vandersteen went Dahlquist one better and designed his Model 2 with its drivers arranged vertically in their own minimal "baffle-less" enclosures. In the design for his original Wamm in 1980, David Wilson made the multiple-driver arrays (including electrostatic tweeters) adjustable to the listening position. B & W later put the three drivers of their 801 in individual stacked enclosures, with the flexibility of adjusting the axis of the tweeter enclosure relative to the bass and midrange.

Creative Design

Now let's take a look at Roy Johnson's design for Green Mountain Audio. Here we have a 14.5 x 20.75 x 27-inch bass-reflex style enclosure housing a 12-inch high-compliance woofer. On the top of the box at the rear is a 25.25-inch aluminum pole sticking up. Mounted on it, with a sliding collar, is a horizontal, 13-inch pole pointing forward. Attached to this are two more collars, one connected to the tweeter enclosure and the other to the midrange enclosure. Designer Roy Johnson has tailored this system for maximum flexibility: Each of the two smaller drivers can be moved up and down or forward and back, to achieve the best integration of sound at the listening position. The whole assembly swings inward or outward on the vertical pole for toe-in. When the adjustments are completed and all the clamps and the collars are tightened, you have a rigid structure optimized to the location of *your* ears.

Set-up – The Devil in the Details

As you might imagine, with such a design, set-up is critical. The C-2s require more user adjustment and tweaking than most. I advise you to begin by placing them where you would normally in your room, well away from the walls, and then adjust them forward or back a few inches at a time to get the best bass response. Once you have the bass sounding right, you can begin the more critical midrange and tweeter adjustments, which require two people. First, the height of the horizontal pole (supporting the midrange and tweeter) will have to be adjusted up or down relative to your ear-height when you are in the listening position. The midrange driver will end up at about ear height. Then, using the distance from your ear to the center of the woofer as a reference length, you will adjust the midrange and tweeter backward or forward to the correct distances from where you sit. Distances are specified to one-sixteenth of an inch, so moving a driver a very little can make a difference (not to mention if you move your head forward and back to the music).

Roy Johnson, designer

Driver Array

The small tweeter and midrange enclosures are made from high-density cast marble to reduce resonances and are shaped to minimize diffraction. The enclosures are connected to Sorbothane pads, through which they are mounted to the aluminum poles to isolate them from any vibrations above 10 Hz. The tweeter is a 1.1-inch Morel cloth dome and the midrange driver is 5.25-inch Audax Aerogel with a phase plug. The bass cabinet is constructed from 1.16-inch particle board, which Johnson says is more rigid than MDF. It features special corner joints and an internal brace of an unusual shape to create pressure cancellations within the box. The feet are also a little unusual – they are made from three 1.8-inch wooden dowels that extend up through the bottom of the enclosure and are secured internally, acting as a type of resonance control.

Another unusual feature is the large (4 inch) bass-reflex port (Aeroport) that vents out of the top of the woofer cabinet. It is tuned to 34 Hz and put where it would not interfere with the woofer's direct output. The C-2's bass response is rated as down 3 dB at 30 Hz. The speaker uses simple first-order crossovers at 270 Hz and 3 kHz with as few parts as possible. Phase accuracy is one of the primary goals in the design. The speaker's impedance curve is spec'd at a pretty flat 7.5 ohms, with sensitivity rated at 90dB/1watt/1meter. The owner's manual is thorough in its discussion of speaker set-up, placement, and room acoustics. Although the curved speaker grilles are designed to be as acoustically transparent as possible, I did most of my listening without them. – MK

I set the C-2s up using the detailed instructions from the manual – and was not impressed with the resulting sound. The drivers did not seem to blend completely; at some frequencies, the individual drivers called attention to themselves, especially the tweeter, and in other frequency bands, information was missing. Some weeks later, Roy Johnson visited and fine-tuned the speakers by ear, significantly improving driver blend and smoothing frequency response. Even so, the overall coherence could have been better; I still heard the tweeter occasionally, and there was some roughness in the upper frequencies and a little nasality in the midrange.

Recently, Johnson revised the set-up measurements for the C-2. With the new alignment, the midrange driver is moved back a fraction of an inch and the tweeter is back almost two inches. Again, this brings the C-2's sound toward greater coherence, with a smoother and more uniform response from the three drivers. Johnson has now cured most of the problems I heard in the C-2s (with no feedback from me, I should add) by making these adjustments in the relationship of the drivers to each other and the listening position.

The most difficult part of the C-2's set-up process is measuring the exact distance between your ears and the drivers. It is difficult to measure distances this far with the tape up in the air, at an angle, to a sixteenth-inch accuracy. I recommend using two sets of strong arms – and check your measurements a couple of times.

Impressive Sonics

This speaker's performance is a little difficult to describe. All loudspeakers have their own character, but good ones don't call attention to themselves. By that measure, the C-2s are a success. Tonally, they are neutral, balanced, and without serious problems, once they are properly set-up.

My first impression of the reconfigured C-2s was one of an expansive openness, which the best large box designs can only approach. With the tweeter and midrange in small rigid enclosures suspended above the bass box, they are like mini-monitors in their ability to disappear and provide a deep, wide, open soundspace, completely detached from the speakers. The images float in space with excellent dimensionality and in good relief. This is demonstrated well on Patricia Barber's latest live CD, *Companion* [Blue Note/Premonition 7743 5 22963 23], which places you inside the intimate environment of a small club. On "Touch of Trash," there is a cacophony of percussion instruments, some of which are moving around the stage. These come through the C-2s in very lifelike fashion as their clanging and ringing punctuate the open space. On speakers without such precise phase coherence, the fundamentals and overtones of these sounds are not so well connected and the images not as clearly located on the soundstage.

Years ago, I heard Jon Dahlquist give David Wilson some speaker design advice: "If you can get the transition from the midrange to the bass right, the rest is easy." The lower midrange and mid-bass coherence of the C-2 seems to be just about right. It is neither too lean and dry nor too warm. Vocalists, both male and female, have a good balance between their upper and lower ranges. The first movement of *Trittico* [RR 52CD] features some dynamic brass in a small orchestra. Through the C-2s, the trumpets have all of their bite, yet retain their body and size through the lower mids, creating a realistic sense of the instrument. The tympani at the opening of the second movement really come to life through the C-2s, thanks to their response down into the second octave. You need to turn up the volume a bit to get these speakers to sound their best; then they are impressive on music with wide dynamics. They like to be pushed hard.

One of the areas where the Continuum 2s fall short of the best is in revealing inner detail and the tonal colors provided by subtle harmonic overtones. Listening to "Counting on You" from Tom Petty's *Echo* [Warner Bros. 9 47294 2], I marveled at the separation between the rich harmonic textures of Benmont Tench's keyboard work and the guitars. But some of the lower-level overtones on both instruments were missing through the C-2s. On Barber's *Companion*, I noticed the acoustic bass was not as well defined as I have heard, missing some of the detail of Michael Arnopol's fingering, although it goes deep and provides a good foundation for her music. And on *Trittico*, the brass, chimes, and bells lose some of their upper-frequency harmonics and air. This loss of inner detail seems to be consistent throughout the speaker's range – and is not unusual for a loudspeaker in this price range. There are speakers that will allow you to gain a bit more of the last 10 percent of the music, but these generally cost two or three times more. The C-2s add nothing objectionable to the music and omit just a little. This is what makes their character difficult to describe.

Colorado Shoot-Out

During the time I had the C-2s, I also had a pair of Dunlavy Alethas, which, at $5,995, are priced similarly. Both manufacturers are based in Colorado Springs, which has nothing to do with the fact that the two speakers are quite neutral and their performance is close in many ways. The Dunlavy Aletha is one of the most coherent multi-driver dynamic designs I have heard. It is also a timbral-accuracy champ, seamlessly integrating detailed instrumental overtones with the fundamentals, especially in the upper octaves. The Continuum 2's three drivers do not blend as coherently or have quite the tonal purity and inner detail. However, the bass goes deeper than does the Aletha's in my room. The C-2s also provide a little more dynamic life and excitement across the board, particularly at *ff* and above. In addition, they are more open, their sound is a little more forward, and they provide greater three-dimensionality to images on the soundstage. You trade a little timbral accuracy and inner detail with the Alethas for the openness, added bass extension, and excitement of the C-2s. People often ask which loudspeakers are better for rock or classical music. Usually I reply that neutral and accurate speakers will serve best for *any* type of music. But in this case,

I would choose the Alethas for smaller classical and acoustic music, where timbral accuracy is of vital importance, and the Continuum 2s for rock and larger scale music.

Graded on the Curve

Once a loudspeaker designer deals with the math, physics, materials, electronics, and other scientific parameters of design, the real work begins – the *art* of fine-tuning the speaker to make it sound like music. Roy Johnson seems knowledgeable and capable in both areas. With these speakers, the final set-up by the buyer makes the difference between achieving a sound that is so-so and realizing their full musical potential. Once the set-up is right, these speakers distinguish themselves by their open, dynamic sound, which is a little forgiving and emphasizes musical enjoyment over the last bit of instrumental detail. When I switched from the Continuum 2s to my reference Thiel CS-7.2s, I missed the C-2s' expansive openness and the way they floated the images in space.

The Continuum 2 loudspeaker utilizes a unique design that eliminates many of the problems inherent in standard multi-driver dynamic designs. I would give Mr. Johnson a solid "B" for his efforts, with points deducted for lack of resolution. To put this in perspective, the Thiel CS 7.2 gets an "A" and the Dunlavy Aletha an "A-" because of its bass deficiency. Nice work, indeed.

MICHAEL KULLER

MANUFACTURER INFORMATION

Green Mountain Audio
111 South 28th Street, Colorado Springs, Colorado 80904
Phone: (719) 636-2500; fax: (719) 636-2499
Source: Manufacturer loan
Warranty: 5 years, parts and labor
Price: $6,500/pair (cherry finish standard)

ASSOCIATED EQUIPMENT

Digital Front End: Theta Data Basic II Transport; Audio Alchemy Pro-32; Sonic Frontiers SFD-2 Mk II D/A converter; Line Stages: ARC LS-16; Joule Electra LA-100 Mk III; Reflection OM-1; Amplifiers: Manley Reference 240/100; Conrad-Johnson SA-400; Edge M-8; Cables: Digital – Kimber/Illuminati Orchid; D-60 Interconnects – Nordost Blue Heaven; Cardas Neutral Reference. Speaker Cable – Nordost Blue Heaven; Accessories: ASC Tube Traps, Room Tunes; Shun Mook Room Tuning Disks; Black Diamond Racing Shelves and Cones; VPI Bricks; Seismic Sinks; Bedini Ultra Clarifier; Monster Reference Power Center HTS200

MANUFACTURER'S RESPONSE

The tape does require two people and steady hands, and we included "the Stick" to mark your ear's position, using a tripod. This is the only complication to the set-up. You report no placement or equipment difficulties – our experience as well. The final settings were correct. Using them, the tweeter arrives just 40 microseconds sooner than MK's second setting; the mid, four microseconds later. As you report, such short timing differences are audible, when freed from cabinet reflections. We did go through a period determining if one might benefit by altering these small intervals. Thanks, RZ, for trying the new bass damping for the one note.

C-2 tonal deviations are less than 1-dB ripples; slightly audible because they are not smeared by diffraction and phase shift. Flattening them further wasn't worth the loss of dynamics, imaging, and coherence.

Detail is always enhanced by tweeters leading in phase, true of all the speakers RZ mentions, except the electrostatic – detail is its strong suit. That you report the small lack of detail in the C-2 is uniform across the spectrum indicates to us system characteristics, not a speaker dysfunction. More detail appears everywhere with system fine-tuning. Finally, the impression of the speaker needing to be pushed a little hard does change after extended break-in.

Hint: If Mercury's Samuel Barber classical re-issue and the All-Star Percussion Ensemble from Acoustic Sounds CDs sound clear and involving, you've got a fine system. Here [in response to a reader's suggestion in Issue 124, lead letter "Manufacturers and the Voicing of Their Components"], is Green Mountain's reference equipment: Digital – Birdland; CEC; EAD; Theta; vanAlstine; Illuminati. Analog – Micro-Seiki with van den Hul/Rowland strain gauge; VPI with Graham and Crown Jewel; Well-Tempered with Grado; half-track original masters on Ampex, Studer, Teac. Electronics – Air Tight; Audio Note; EAR; Edg; Manley; Presence Audio; Reflection; Rowland. Cables: Audio Magic; Kimber; Sahuaro; Wireworld. Power – vansEvers.

ROY JOHNSON
GREEN MOUNTAIN AUDIO

ROMAN ZAJCEW COMMENTS

As Mike Kuller notes, setting up these speakers is troublesome. The tricky part of the alignment consists of making three mid-air measurements with a tape, one from the ear to the woofer cone, one from the ear to the phase plug of the midrange, and one from the ear to the soft dome of the tweeter (holding a tape measure directly against a soft dome tweeter is not a confidence-building exercise). These lengths are typically greater than 10 feet, and must be accurate to the nearest one-sixteenth of an inch. Designer Roy Johnson has recently promised a spreadsheet into which the listener could enter a listening height (accurate to one-eighth inch) and a distance to the speaker cabinet (accurate to one-half inch); the result will be exact and easy set-up instructions for each speaker.

The Continuum 2s are sensitive to driver alignment. When I received the speakers, there were two sets of installation instructions – Roy Johnson's initial set-up and revised instructions – and I did not know which was which. Before getting clarification, I listened to the speakers in each configuration. I found that moving the tweeter as little as a quarter-inch relative to the woofer was clearly audible (the woofer to midrange/tweeter alignment I found less critical), and the second set-up suggests moving the tweeter a whole inch! With initial set-up, the speakers sounded quite lifeless, except for occasional peaks of excess treble energy. With the revision, the crossover region between the midrange and tweeter (3 kHz) developed an unpleasant peak that was evident on some recordings and the tweeter appeared to be much farther away from the listener than was the midrange. When I called Johnson to discuss this, he said that he had just formulated a third set of instructions. My listening conclusions are based on these final instructions (MK never got to listen to the speakers set up

according to this third set of instructions).

During the latter part of my time with the speakers, Roy Johnson sent me some additional stuffing material he now provides, to put into the speaker through the port to cure a "one-note bass" problem that was evident on some CDs, such as the double bass on Diana Krall's *All For You*.

After all the fine tuning, I had a speaker that sounded quite different in some respects from the one MK listened to. Despite the differences, though, I reached many of the same conclusions MK did.

The integration of drivers is extraordinary. One of my torture tests for this characteristic is "You Look Good to Me" from the Oscar Peterson Trio's *We Get Requests* [Verve V 8606]. The bowed bass moves quickly up and down its range; some of the notes are shared between the woofer and the midrange, and some are exclusive to the midrange driver. With most non-electrostatic speaker systems, you can hear the tonal differences – the woofer seems to be cut from a different sonic cloth. Not so with the Continuum 2s; the transition was seamless. The midrange-to-tweeter transition was also well handled.

These speakers can handle enormous dynamic peaks without strain (in order to take advantage of this I had to hook up my Sunfire amplifier – my others were driven into clipping before the Continuum 2s even started sounding strained).

As did MK, I found that the speakers lacked the final word in inner detail – they are no slouches in this respect, but they are not on a par with the latest dynamic-driver designs from Harbeth, Dali, or von Schweikert (or my reference speaker, the electrostatic AudioStatic DCIs). They have superb imaging and soundstaging capabilities, with the final set up. The reproduced soundstage was admirably deep and wide.

The speakers stray a bit from tonal neutrality. There is not quite enough energy in the warmth region and there are subtle deviations through the whole frequency range. Designers who use first-order crossovers (especially in two-way or three-way designs) face problems in getting the ultimate in flat frequency response and tonal neutrality – each driver has to cover such a wide frequency range that the designer sacrifices some flatness for wider frequency response. Johnson has chosen to go for maximum coherency and phase alignment with his design, and the colorations are pretty minor (to his credit, he has not implemented the quite-common frequency response dip at 1 to 2 kHz, which makes many bright recordings a bit more tolerable).

The timbral balance of these speakers varies enormously with listening height. Stand up (or even slouch badly), and all the magic is gone (being able to adjust for listener height is a nice feature). This phenomenon is common to some degree with all non-line-source speaker systems, but the Continuum 2's first order crossovers, combined with its having only three drivers, makes it particularly vulnerable to listening-height variations.

This is a serious speaker design. Once I had them set up correctly, I enjoyed them. They are capable of producing a better soundstage than most mini-monitors; they are remarkably coherent; they are relatively neutral; they have great bass extension and will play as loudly and brashly as you like.

Lamm M1.1 Monoblock Amplifier & L1 Line-stage Preamplifier

In an interview a few years back with a Russian High End audio magazine, Vladimir Shushurin, proprietor and engineer of Lamm Industries, said, "From my point of view, the ideal audio review is when the reviewer has nothing to say." After a few months of listening to his M1.1 amps and L1 line-stage preamp, I'm tempted to take his cue and call it a night. For these pieces of gear – to some degree separately, but especially together – capture music of all sorts, in all aspects, so wonderfully, so truthfully, that there really isn't much to say except, "You like music? You'll like Lamm."

There are many pieces of audio gear that make you sit up and go, "Wow, listen to that bass drum," or "Jeez, I've never heard that tiny bell over in the corner before," or "Damn, I can understand every word Rickie Lee Jones is singing." With the Lamm gear, you hear all these things – no less than with something that makes you go "Wow" – but they don't stick out from the rest of the music. They're just another part – a clear, vital, effortlessly erupting part – of everything else that's going on.

When you go to a concert, you don't note how deeply the bass goes or how the singer sounds like she's in the same room with you. Instead, you marvel at how deftly the bassist plays or how the singer's voice makes you shiver. That's the difference, quite often, between going out to hear live music and staying home to have a hi-fi "listening session." And it's the difference between listening to Lamm's gear and listening to just about anything else I've run across.

The M1.1 is a pair of monoblock amps, pumping out 100 watts of Class A power to 8 ohms or 4 ohms. (They can also drive speakers below 1 ohm, though not in pure Class A.) They're powered mainly by MosFETs, except for a single 6992 triode tube in the second stage of amplification (which Shushurin considers the most important). The L1 is solid-state except for a single tube powering the voltage-regulator. And yet, these units give up little to pure-tube amps in the way of depth or dimensionality, or to pure-transistor amps in the way of detail, definition, dynamics, or extension of high and low frequencies. I'm not talking about running down a checklist of audiophile categories. I'm talking about the stuff that makes the music come alive.

On "There's Never Been a Day," from Kendra Shank's luscious *Afterglow* [Mapleshade 02132], listen to drummer Steve Williams swirling his brushes around on the snarehead. With many excellent components, the whooshing is identifiable as brushstrokes (as opposed to a vague hiss); but with the Lamms, I can also hear the 4/4 time he's keeping, the subtle accents on the shifting beats, and how those accents shape his interplay with pianist Larry Willis.

Something similar happens with Analogue Productions' LP-reissue of Bill Evans' *Waltz for Debby* [APJ 009].[1] I hear, much more than before, the subtle accents in Evans' piano playing and the

way bassist Scott LaFaro embellishes, and drummer Paul Motian plays off, those accents. In other words, the Lamms let me hear this group create music as a cohesive, interacting trio, not just as three musicians. The dynamics of Motian's stickwork or brushstrokes, the clarity of LaFaro's bass, are also more lifelike than I've heard before. By "dynamics," I mean dynamic *range* (the difference between the loudest and softest sounds) and dynamic *contrasts* (the subtle gradations marked by the smallest thrust of a violin's bow, the slightest pressure on a piano's pedal, the hint of modulation in a singer's voice). On both measures, the Lamms perform superbly.

Or check out "Maqam Hedjaz," from the Eduardo Paniagua Group's *Danzas Medievales Espanoles* [MA Recordings M034A], which features an oblique flute and a huge hand drum called a *bendir*. An excellent stereo system can tell you how hard or soft, and exactly where, the player is hitting that drum. But I've never heard just how these differences alter the pitch and tone-colors of the drum, or how they affect the duration and the specific overtones of the reverberation in the church where the disc was recorded.

Well, I could go on. We all have our "reference discs" that we fetch out to test how a component handles this or that aspect of sound. The Lamms aced them all. On Count Basie's *88 Basie Street* [JVC XR 00210-2], the hammer and the reverb of the piano, the muted trumpet in the back, the sumptuous saxophone section across the wall, the slap and sizzle of the trapset – they're all there. On KD Lang's *Ingenue* [Sire/Warner Bros. 9 26840-2], do the drum-thwacks make my eyes blink, can I distinguish the different kinds of guitars, can I see all the background singers, are the diphthongs enunciated when she sings the line "beneath my skin?" Yes, yes, yes, yes. On the Reiner/Prokofiev *Lt. Kije* [RCA LSC

1 The L1 has no phono stage. For LPs, I plugged the Audible Illusions Modulus 3a (using the Tape Output) into the L1's Direct input.

2150, especially Classic Records' 45 rpm reissue], the mournful double-bass solo, the silky violins, the overtones of the reeds, the cymbal crashes that billow forth a gigantic cushion of air – *oh*, yes.

The only area where the M1.1s fall short is in very loud peaks, for instance the climactic moment toward the end of the first movement of Gorecki's *Third Symphony* [Nonesuch 799282-2]. It sounds a little bit strained, a little bit tightened. This is where I could use 200 or 300 watts per side, at least with my Hales Transcendent 5 speakers, which have a rather modest sensitivity (87 dB). Still, the Lamms stir up a bigger storm than their 100-watt rating suggests.

I'm also left wondering a bit about the M1.1's speed at very high frequencies. I've heard faster, higher amps, but the Lamms are no slouches in this region, and what goes on up there is so supremely well integrated with everything else. One note: With certain preamps (in my experience, the Krell KRC-HC), the M1.1s are particularly constricted in those ethereal realms. However, with others, for instance the Audible Illusions Modulus 3a and the Lamm L1, the noose not only loosens, it falls away.

I have not drawn much distinction between the sound of the M1.1 and that of the L1, because they're pretty much the same. They both impart little color of their own, besides this slight (and I do mean slight) darkening of the highest frequencies. They seem to pass along the character of the recording and the front end (turntable, CD player, cable, whatever) that they are amplifying. For instance, when I replaced my Nirvana SL-1 interconnect with a sample of Nirvana's new SKGs, another veil was stripped away. Everything, which had been vivid enough, was more vivid still, though not at all etched or electronic-sounding.

Finally, tonal colors, ensemble blooms, seamlessly wide and deep soundstages, images right there, behind, in front of, or to the left or right of, the speakers (depending on how the recording was made) – the Lamms are spot-on in all these aspects, too.

So, what's going on here? Shushurin says he builds his equipment to fit a mathematical model describing how the human ear responds to sound pressure. He devised this model in the Soviet Union, when he was working in the military avionics industry, which had civilian applications in audio and video (though, for economic and technical reasons, he couldn't test the theory till he came to the States). In our talks, he did not delve into the differential equations involved (and I wouldn't have understood them, if he had), but apparently they had a profound implication for his design of audio equipment. One observation was that, whatever distortion an amplifier has, it should be the same at all frequencies and all levels of power output. He has designed his circuit-topology to conform to this rule and built the gear with components of the most exacting tolerances to ensure the least possible deviation. I cannot evaluate his argument (which I've oversimplified). But the owner's manual for the M1.1 contains a set of measurement-curves, taken by an independent lab, that are flatter than any I've ever seen and consistently flat at various frequencies and watts. Slew rate, rise time, and other specs are similarly about as fast as they come.

Another novel aspect of the M1.1s is a switch that lets you match them to a speaker's impedance. Tube amps with output-transformers have such a switch, but nobody has ever stopped to think it would matter in solid-state. Well, it does matter. I listened to the Hales first with the 1-6 ohm option. Switching to the 8-16, I noted that the quality changed noticeably: less air, less dimension, less clarity at the frequency extremes. The point of this switch is to let the amps pump 100 watts of pure Class A power into 8 or 4 ohms. Without the switch, it would, by necessity, deliver 100 watts of Class A into 8 ohms, and 200 watts of Class AB into 4. To Shushurin's mind, 100 watts of A sounds better than 200 watts of AB.

It is also worth noting that the amps are ruggedly built. The toroidal power transformer is suspended in a special capsule, making no mechanical contact with the chassis and absorbing mechanical vibrations. There are two sets of brass, gold-plated, six-way binding posts (for bi-wiring). There are single-ended and balanced inputs (they sound the same). On-off switches are situated in the back, which can be a pain (sitting idle, they consume 300 watts of electricity each – warm-up takes about 45 minutes). However, the L1 has a switch and a remote wire that lets you turn the amps on and off from there.

The L1, besides boasting similar specs, has single-ended and balanced outputs, and seven pairs of gold-plated inputs, one of which is labeled "Direct." This bypasses all the switches (for phase-inversion, stereo-reversal, tape-monitoring), except for the volume knobs. The difference is so dramatic, in fact, that I recommend using the Direct input for everything you feed into this thing, even though it's a pain to get behind the unit and switch cables. One minor complaint: The Mute switch is a waste; unless you turn the volume all the way down first (making Mute moot), it makes a loud clicking noise that sometimes shuts down the amps and the preamp.

A final note. At nearly $16,000 a pair for the amps and $7,000 for the line-stage, these are expensive pieces. But if you're interested in what hi-fi can do, in how close we have come to that elusive absolute, you must at least listen to the Lamms.

FRED KAPLAN

MANUFACTURER INFORMATION

Lamm Industries
2621 E. 24th Street, Brooklyn, New York 11235
Phone: (718) 368-0181; fax (718) 368-0140
E-mail: lammaudio@juno.com
Price: M1.1 amps – $15,890/pair; L1 preamp – $6,990

SPECS

M1.1 amps
Output Impedance: 130 ohms
Power Output: 100 watts Class A into 8 or 4 ohms; 200 watts (50 Class A) into 2 ohms; 300 watts (25 Class A) into 1 ohm; 20 Hz- 20 kHz @ 0.3 percent THD (8 ohms); 1 percent (1 ohm)

ASSOCIATED EQUIPMENT

Clearaudio Pentagon CD-70 CD player; VPI HW-19 Mk 4 turntable, VPI JMW Memorial pick-up arm, Clearaudio Gold-Coil Signature cartridge; Audible Illusions Modulus 3a and Krell KRC-HC preamps, Classé CA-150 amp; Hales Transcendence 5 speakers; Nirvana SKG and SL-1 cables

Wilson MAXX Loudspeaker: Some Dreams are Worth the Price!

Let me be clear from the start. The Wilson Maxx is one of the best speakers I've ever auditioned, and if I had the money and were not a reviewer, I'd buy it. It does virtually everything extraordinarily well; it allows you to get the best out of your components; it works in real-world listening rooms without dominating them; and it provides great musical pleasure along with great musical insight. At the same time, at $38,000 a pair and counting, the Maxx *should* do everything well. A single significant fault in any speaker costing more than $10,000 is inexcusable.

Of course, you get great dynamics and deep bass. An expensive speaker weighing 400 pounds a side has no right to sit anywhere in the listening room unless it can be spectacular. The Maxx earns that right without strain. You can throw any sonic spectacular at it, and it will give you just as much energy and sonic impact as the source material permits – and it will not add euphonic touches of coloration. At the same time, you get exactly what's on the recording – which is not always an act of mercy in the sonic-spectacular world. Musically, "spectacular" often means loud, and far too often this turns out to be musically lousy.

Where the Maxx really shines, however, is in reproducing *musical nuance*, and its superiority here is hard to describe – particularly with words that are at best devalued coin in comparison to actually listening. What struck me most about the Maxx after listening to hundreds of diverse recordings was how deeply it allowed me to listen into the music, how often it compelled me to actually pay attention and listen for the pure pleasure of it, and that this occurred with so wide a range of music.

With proper set up, timbre is exceptionally neutral. Bass is exceptionally musically natural, tightly defined and controlled without losing life and energy. The midrange is sufficiently revealing so that no coloration emerged on male or female voice, and strings, woodwinds, and brass sounded realistic and coherent. The soundstage is as natural and three-dimensional as the recording permits. Low-level detail and dynamics were as excellent as the ability to reproduce loud passages, and the harmonic integrity of music was similar to that sound you hear from the best electrostatics and ribbons, as was overall transparency.

At the same time, the Maxx is not a demanding or fussy speaker in terms of recording quality. It doesn't make any given recording sound better than it is, but it is remarkably free of the colorations that reinforce the problems in bad and mediocre recordings and make them sound worse. This ability to consistently get the best sound out of an extremely wide range of recordings is also the reason why I have emphasized the phrase *musical nuance* in praising the Maxx.

Many of the nuances that distinguish the sound of High End equipment are of comparatively little aesthetic value in terms of perceived musical realism. Often you trade new sonic colorations for old, and one musically unnatural – or at least questionable – sound for another. The real question in comparing different equipment is almost never, "Can you hear the difference?" The answer is almost always, "Yes." Unless *nuance* can meet the test of being musically accurate, it is a waste of money. More than that, nuances that don't meet this test almost always lead you to start unconsciously favoring recordings that are enhanced by a given coloration, and you start choosing your other components to match. The thing about the Wilson Audio Maxx that really matters to me, then, is that the hours, weeks, and months I spent with this speaker consistently made the listening experience seem more musically *real*. The Maxx gets countless little trade-offs in sound quality musically right, and preserves an overall sound balance that is remarkably neutral.

This kind of performance, however, is something you ultimately have to hear for yourself. The most a reviewer can do is give you the motivation to close this magazine and go out and listen for yourself. Now, let's talk about how serious that motivation should be. The answer is easy if you have the money. The Maxx is not only intensely musical, it is beautifully made, and finished like an Aston Martin. For a

speaker of its mass and sound quality, it is also not visually obtrusive. Its beauty is of the form-follows-function variety. The chief merits of its visual impact lie in "techno-awe." No one is going to call it pretty, but any one who sees it will know you are a serious audiophile.

"Techno-awe," however, goes far beyond the Maxx's visual profile. The enclosure is a molded polymer that has immense mass and ability to resist vibration, and a great deal of complex internal bracing. Packing 400 pounds of enclosure, speakers, and crossover into a package 63 x 17 x 22 inches allows Wilson Audio to create an extraordinarily well-damped speaker and rigid surfaces for mounting the drivers. This almost certainly contributes to the fact the Maxx is one of the most transparent speakers I have ever heard, and has extraordinary low-level resolution – rivaling the best ribbon speakers in this respect.

The drivers are custom-made to Wilson's specifications. The Maxx boasts five drivers per speaker: a 12" and 10" woofer, two 7" midranges, and a 1" inverted-dome Titanium tweeter, all superbly crafted. The crossover is also beautifully made, with top-notch components and wiring.

The Maxx is not perfectly time- and phase-aligned, but its D'Appolito driver configuration and crossover give it a coherence and precision that outperforms anything I've heard from speakers that tout first-order crossovers and superior time and phase alignment.[1] The depth and realism of the imaging and the stability of image size and placement at different levels of loudness are truly outstanding.

The Maxx is also unusually efficient, with a rated sensitivity of 92 dB at 1 watt per meter. Wilson says it can be driven with a minimum of 7 watts. Well, I wouldn't go for 7 watts, but then, I'm not a single-ended-triode fan (unless it's matched to a suitable horn speaker), but you can get away quite nicely with a 25-watt triode tube amplifier, but only if you are willing to give up the damping and power you need in the deep bass.

The Maxx has a nominal impedance of 8 ohms and a rated minimum of 3. You can hear the value of every increase in power and bass control in an amplifier. The Maxx deserves the very best amplification. It is a joy on organ recordings with true deep fundamentals, and bass viol and drum are equally excellent.

Wilson specs this speaker at 20-21,000 Hz frequency response at –3 dB. No in-room measurement can really assess such a specification, but the overall timbre and deep bass extension and control of the Maxx are superb, and the measurements I performed with the Tact 2.0 and a professional one-third octave RTA were as good as any I have obtained.

You can also fine-tune the Maxx to your listening position and taste, which is another reason I find it difficult to talk about the sonic colorations in this speaker. The vertical angle of the tweeter and midrange unit can be adjusted precisely to suit the height of your listening position. There are other adjustments, as well. Set-up is critical, but Wilson Audio has an excellent training program to help dealers choose the right placement so the speaker will produce a soundstage that is almost holographic in its precision.

A word about compatibility. You are unlikely to have amplifier load problems, though, as I said, the speaker deserves high-powered amps for the most dynamic music. But you will certainly hear the colorations in your other components more clearly. This speaker masks almost nothing, including the sound of cables and interconnects. I recommend a speaker cable that is capable of providing really tight and powerful low bass.

I have found that this is the area where the interactions between speaker cables, amplifier, and speaker are particularly audible and often go beyond the subtle. The better the speaker, the more audible these interactions are. I normally use Dunlavy and Kimber Select speaker cables, and some minor problems showed up with both. These are extremely good products, but the Dunlavys do not provide quite the control I'd like, at least in terms of mid-bass tightness. The Kimber Selects come closer to ideal performance, but don't have quite the ultimate in deep bass extension. This showed up more clearly with the Maxx than with other speakers I've auditioned, and after checking around, I tried the Transparent Reference XL Series.

The synergy between the Wilson Audio Maxx and Transparent Reference XL Series is impressive and occurred with my reference Pass X600, an older pair of Krell 200 watt mono amps, my small home-built triode tube amp, and the Plinius 250A. The Transparent Reference XL interconnects added an extra touch of transparency (although the Kimber Selects were possibly a bit more faithful in timbre).

Now, does the Maxx have some limitations? Of course. They produce the same kind of focused soundstage as any other speaker that is not a dipole or that lacks rear-firing drivers. As a result, the sound has a touch less air and is slightly less open, and the soundstage does not seem as large. Some other top speakers have a bit more apparent upper-octave air (although usually at the cost of less accurate timbre). The best ribbons offer a different and sometimes superior sounding detail and transparency, although not consistently better or more musically realistic. Some ultra-efficient horns have a touch more apparent dynamic life. A few speakers provide more of the deepest bass – although not necessarily with more accuracy.

Let me close where I began. The Wilson Maxx represents the best mix of sound qualities I've heard so far in a speaker small enough to be practical in my listening room. It is the most musically accurate speaker I've yet heard, on a wide range of recordings. Above all, at the end of a hard day, it provides a touch of magic in the night.

ANTHONY H. CORDESMAN

1 The jury is scarcely in on this aspect of speaker design because the speakers I'm referring to cost less than half the price of the Maxx. But it was clear to me that the advantages of more complex crossovers in minimizing the load on a given driver and allowing an easier match can compensate for some problems in time and phase alignment.

MANUFACTURER INFORMATION

Wilson Audio

2233 Mountain Vista Lane, Provo, Utah 84606

Phone: (801) 377-2233

www.wilsonaudio.com

Source: Manufacturer loan

Price: $38,900/pair

JOHN NORK COMMENTS:

To purloin the punch line from an otherwise forgettable car commercial, this is *not* your father's Wilson loudspeaker system.

Like many grizzled audio scribes, I have closely monitored the evolution of Wilson Audio speakers over the years. My first substantive contact with a Wilson design occurred way back in 1987 when I reviewed the original Wilson Audio Tiny Tot (Watt) in these pages. The Tiny Tot has proven hardier than most of its larger brethren, and survives to this day in its sixth iteration.

Wilson has also focused on larger full-range systems, starting with the venerable (and venerated) Wilson Audio Modular Monitor (Wamm). It too exists today, in its seventh incarnation, with a price tag of $225,000.

Irrespective of these differences in scope and design, there has been a discernible "family sound" to the past Wilson products I have auditioned. To be fair, this is true (to a greater or lesser extent) of all long-standing High End loudspeaker companies. Such organizations are often guided by a single visionary architect who has specific (sometimes idiosyncratic) ideas of how the Perfect Speaker should operate. Like reviewers, designers have their own "listening biases" that guide them in their work and cause them to focus on certain aspects of reproduced sound. One can often extrapolate from a designer's past products to future offerings. Not this time.

It is not semantic hyperbole to say that I was stunned when I first heard the Wilson Maxx. Although reviewers routinely transcend human limitations and approach products with absolutely no pre-existing bias, I fell short of that ideal on this occasion. Given the sonic disparity between the Maxx and past Wilson models, one might expect a radical shift in design criteria. Based on the product documentation and extensive discussions with designer David Wilson, that does not seem to be the case. The Maxx flaunts its 400-pound cabinet, fashioned from ultra-dense, damped, rigid, low-vibration materials. A robust knuckle-wrap test on the cabinet leads only to pain, not aural artifacts. The expected Wilson obsession with banishing spurious resonance is very much in evidence in the Maxx. Like AHC, I have no doubt that the extremely low "noise floor" of the Maxx contributes mightily to its noteworthy neutrality and redoubtable resolution. The system is virtually free of the "drivers-in-a-box" sound that drove so many of us to dipole screen speakers in the past.

In my experience, Wilson Audio speakers have tended toward the analytical/"neutral" pole of the sonic continuum (as opposed to the romantic/"musical"). Some would describe them as ruthlessly revealing. Others would say they exaggerate (or at least highlight) flaws in ancillary components and source material. Given David Wilson's professional recording background (where everything on the mastertape must be heard), this is understandable, perhaps even laudable. I found the Watts to be invaluable tools in my own recording work. When it came to the deceptively simple act of listening to music for pleasure, though, they could be a bit relentless.

"Relentless" is a word that I would never apply to the Maxx. Given proper set-up and associated equipment, the Maxx is unfailingly smooth and natural, no matter how hard it is pushed.[1] Unlike the older Watts, it is marvelously easy and enjoyable to listen to for extended periods of time. Like AHC, I never grew tired of listening to music on the Maxx. It was always an enjoyable, enriching experience. Such long-term musical satisfaction is perhaps the most daunting task for an audio component. The Maxx succeeds with aplomb and distinction. It serves the music well.

The spectral balance of the Maxx is nearly ideal. The harmonic balance of music is very well conveyed. The timbre of a wide array of musical instruments is convincingly lifelike (e.g., trumpets and French horns, acoustic guitars, violins and viola, piano and harpsichord).

In my listening room, though, there were some mild frequency aberrations. First, although bass *quality* was excellent, the *quantity* was a bit excessive. This was particularly true of the deep bass. Perhaps surprisingly, this is a common problem with today's super-speakers. It's almost as though the designer needed to aurally boast that his creation can forcefully re-create the subterranean depths of music. As a result, the listener receives ongoing reminders of this prodigious accomplishment.

To be sure, judicious augmentation of deep bass can be musically enjoyable, even exhilarating. It is ultimately distracting, though, in that it is not an innate part of the live musical experience. At live acoustic concerts, the listener's attention is rarely drawn to the bass the way it is in many audio systems.

The Maxx also exhibited minor elevation in the middle bass in my listening environment. However, bass definition was so good that this was not a significant problem.

At the other end of the frequency spectrum, the Maxx is slightly deficient in high-frequency air (as AHC reported). The top end is exceptionally smooth in-room, but a bit reticent and polite. When coupled with the mild low-end emphasis, the result is a subtle (but most un-Wilson-like) richness or ripeness. Compared to live music, the Maxx can sound ever-so-slightly dark on occasion. Please be aware that I am describing a rarefied tonal phenomenon here, not something overt or intrusive.

Still, just as I would never apply the word "relentless" to the Maxx, I certainly would not describe the past Wilson designs I have auditioned as "rich." The Maxx represents a significant departure in speaker "voicing" for the company, even though the objective design criteria appear unchanged.

The midrange of the Maxx is extremely good. It does lack that last bit of aliveness attainable with the finest ribbon and electrostatic systems, however. At their best, these designs can suggest the live experience in this area a bit more convincingly than the Maxx does. In isolated ways, they are more "transparent" in the broadest sense of the term (i.e., they allow certain musical characteristics to emerge with less imposition by the speaker). They also are beset by other problems that do not mar the Maxx.

The dynamic range of this speaker is awesome. Even now, after many hours of listening, I'm not sure which is more impressive, the Maxx's surprising skill at the quiet end

1 Three commercial recordings were used as reference in this review: The Winter Consort: *Road.* [A&M SP4279 LP]; Helicon Ensemble: *Vivaldi for Diverse Instruments.* [Reference Recordings RR-77CD]; Crosby, Pevar, and Raymond: *CPR.* [Samson Music GC0145 CD].

of the dynamic continuum or its effortless ease during music's loudest passages. The former is often impaired in large-scale speakers. In terms of the latter, the Maxx is one of the few speakers I have heard that undergoes no qualitative or character change when taxed by demanding musical *fortissimos* played at concert-hall volumes. Impressive, indeed.

Like AHC, I found the soundstage of the Maxx first-rate. Stage depth and width are bountiful. Image placement (even during densely congested musical passages) is precise and natural. Although certain dipole designs have more va-va-va-voom bloom, the Maxx's soundfield is more accurately and distinctly rendered. In addition to CDs and albums, I relied on my own recordings in arriving at this judgment.

Although the Maxx does not spotlight flaws the way some past Wilson products have, it does demand associated components of requisite quality. Every change I made in my reference system was clearly audible through the Maxx. It is a high-resolution device that will sound no better than the links preceding it in the audio chain. Although the Maxx presents a challenging low-impedance load at certain frequencies, I attained glorious results with the superb Audio Research VT200 tube amplifier. Like AHC, I also experimented with a variety of cables. I too found that the Maxx worked exceptionally well with the Transparent Reference XL cables.

The Maxx is a beautifully crafted product. Every aspect of its finish and construction is superb (right down to the machining of the woofer port and the alignment block). Many non-audiophiles visiting my home remarked on the gorgeous finish and obvious quality of the system. Perhaps this should be commonplace with components of such cost, but that is not always the case. I have had other similarly priced speakers over the years whose build quality pales next to the Maxx. All too often, extravagantly priced High End audio components are exercises in engineering genius, mated with poor production skills. The result is a wonderful laboratory concept that falters crossing the threshold into product reality. With the Maxx you get superior design *and* execution, in a fully realized product that sets an enviable standard of excellence.

This is not to say that the aesthetics of the Maxx will be universally appealing. The speaker is of the futuristic roboto-pod look that has always characterized the company's wares. Although some will be captivated, those with pre-Jetson (as in George) décor may vigorously balk.

The Wilson Maxx is not an "exciting" speaker. Other than the slight bottom-end heft noted above, it does not draw attention to itself in any way. Rather it "simply" passes along the majestic beauty of music. In this sense it is an eminently natural loudspeaker system. Even jaded long-term audio critics like AHC and JN found sanctuary in its musically consonant sound. Tellingly, we both derived many hours of genuine musical fulfillment from the Maxx. It is a superior speaker system in every sense.

Long-time readers are familiar with John Nork, who in the old days was one of our most valued reviewers. New readers will be interested to know that John is a musician who has performed in many types of ensembles and today still plays with a band. He is a trained recording engineer, with a 16-track recording studio of his own. Since 1986 he has been president of Infinity Software Systems, a software and consulting firm that specializes in computerizing retailers.

Plinius M14 Phono Stage and M16 Line Stage

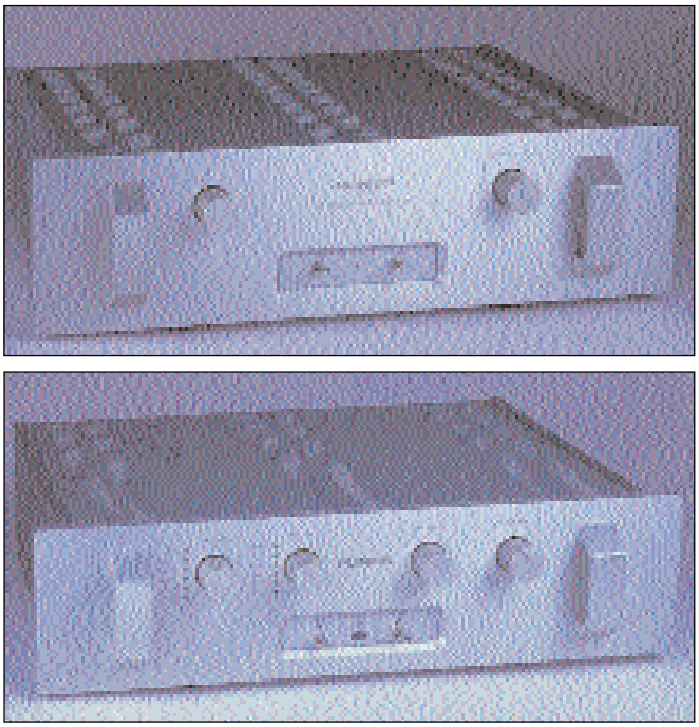
Both the Plinius M14 and M16 are substantial components. Their handsome, straightforward styling looks rather like an Audio Research design executed by Krell, with chunky handles, large rotary switches, and a small inset at the bottom center of the thick front panel, where switches for absolute phase and standby mode flank a blue status LED. There is one odd quirk to the construction: the thick, machined aluminum tops slide into grooves in the side panels and are secured at the back with three Allen bolts, but the tops do rattle when rapped with the knuckles. Knocking anywhere else on a Plinius is like knocking on a large tree.

The M14 phono stage accommodates only single-ended inputs, but provides both balanced and single-ended outputs. High- and low-gain settings are selectable on the front panel, as are a range of loading selections from 22 ohms to 47 k/ohms. This unit is designed to provide sufficient gain for any cartridge of more than .20 mV output. The matching M16 line stage's front panel is clean and well organized, with balance and volume controls and free-spinning selectors for input and record. The volume pot is a high-quality Alps unit, motor-driven via the remote control.[1] Six sources can be connected to the the line stage, though only one input, labeled CD, is balanced; this seems odd given that the phono stage provides balanced outputs. Another set of balanced ins would be appreciated. Both balanced and single-ended outputs are provided. Both components also offer detachable power cords.

The units are meant to be left on at all times, and their power switches are located on the rear panels to discourage turning them off. There is a good reason for this that both HP and ASP have mentioned: Plinius electronics will sound hard, hazy, and grainy when they are first powered up. A day later they will be better, but not until a week to ten days have passed will they begin to sound their best, and there is incremental improvement for at least a month. Incidentally, they must be left on, in mute (not standby!), all the time, or you have to go through the whole process again.

The M14 Phono Stage

Once properly warmed up, the M14 immediately makes its presence known with its ability to produce bellowing, wall-flexing low bass from any record that demands it. Brutal bass demo-discs like Frederick Fennell's *Pomp and Pipes* [Reference RR-55] and Mickey Hart's *Däfos* [Reference RR-12] are great fun with the M14 – it never seems to be working hard on even the most demanding of deep bass. I was even moved to dig out seldom-played organ records for the sheer pleasure of hearing its amazing grip on and control of the lowest octave. The M14's bass is not only about sheer brute force. In most music, the bass-to-upper-bass range, and not the bottom octave, provides the foundation. The M14 has authority and articulation on bass guitars/fiddles, drumkits, and piano. On "Come Together" and "Something" from The Beatles' *Abbey Road* [Mobile Fidelity 1-023], Ringo's tom-toms and Paul's bass guitar were superbly delineated and richly full-bodied. The M14's ability to keep up with flurries of transients in the lower reaches makes the interplay between Jaco Pastorius and Don Alias a propulsive entity on Joni Mitchell's "In France They Kiss on Main Street" *[Shadows and Light*, Geffen BB-704].



M14 (top); M16 (bottom)

1 The M16's remote deserves special mention: it is large and heavy, but provides handy buttons for all functions but balance. Special kudos to Plinius for putting the absolute phase switch on the remote, where it belongs.

The Plinius does not stop with world-class bass performance; midrange is treated equally well – with fluidity and timbral generosity. Even today, the transistor most often makes its presence felt on massed strings, where a steely or harsh quality can still sometimes be heard overlaying the true sound of the instruments. On Malcolm Arnold's *English, Scottish and Cornish Dances* [Lyrita SRCS.109], the M14 spun out strings with splendid presence and harmonic wholeness. The M14's one notable shortcoming does emerge in the treble range: While massive treble transients are generally well-handled, there is occasionally a slight papery-sounding coarsening of texture on high-frequency transients of great intensity, such as monster cymbal crashes and up-front tambourine rattles. For the greater part, honesty is also a primary Plinius trait – it does nothing to sweeten mediocre records, but lets pass nearly everything to be had from the best LPs.

The M14's dynamic performance places it squarely in the top echelon among the phono sections I have heard. While it is exceptionally distinguished in the bass ranges, there is a lively, responsive quality throughout its full bandwidth. The M14 does a particularly creditable job when the going gets very loud. It exhibits none of the slight compression on dynamics from *ff* upwards that I found on the Rowland Cadence. The Plinius just keeps getting louder and louder with no strain. Even a full-tilt assault like the great Eugen Jochum performance of *Carmina Burana* [DG SLPM 139 362] or Reiner's monumental *Pines of Rome* [Classic/RCA LSC-2436] doesn't make the M14 lose its control or focus.

The M14 also excels at capturing the core of the music that passes through it. Listening to Roxy Music's *Manifesto* [Polydor POLH 001 (UK)], I was struck anew by the strange, moody darkness of the album. This is an album of decadence and regret with an almost between-the-World-Wars feel, and you hear it through the M14. The Plinius also recaptured the tension and drama of Carlos Kleiber's epic Beethoven *Fifth* [DG 2530 526], reinvigorating this peerless performance.

In a phrase, the M14 is a deal – and then some. It is flexible, anvil-solid, and yields only a tad of ultimate high-frequency finesse to the very best phono stages I know. It also costs less than its closest sonic competitors – the Rowland Cadence, Aesthetix Io, and Audio Research Reference Phono. Anyone looking for a phono stage to live with for the long run would be foolish not to give the M14 an extended audition.

The M16 Line Stage

Since it shares the same basic circuit with the M14 phono stage, the M16, no surprise, sounds quite similar to its sibling. It reprises the phono stage's superb bass performance, allowing the superiority of the best digitally recorded bass to make itself felt and heard on CDs like Moby's *Play* [V2 63881-27049-2]. Atop this exemplary bass, the M16 line stage presents a well-balanced and continuous midrange. The luscious, slinky sax of *The Pink Panther*'s title track [RCA LSP-2795] is vividly presented, and voices are natural and uncolored. In the top octaves, the Plinius shows essentially none of the traditional transistorized failings, and in this respect is slightly superior to the phono stage. The delicate mix of sweetness, satin, and rosiny bite that brings strings to life is there on Van Cliburn's performance of Rachmaninoff's *Second Concerto* [BMG 619-61-2]. Upper harmonics of string and brass instruments never jump out aggressively from the fundamentals; there is no discontinuity or raggedness, even during demanding crescendos.

The M16 is particularly good at capturing the way instruments and voices project into an acoustic space. Timbral characteristics aside, one reason a piano does not sound like a saxophone is because of the differing ways they project sound into space. The key word here is "project," because in reproducing solo instruments, the size and shape of the source from which the sound originates controls the way the sound is radiated. The Plinius electronics are uncannily good at maintaining the distinctive ways that different types of instruments, including the human voice, behave in space, projecting not just forward, but three-dimensionally into a definable space and in unique individual ways. Moreover, there is no sense of physical disconnection of the source from the sound. Part of the M16's way with this trait can be laid directly at the feet of its excellent dynamic performance. Like the phono stage, the line stage has plenty of dynamic vitality and forcefulness.

The M16 also casts a very good soundstage. It does not take recordings of modest spatial proportions and turn them into wraparound spectaculars; neither does it diminish recordings that require a Cinerama-style presentation. Top tubed units and the Jeff Rowland Coherence II provide slightly more depth and a bit of extra definition to the back corners of the stage, but the M16 is a solid performer. In all cases, the M16 gives you the perspective the engineer and producer put on the recording, with no artificial constriction or sweetening. Dynamics and soundstaging converge when it is necessary to maintain instrumental separateness during moderately loud to very loud passages. The M16 keeps things in their proper places, with no defocusing of image boundaries even in demanding passages, such as the most taxing portions of Philip Glass' complete and remastered *Koyaanisqatsi* [Nonesuch 195062].

Compared to the far more costly Coherence II, the M16 shaves just a bit of immediacy and snap from the leading edge of the most dynamically demanding transients, as when all four Romeros are playing at once on "Sevillanas" *[The Royal Family of the Spanish Guitar*, Mercury 434 385-2]. The M16's transparency, low-level detail retrieval and palpability are all good, though it is not quite the equal of the Coherence – hardly an unforgivable failing, since the Coherence costs three-and-a-half times as much.

A more appropriate comparison is with the Audio Research LS25, which I have owned for two years. The M16 line stage establishes itself as a worthy contender or alternative to the ARC. The tubed unit ekes ahead of the Plinius, with slightly superior image palpability and a non-euphonic liquidity and airiness in the far field. The ARC is also the more versatile unit, providing complete sets of bal-

anced and unbalanced inputs, selectable overall gain, and processor loop for home-theater applications; it is also $800 more. The M16 establishes its superiority in the areas of superb bass, a broadband macrodynamic presentation, and an unusual knack at projecting the focused sound of instruments and voices into space. Both are superb overall performers and the choice between them will come down to personal taste or your need for the ARC's exceptional flexibility.

One measure of a component's ultimate capabilities is whether it responds to non-invasive tweaking. Neither the line stage nor the phono stage changes character when used with judicious vibration isolation and the best power cords, but the improvements that can be realized by such tinkering are made clear – the units become more clearly themselves. They also allowed the sonic characteristics of different footers and isolation components to be heard, and showed just how much difference a good power cord such as the CPCC Top Gun can make on an otherwise well-engineered piece of gear.

Ultimately there is a commendable sense of ease and composure about the sound of the M16. The broad strokes of music's paintings are sketched boldly and confidently, while fine dynamic and timbral details are a naturally integrated part of the whole. The M16 has no significant liabilities and many praiseworthy strengths.

Summing Up

There is nothing in the sound of either the M14 phono stage or M16 line stage to indicate what type of electronics are at work inside their sturdy boxes. While there is a slight dash of dryness to the Plinius sound, it shows up as little more than a slight reduction of the last bit of airiness and shimmer in the upper midrange and lower treble, exemplified by the recorded reverberation on the best orchestral recordings and well-recorded cymbals on jazz or rock recordings. This slight failing emerges only when the Plinius components are compared either to the sound of live music or the finest audio components.

The Plinius electronics suggest that the $4-5 thousand price point is where the law of diminishing returns sets in with a vengeance. At this level, the serious listener can obtain components that are significantly surpassed only by the very finest available, and getting that last bit of sonic excellence will in most cases cost far more. The outstanding value and excellent sound offered by the M14 and M16 illustrates the sort of real progress that should be the High End's hallmark.

PAUL BOLIN

IMPORTER INFORMATION
Advanced Audio Technologies
1280 W. Peachtree Street, Suite 230
Atlanta, Georgia 30309
Phone: (404) 872-2564; fax: (404) 872-0817
www.plinius.com
Source: Importer loan
Prices: M14 – $3,495; M16 – $4,195

ASSOCIATED EQUIPMENT
Analog sources: Sota Cosmos turntable; Graham 2.0 pick-up arm; van den Hul Grasshopper IV-GLA, van den Hul-Shinon Red Boron and Transfiguration Spirit cartridges; Digital sources: MBL 1511 and Metronome T-20 transports; MBL 1521 and Metronome C-20 DACs, Kimber Illuminati Orchid interconnect; Electronics: Jeff Rowland Cadence phono stage; Jeff Rowland Coherence II and Audio Research LS25 line stages; Audio Research VT100 Mk II, Jeff Rowland 8T, Atma-Sphere MA-1 Mk II.2 and VTL TT-25 Tiny Triode amplifiers; Speakers: Apogee Duetta Signature, Coincident Speaker Technologies Super Eclipse and Silverline Sonata; Cables: Nordost Quattro Fil and Siltech SQ-80B-G3 interconnects; Nordost SPM shotgun, Siltech LS-288 Gold, LS-120 G3 and LS-80 G3 speaker cables; Luxor Group/CPCC Top Gun and Model Eleven power cords; Accessories: Ultra Resolution Technologies Bedrock equipment and amp stands; RadPad isolation platforms; Nordost Pulsar Points; Shun Mook IsoQubes, Tube Resonators and Mpingo Discs; Polycrystal footers; Solid-Tech Feet of Silence; Caig Labs ProGold; Nordost Eco 3 antistatic spray

DAN DAVIS COMMENTS ON THE M14 PHONO STAGE

My heart belongs to analog, though you'd never know it from the way once-lengthy LP sessions have become relatively rare. My excuse is that I've got to review new CD releases. But in the dark hours of the night, when soul-searching dredges up ultimate truths, I'll admit that the ease and convenience of CD are factors. Pop it into the transport and play. No elaborate cleaning rituals. No agonizing over which record clamp sounds best with which record. No fussing with VTA.

So, asked to comment on Paul Bolin's review of the Plinius M14 phono stage, I leapt at the opportunity to beam myself back to analog heaven. My enthusiasm was further whetted since I've had several Plinius products in my system over the years and, despite my predilections for tubes, found them satisfyingly musical.

That observation holds true for the M14. It's dead silent, even in my RF-drenched neighborhood, built like a tank, lightning-fast, and has frequency extension I've only dreamed of, with powerful, nuanced bass and sparkling treble. I can live happily with euphonically colored equipment. With the M14, I don't have to. With the M14 in combination with the extraordinary Wyetech Opal line stage, LP after LP proved that on the best electronics, musicality and neutrality go hand in hand. Well-recorded LPs sounded wonderful, poorly recorded LPs sounded poorly recorded – the M14 doesn't perfume garbage.

And despite my impatience with the lengthy rituals of prepping and playing LPs, I appreciated the M14's front-panel tweaking capabilities, including a phase-invert switch that maximized the sound of many LPs. Cartridge loading, often enabled through DIY soldering and similar atrocities, is accomplished via a knob that offers six options, sufficient for most cartridges. I tried various settings for my Koetsu Rosewood Mk II, finally settling on a wide-open 47K, which gave me the dynamic oomph and wall-of-sound stage I craved.

Every Plinius product I'd encountered had killer bass, so after an extensive break-in period, I hunkered down with the kind of music audiophiles use to break leases. Solti's Verdi *Requiem* is a long-time favorite for evaluating equipment. I used two versions, London OSA 1275 and the Cisco Super Analogue audiophile reissue, KIJC 9228/9. A big test is the great bass drum in the "Dies Irae," tepid on too many recordings. Through the M14, those bass ham-

mer blows were hair-raising, far more powerful than I'd ever heard them in my system. Another test is the reproduction of the chorus. The M14 superbly differentiated the chorus' sections, and conveyed crisp attacks and clearly articulated text.

Marilyn Horne's rendition of the "Liber scriptus" is another test. Her fabulous mezzo voice has a distinct register break. On good electronics, you should hear that gap, but it should still sound as if one voice, albeit far from seamless, is producing the sound. On too many systems, when Horne sings the word "judicetur," it sounds as if a soprano stopped singing and a baritone took over. None of that with the M14. A bonus was that the M14-Wyetech combination clarified the differences between the two pressings, revealing that the Cisco's greater transparency was bought with a degree of leanness not evident on the London original.

I played many soprano and violin recordings, listening for treble grain. It wasn't evident on my system, not even on such dynamic fare as Reiner's *Spain* [Classic Records RCA LSC-2230], where castanets and bells sparkled and massed strings in their upper registers had the right amount of bite without the glare or harshness I'm especially sensitive to. A similar grainless treble added to the pleasures of Sonny Rollins' *Our Man in Jazz* [Classic Records RCA LSP-2612], where Don Cherry's cornet, Rollins' sax and Billy Higgins' drum set came across with crystalline clarity and punch. And on Aretha Franklin's fabulous *Amazing Grace* [Atlantic SD2-906], recorded live at a Los Angeles church in 1972, the M14's clean, extended treble captured the sense of space, and its generous midrange caught every moan, whoop, and holler of Aretha's gospel singing.

Since it's against my nature not to find some nit to pick, I'll echo Bolin's comment about the M14's top panel: I added weights to dampen it, but a unit as well-built as this one really should have a ring-free, internally damped top panel bolted to the frame. But that's all I could find to grumble about. It's a cliché of audio reviewers to say the equipment they're reviewing is so good it made them rediscover their records. But that's what happened. I'm back to playing LPs, thanks to this wonderful unit. If you're in the market for a phono preamp, the M14 should be at the top of your audition list.

ASSOCIATED EQUIPMENT

Wyetech Opal line stage; Jadis JA80 amplifier; von Schweikert VR4 GenII speakers; Siltech and Harmonic Technology interconnects, cables, and AC cords; Harmonix footers; Harmonix and Shun Mook record clamps, resonance control devices

Art Audio Jota Amplifier

Many audiophiles have an over-simplified – and negative – view of single-ended triode amps. But it's time for them to start listening. Whether it's playing back big bands or string quartets, the Art Audio Jota bumps up against stereotypes: There's no over-ripe midrange, mushy bass, roll-off at the frequency extremes. In fact, with the exception of the overall smoothness and the inherent organic quality of the sound, I would never have guessed this amplifier was an SET.

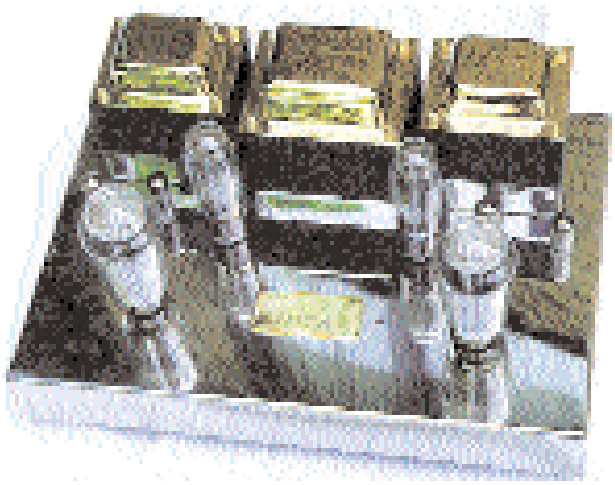
The Jota is a pure class A, 20-watts-per-channel, transformer-coupled, single ended tube amplifier designed around the KR Enterprises VV 32B output triode tube. The output tubes are mounted on a special isolation plate assembled with vibration dampers to isolate them from chassis vibration. The sockets themselves are ceramic with silver-plated pins. The dual mono design also features an automatic biasing circuit.

The amp is named for a type of folk dance from Aragon, Spain, that consists of hoppy steps in 3/4 time. The image of a folk dance is apropos, here, for the Jota will get your feet tapping in no time. Musical? Yes. But not in the double-speak definition of this word you may have heard before – "musicality" as an excuse for shortcomings in detail retrieval, dynamics, and performance at the frequency extremes. Indeed, the Jota excels in these and other areas. I was hard-pressed to find any manifest deficiencies. And its temperament does not require the talents of a live-in mechanic.[1]

Its physical appearance is striking: gleaming, polished, non-magnetic stainless steel and black transformers with gold-plated caps to match the Art Audio badge. The blue-crystal power status lights are recessed on front of the unit and have an almost neon-light effect that complements the rest of design.

In performance, it's dynamic, to say the least. Whether fleshing out the mids, scaling the highs, or plumbing the depths, the Jota's ability to convey dynamic gradients surprised me. I had expected the midrange to be somewhat lush, but it was not. And the rest of the frequency spectrum offered more than I imagined possible.[2] Indeed, my push-pull reference needs to be seriously goosed to get a comparable sense of presence. Sadly, when played in back-to-back comparisons, and loudly enough to bring the life back into the presentation, that reference amp still sounds relatively hard and mechanical.

Low-level resolution was unsurpassed, in my experience. The amp can crank out serious volume and still come across as sounding effortless. So unused to the unusually smooth sound was I that during my first week with the unit, I often found myself cranking up the volume in an attempt to get that edgier push-pull sound to which I was accustomed. The Jota refused to deliver, until forced to clip. Even then, the clipping was gentle and the amp always recovered quickly.



On the *Shadowlands* soundtrack [Angel CDQ 55093], the Choir of Magdalen College made delicate, yet fully energized entrances. Articulation was precise, yet full and well rounded, and triangle strikes that were difficult to distinguish on other amps rang out clearly.

In the intro to "Brother," from Bill Frisell's *Nashville* [Nonesuch 79415-2], Frisell slides his finger up the string of his guitar, and I heard it move two frets farther, and sustain longer, than ever before. The entire album (which can get somewhat raucous while remaining musical) was much more liquid than I recall from many previous listenings. It also offered a better view into the details generated by the harmonics of many stringed instruments, layered across the soundscape. Subtle murmurs, bites, growls, twangs, and snaps all came into aural focus.

The soundstage offers excellent depth and vertical aspects. Width was most appropriate, but the

1 That said, I must disclose that had a bit of trouble with the unit. It arrived with a non-functioning output tube, which the ebullient importer/contributing-designer, Joe Fratus, replaced overnight. About three weeks into the audition, a rectifier diode failed; this required the talents of an expert to repair. According to Mr. Fratus, Jota got a batch of bad diodes from its supplier. Upon hearing of my problem, he had all affected units recalled for quick replacement of the faulty part. I used the amp for another four months with no further problems.

2 Understand that this type of performance does not come on the cheap. Aside from the cost of the unit itself, replacing the pair of VV KR32 output tubes will set you back $400. If you are choked as you read that, I can empathize. When I learned of this, I did the same. At the time, I had not had a chance to listen to the Jota and professed that nothing would ever compel me to drop that kind of money for a set of two tubes. Color me wrong. (I subsequently learned that cost of tubes for the Jota is not egregious when one considers that certain Western Electric tubes for 300B-type amps go for twice that amount.)

Besides, these tubes should live a good, long life. Mr. Fratus says he has "original sets that have been running for three years now and the linearity still measures good." Interestingly, he believes the "older sets sound better than those just six months old." Of course, there's more to the amp than the tubes, and Fratus was emphatic when he said, "Believe it or not, the power supply and transformers account for 50% of the Jota's sound." Beyond saying that they are custom wound and of a proprietary split core (and not the typical single-ended) type, he remained mum.

coherence between it and the depth this amp reveals was most interesting. Overall, soundspace created was quite different from anything I was familiar with. The sense of immediacy, with loads of hall and studio ambience, seemed, at first, incongruent. It's hard to describe – it's certainly not the usual "I heard things I have never heard before." Here, I am talking about a different realm, where immediacy, depth of field, and energy within the room conspire to create an entirely different experience of the event unfolding. Then, it clicked. The stage is full, with appropriately sized and spaced performers. This sounded *right*.

The frequency extremes were the biggest surprises. Pristine, yet delicate and extended highs. The high Japanese bells in "Sagrada Familia" from Robert Rich's *Gaudi* [HS11028-2] were easier than ever before to identify. And on the other end, Mary Black's *No Frontiers* [Gift Horse D2-77308] took my Dunlavys to a new level of nuance and depth. The bass guitar's foundation at the bottom and the buzz at the top were palpable. The Jota also extracted more than a bit of warmth, fullness, and weight from the bottom end of these speakers. Since the Dunlavys are more analytical (overall) and leaner in the bottom (particularly) than, say, the Cabasse Catalanes, these are good things; they benefited from the solidity and depth of the bass offered by this amp by offering a few more Hertz and even better articulation than usual. Considering that they already excelled in the latter, I was impressed by the improvement.

On Weinberger's *Polka and Fugue* [RR-58CD] and other orchestral works, bass drums sounded whacked (as they should), timpani revealed the nuances of their limited range, cellos murmured and bloomed, and the lower register of the piano was clear and well weighted. Loud and complex passages unraveled admirably.

More than once was I startled by the attack of instruments and vocals on Dead Can Dance's *Into the Labyrinth* [4AD 9 45384-2]. Both male and female voices are pure – well-rounded, liquid and, at the same time, exceptionally detailed. Cymbals and gongs lingered longer before they disappeared into black space. I often caught myself tapping along to the tunes, which tells me it reproduces transient information very well. "WBAI," on Oregon's *Ecotopia* [ECM 833120-1], practically snapped my neck with blindingly fast, fluent drums.

On "Loisaida," from Joe Jackson's *Body and Soul* [A&M SP5000], horns were delivered with presence, that is, more than just bite, and with a depth of body that went beyond the visible. The bass came in sooner than I was used to and the weight of the drums allowed me to hear them deeper into the mix, with the walls of the hall supporting them. The piano was crystalline, but not sterile – its percussive nature was exceptionally conveyed; as the keys moved, hammers and hammers struck strings. "Heart of Ice" fades in with a bass drum, which, although far in the back of the stage, simply won't relent. With the Jota, it stayed recessed, but never released its grip on the fore of the mix. The dynamics portrayed by the Jota on this song were compelling, going from a subtle piano solo, building in horns (that could easily be mistaken for oboes, so delicate is the entry) to a building crescendo, complete with a mantra-like, simple lyric, to a wall of sound that is nothing less than arresting. The Jota delivered, again.

In short, the Jota took my system to a new level of musical realism (and enjoyment). I have sufficient symptoms of sleep deprivation to prove it. I wanted to review it because my curiosity about the single-ended sound was roused, but I didn't have the proper speakers for the some of the flea-powered gear that dominates that market. It has been said that the lower-powered triode amps, mated with appropriate speakers, are capable of even more nuance and emotional engagement. I'd like to try them for myself, though if it gets better than the Jota, you'll find me in a puddle of tears. If, at this moment, I had to pick one amp to spend the rest of my life with, the choice would be an easy one.

STEPHAN HARRELL

MANUFACTURER INFORMATION

Art Audio USA
34 Briarwood Road, Cranston, Rhode Island 02920
Phone: (401) 826-8286; fax: (401) 826-3903
catsarta@worldnet.att.net
Price: $7,995

SPECS

Output power: 20 watts per channel, class A
Input sensitivity: 400mV for full rated output
Input impedance: 180 k/ohms
Output impedance: 1.1 ohms
Frequency response: 20 Hz to 20 kHz - 0.5dB (full rated output)
Tube Compliment: two KR VV32B output tubes; two Mullard CV 378 (GZ 37) rectifier tubes; two 6922/ 6DJ8 gain stage; two 12 BH7 additional gain and cathode follower
NOS tubes are an available option for driver stages

ASSOCIATED EQUIPMENT

VPI HW-19 Jr./PT-6 pick-up arm/AT OC-9 cartridge; CAL Delta Transport driving CAL Alpha DAC (with 24bit/96k upgrade and GE 5751 tubes) via Illuminati D-60; Nakamichi RX-202 deck; Audible Illusions M3A preamp (MC phono board) w/ Edichron 7DJ8 tubes, C-J Premier 11a; Dunlavy SC-III speakers; Cabasse Catalane 500 speakers; REL Strata II sub; Tice Elite Power Conditioner; Argent Room Lens; Tara Labs RSC Reference Gen 2 interconnects; Tara Labs RSC Prime 500 cables; Belden 17504 power cords; Rosinante Dark Matter equipment stands; Bright Star air mass; Townsend Seismic sink; Sound Organisation amp stand; Mana Soundframe; VPI 16.5 record cleaner

MANUFACTURER'S RESPONSE

. . .This review is based on the standard version of the amplifier, but Art Audio has recently introduced a higher powered version based on the KR 52BX output tube. This version of the Jota is capable of 40 percent more current delivery and a higher damping factor to accommodate the customer who owns a speaker system that needs greater

control (larger woofers in dynamic speakers). We can also install, by special order, output transformers that accommodate impedance loads down to 2 ohms, with no loss in maximum output power. These special order, hand wound output transformers are [for] customers who already own speakers with difficult impedance curves or for someone who wants to pair the Jota with an efficient electrostatic or ribbon type speaker system. Finally, for further flexibility, either version is available in a monoblock configuration.

JOE FRATUS
ART AUDIO, USA

SCOT MARKWELL COMMENTS

I concur with Harrell's findings on this amplifier. The Jota truly is an excellent example of a properly executed SET. If anything, I believe that he has understated what the unit does well. I listened to it for a couple of weeks on the Horning Alkibiades Signature Golds, a friendly impedance match (6-8 ohm load) and an easy drive, at 99 dB/watt. I confess that I was almost irritated that the Jota sounded as good as it did, in that it put to shame almost every other SET amp I had on hand for my survey, with the exception of Wyetech Labs Topaz 572, a superb stereo unit from Canada, which costs almost $4,000 more than the Jota and offers 23, rather than 20 watts per channel. The Topaz has deeper, better articulated, and more powerful bass, and a more linear output throughout the full frequency range, but could not match the midrange creaminess of the Jota on massed orchestral strings – amazing to hear and unmatched in all my experience with SETs. For example, I played the Britten *Four Sea Interludes* [Previn; EMI SLS 5266], and *never* have I heard this selection's beautifully recorded massed violins better reproduced. The comparably priced Vaic 52 ST integrated amp has more dynamic impact when pushed, but could not reach as deep into the bass nor render such an extraordinary string tone. Both the Wyetech and the Vaic have more of a solid-state type of midrange signature (fine solid-state, to be sure), which indicated to me more of a true, honest "accuracy," in a technical sense, but the Jota was simply *ravishing*, despite sounding as if it were looking just a bit through rose-colored glasses. OK, this is not quite reality, but it is a quality I could live with and cherish, especially since this exquisite string reproduction seemed to hardly color any other part of the spectrum – and I listen to an awful lot of orchestral strings. Play string quartets or a sonata, and the amp sounds clean, lustrous, and grain-free. But those massed groups – man, what a treat! Its bass reproduction is also almost top-flight for an SET. I thought, however, that when pushed, it showed some signs of distress in the reproduction of powerful low-bass transients more readily than in any other portion of the frequency spectrum. But kept within its (admittedly high) limits, it held together well. This is not the best amp for those whose tastes run to loud, driving rock or hip-hop bass compositions, but for most orchestral, pop, and jazz, it is well suited to the task at hand.

I also was pleased at the low level of distortion, especially at higher listening levels and on high-frequency percussion transients; as Harrell intimates, the Jota was capable of lightning attack and delicate, sweet decay, without blurring or ringing. And its ability to produce a credible soundstage, whether of a studio for pop music, a live rock venue, or differing orchestral halls, was first-rate. My reference solid-state Plinius SA-250 can create a more majestic, properly scaled spatial perspective, but it can't match the sheer beauty of the Jota's midband reproduction.

In sum, I was extremely impressed with this amplifier. On a properly matched speaker system, this is an SET that can play all types of music with aplomb. The key here is "properly matched" speakers. When I first heard the Jota, I was attempting to drive a set of Burmester B97 speakers in HP's Room 1, which would seem an ideal situation, given the Burmesters' 97 db/watt sensitivity. But the speakers' cruel impedance dip to 2 ohms in the low bass made the amplifier bottom out and sound weak and spineless.

But this is not what this kind of amplifier is designed to do. If you stick with a 6 to 8 ohm load (or even slightly higher), use a full-range, low-coloration speaker with first-class midrange and high-frequency capabilities, stay above 91-92 dB/watt sensitivity, and do not try to play at 110 dB levels, you will be hard-pressed to find a better amplifier.

There's nothing remarkable about it. All one has to do is hit the right keys at the right time and the instrument plays itself. *J. S. Bach*

Digital-Signal Processing Devices
Part I: Tact RCS 2.0 Digital Preamp and Room/Speaker Correction Device

What DSP is and what it does – and how the RCS works.

Sometimes great ideas arrive too soon.* In 1991, when SigTech introduced the first digital-signal processing (DSP) unit for the correction of in-room performance of speakers, professional recording people took to it readily. They needed to find out what their work actually sounded like to achieve high-fidelity reproduction. The SigTech offered the first chance to replace the analog EQ the pros had used for speaker correction with something that worked vastly better. For the first time, you could hear what was actually on recordings with demonstrable accuracy. The consumer public, however, was less ready to take up the idea. The SigTech seemed expensive, although it was cheaper than many far less-effective High End nostrums. But the real difficulty lay deeper. Audio consumers had the notion that if the equipment they bought was good enough, truthful reproduction would follow. Unfortunately, this is not true. Rooms – even the best – take their toll. Today, this basic truth has come through to more and more people, as has the idea that DSP can help the problem. The SigTech has been joined by other units with similar intentions, from Accuphase, Tact, and Perpetual (expected, though not yet on the market). The 2.0 is Tact's latest version of such a device.[1]

What DSP Does

All these room-speaker correction devices share a basic mode of operation. With external PC control (SigTech, Tact) or without (Accuphase), they "listen" through a microphone to the sound of test signals at the listening position, in order to "know" what the room-speaker combination does. Then they compute a correction program. Then, with this program installed, the device modifies the music signal in "real time," as the music plays, so that when it is converted to analog and amplified, it will produce a sonically improved result. For instance, if the bass of the room-speaker combination is deficient, the device will raise the bass level of the signal to compensate. This sounds like the "slider" EQ devices of the old days, which audio consumers have been told to look down on. But since the EQ is being done in the digital domain, it can be done without all the ills that analog EQ is heir to. And the whole process can be carried out with a resolution and precision inconceivable with analog EQ.

When you set out to evaluate such a device, you are entering a new world. The ones I have encountered do what they do *correctly*. DSP is quite sophisticated, nowadays, and everyone appreciates the importance of expanded word length to control round-off error, redithering to truncate to ordinary word length, etc. Taking this for granted – and it is all done right in the RCS 2.0 – you are really trying to evaluate the effectiveness of the correction algorithm itself, checking that it produces improvements in perceived performance and that is does not introduce audible artifacts. Digital filters can introduce things you might not want to hear, even when they are correctly implemented technically.

How the measured performance of a speaker in a room is connected to what you hear is both complicated and controversial. The designer of a DSP device has to pick a pyschoacoustic model of the room/speaker/listener process, and how the correction program will work out in practice depends on this model and on how and how much the user can adjust the process. What the program actually does is most important, since it will do perfectly what it is supposed to as far as the signal processing goes. All the programs work, and all of them make sonic improvements. The real issues are what they do and which model gives the best sound. In Part 1, I am going to explain what the Tact algorithm does, to the extent that I have been able to determine that. (Designers are naturally a little cagey about details – you have to experiment and infer to some extent.)

RCS Measurement and Correction Model

The best way to understand what the RCS unit does and why it works so well is to imagine first, for contrast, an idealized version of the old "slider" band-by-band analog EQ devices and figure out why they did *not* work right. By "idealized" I mean I am going to suppose that the device simply does what it is supposed to do operationally, with no distortion. The old idea was this: Run a broadband, steady-state test signal through each channel (separately) of your system. Measure the steady-state response at the listening position in frequency bands corresponding to

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1 The admirable Z-System's rdp-1 does digital EQ, too, but it is intended for different purposes and does not program itself to the room/speaker automatically, so it is not included in the list.

* *In my experience, they always do. Vide:* The Perfect Vision! – HP

the sliders' frequencies. (The highest resolution, to my knowledge, had 30 bands, each one-third octave wide.) Move the various "sliders" up or down as needed to get the measured steady-state response essentially flat. Do this for each channel. Now your system is "flat" and the channels match.

In reality, this process often produced worse results than what you started with. While, contrary to what most audiophiles think, improvements could be made by a judicious version of it, an unthinking, mechanical application of the idea was usually a disaster. First, the frequency resolution of the device in the bass was usually not sufficient to deal with the actual bass problems. If you needed to boost a band to deal with a dip, you often ended up pushing some other frequency within that band up to the point of making an audible peak, with accompanying boom. There isn't much wrong with using steady-state response as the measure in the bass. The problem is that you didn't have narrow enough bands.

The second problem is a little harder to understand because it involves a surprising property of how we hear. In the bass, we really have no way to tell the difference between the "first arrival" and later, reflected sound. You cannot really get a handle, even mathematically, on the energy at, say, 100 Hz, in some sound until that sound has been going on long enough to produce a cycle or two at that frequency. You need somewhere between 10 and 20 milliseconds. And we are unable to treat reflections that arrive during that rather long window separately from the direct, first-arriving sound. This is true for microphones and computers, too. That is why you cannot readily separate the effects of the room from the response of the speaker when you do measurements in your listening room: The room gets in the picture before you have time to latch onto the energy content of the bass in the direct sound.

In the higher frequencies, this changes: If you are interested in how much energy there is at, say, 5 kHz. For that, you need only 0.2 to 0.4 milliseconds – you have plenty of time before any reflections arrive, typically. You can measure the high-frequency response of a speaker in a room without "hearing" the room at all. You can get the "anechoic" reflection-free response by just chopping out everything after the first little bit of the direct arrival of, say, an impulse signal.

The surprising thing is that this is pretty much what your ear-brain system does, too. Otherwise the timbre of a person's voice would change as they walked closer to or further from a wall, since the reflection off the wall interferes with the direct sound to produce all kinds of peaks and dips in the literal "steady-state" frequency response. But your ear-brain combination edits out this "comb-filter" effect of the reflection, and just hears the voice in natural timbre. Except in the bass: As a man walks into a corner, you will hear the bass content of his voice rise.

Now you can see what is wrong with the old-style steady-state EQ: It did not "hear" right. The bass was heard correctly, but the microphone picking

up the steady-state noise signal was lumping the whole sound together in the higher frequencies, treating reflections and direct arrival as a unified whole. But the ear-brain was taking the direct arrival more seriously than the reflections, and ignoring (at least to some extent) the peaks and dips that arise from reflections. (Much experimental work has been done on the thresholds for this phenomenon.)

Another problem with the old style "slider" EQ, though not an intrinsic defect of the process, was that people believed "flat is truth." But in steady-state response, flat is way too bright. Most recordings were made with the idea that the steady-state will roll off, even though the direct arrival is supposed to be flat. This is related to the fact that the ear has a rising frequency response to diffuse soundfields compared to frontal direct-arrival sounds, so that the sound will be much brighter if there is a substantial "flat" reverberant soundfield present. (The reverberant field response of concert halls rolls off very fast in the top octaves, so this effect is not troublesome in live music. See "Records and Reality: How Music Sounds in Concert Halls," Issue 38.)

The Tact RCS 2.0 has been designed to take these effects into account. It sends an impulse (sound of very short duration) through each speaker, and uses that to compute its equalization corrections. But as the frequency rises, it uses a smaller and smaller "time window." That is, it looks at smaller and smaller time intervals measured from the arrival of the direct sound to the microphone. Thus in the higher frequencies, the "tail end" of the sound, the late reflections, and the reverberant field are effectively factored out of the picture.

Now, choosing a shrinking window of this sort involves a smoothing out of the response curve. Just as a long "window" is needed to "hear" low frequencies, so a long window is needed to tell one frequency from another nearby frequency (this is how violinists manage to play fast passages really well in tune: They have no time to correct their micro-errors of pitch the way they do on long notes. On the other hand, the audience does not have time to hear the errors, either.). And this smoothing out produces something that could be fairly well fixed by "slider" EQ, if you knew what curve you wanted to fix it to. Knowing the curve is the hard part, though. You need to measure with the "windows."

The RCS 2.0 allows the user to choose "target curves," the curve to which the unit will match its time-windowed interpretation of the sound you hear in actual listening. The manufacturer suggests, and I found it to be true, that the most natural sound occurs with a curve a little up in the bass and the top rolled off somewhat. (Similar observations have been made by many, especially in steady-state room response.) In practice, the final result has steady-state response quite close to the target curve except in the very top. Presumably this is because, in my damped room, with the directional speakers I have been using (Gradient 1.3s), the late reflections and reverberant field make a small contribution to the steady state.

The EQ process is done with "minimum-phase" filters. The mathematical explanation of what that means is tricky – the literal definition, that the phase response is the Hilbert transform of the amplitude response, is not going to be illuminating unless you are a mathematician or engineer. The easiest idea of it is that a system is minimum phase only if it would be phase-linear if you made it flat with a "slider" EQ device that had an infinite number of bands – and such things don't exist in the real world.

What is important to understand is that room effects on speakers almost always introduce "minimum-phase" errors. This means that when you correct them to flat by minimum-phase EQ, you not only improve the frequency response, you also improve the phase response. (The old audiophile canard that EQ messes up the phase is wrong here.) Now, room effects are minimum phase, but only speakers with first-order crossovers or one driver are. And the RCS 2.0 has some additional "all-pass filters" that shift phase without shifting frequency response to deal with some phase errors outside the minimum-phase world. These are limited in operation. The RCS is not intended to phase-linearize speakers completely, as did the speaker-only Essex unit (see review, Issue 106).

How It Sounds: A Preliminary View

A detailed comparison of the RCS 2.0 with the most recent incarnation of the SigTech and the Accuphase unit will appear in Part 2. That will be a tricky business; the meaning of the target curves is different, since the systems use different measurement techniques. There is much to compare, when you think about the nearly infinite variety of target curves in all the units! Meanwhile, let me say a few words about the RCS 2.0 in absolute terms.

A critical audiophile friend described the Gradient 1.3s corrected by the RCS unit as "audio heaven." The Gradients are very nearly flat in-room to begin with and very directional, so that not too much work has to be done to control reflections. Even so, the correction made a conspicuous improvement. It is hard to exaggerate the extent to which DSP devices in general, and this one in particular, are capable of increasing the level of fidelity of a playback system. The Gradients are superbly accurate speakers by the usual standards of speaker accuracy, and offer neutral response and independence of degrading room effects all on their own (review, Issue 109). And yet the RCS pushed them to a yet higher degree of accuracy, which I have never been able to achieve by room-acoustic treatment or repositioning. To go further, much further, with such an exceptional speaker is a positive sign, indeed.

All the effects were positive: smoother and more accurate tonal character; improved imaging and soundstage behavior; an overall sense of hearing not speakers in a room but the original performance. All this added up to something startlingly good. On the extraordinary Byron Janis recording of the Rachmaninoff *Third Piano Concerto* on Mercury, one of the finest of all Mercurys, the sense of hearing actual music was extraordinarily strong. And the defects of the old microphones, minimal though they are on this recording, seemed even less obtrusive because everything else was so smooth and elegant in presentation. Digital artifacts from the RCS correction process itself were nonexistent, as far as I could tell. The correction was all improvement.

So, the Tact RCS 2.0 has scored a great success in bringing this type of technology into a more reasonable price range, and in such a way that everyone can hear why correction of speaker-room interface is the way forward for audio. Which company has the "best" program remains for next time. But the Tact unit is a worthy addition to the ranks of this all-important technology.

ROBERT E. GREENE

MANUFACTURER INFORMATION

Tact Audio, Inc.
201 Gates Ferry Road, Unit G
Little Ferry, New Jersey 07643
Phone: (201) 440-9300; fax: (201) 440-5580
nfo@tactaudio.com
Prices: "Core unit", digital in, digital out only, with digital volume control (includes remote control and calibrated microphone) – $2,950; A to D module for analog input – $599; D to A module for analog output (volume adjustable) – $699

SPECS

16-24 bit, 44/48/96 kHz sampling (upgradable to 192 kHz)
Computer Requirements: IBM PC compatible; Windows 95, 98, NT, or 2000; three-button mouse; 16 megabites minimum memory

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Four Over Two: Neil Gader and Paul Seydor Survey Four Integrated Amplifiers

Magnum IA170
Roksan Caspian
NAD Silver Series 300 (plus a Bonus)
Electrocompaniet ECI 3

Neil and I believe in level-matched comparisons, but that was not practical for this survey. Nor does A/B testing generally reveal those sonic characteristics that make for long-term satisfaction. We finally decided on a more concentrated variant of the standard TAS commentary system: We each listened to the amplifiers on our own, took notes, but did not reveal our findings to each other. Then we listened to the amplifiers together, again taking notes but not revealing them until the sessions for each amplifier were concluded. The joint sessions were carried out at my place and used Quad 989 speakers, Meridian 508 and Sony SCD-777ES players, and interconnects and cabling by Kimber, Musical Design, and Hovland. Neil's room is smaller and his associated equipment, including ATC's superb SCM20SL compact monitors, is perhaps more appropriately matched to this category of component. He was able to make detailed comparisons to a Plinius 8150, his reference and widely regarded as one of the best integrated amplifiers made.

Our method has shortcomings and limitations, but also its own validations. First, we were pleased to discover how closely our impressions tallied. Neil and I rarely find ourselves in sharp disagreement, but as my commentaries on his Shearwater and Rogue amplifier reviews attest, we don't always agree. Second, the way we evaluated these amplifiers is a more structured and controlled form of the way most of our readers must do it, either in an accommodating shop or at home with equipment they are familiar with. Finally, this experience has consolidated our faith in TAS' commentary system. To be sure, people can as easily be mistaken together as apart; but the emergence, with some regularity, of consistent patterns of impressions justifies a certain restrained confidence.

I shall not anticipate the specifics of our findings, but I want to offer two observations, with which Neil concurs. First, anyone who thinks that solid-state has not come of age – indeed, been of age for at least a decade and a half now – is a victim of prejudice or hearing loss. Second, it is no longer valid to make gross generalizations about the so-called "sound" of solid-state. It's been so long since I last heard a solid-state amplifier by a reputable manufacturer that could be accused of "transistoritis" that I can't remember the product or the occasion. The units here do not sound identical, and each occupies its own place along the yin/yang continuum; but none exhibits any of the transistor nastiness of the early years of solid state. – PS

Neil Gader Reviews the Magnum IA170 & Roksan Caspian

The British Magnum IA170 has garnered praise through the audio grapevine and it did not disappoint. The more I played music through the Magnum, the more I appreciated its bare-bones approach. With its chromed-steel faceplate, black-stamped steel case, and hefty knobs, it conjures up a more traditional era, its clean, unobtrusive physical lines nearly paralleling its sonic qualities. It features five line-level inputs, a tape loop, and (surprisingly) a phono stage suitable for moving-magnet cartridges. It has an IEC mains socket for power-cord substitutions. There are no preamp outputs. Dual pairs of binding posts allow bi-wire hook-up. A headphone jack is located on the front panel, where volume, input and balance knobs join a mute button and mono and tape monitor buttons. There is no remote control.

The Magnum is a "smoothie." It's a likeable non-abrasive amp that is slightly dark and midrange-oriented, with a smooth but gently rolled top and the classic signature of 60-watt tube amps of yore. Clearly, it's not going to rattle windows or peel paint, nor is it the last word in extension or transparency. But within its comfort zone, it's got all the features an audiophile needs. For an extra C-note,

Magnum will add a phono stage, and you're still under a grand. It handily drove moderately sensitive loudspeakers such as the Audio Physics Tempo III and the compact Sehring 502.

The IA170's midrange is tonally right on the ball. On the Mahler *Third Symphony* [Salonen; Los Angeles Philharmonic. Sony SK60250], I noted natural woodwind timbres, with clean but unsteely brass transients that lent that section a golden hue. Plucked stringed instruments, such as the psaltery, were reproduced with air and instrumental body, but lacked a bit of the string "speed" and definition. That was reserved for the NAD and, to a lesser degree, the ECI-3. Still in the realm of macrodynamics and transient capability, it got the broader brush strokes right, making it a notably pleasant listening experience.

On vocalists I found a recessed soundstage placement – a few rows back in comparison to what I have judged as neutral. On Frank Sinatra's *In the Wee Small Hours of the Morning*, his lower register seemed slightly thinned out and recessed compared to the more chesty richness provided by my reference Plinius 8150 or the smaller but potent SimAudio I5. The accompanying bass line was tonally full but not as precise in pitch as I have earlier noted. The string section, however, sounded smooth, with just the right amount of studio-style spotlighting. On transient-busy recordings, such as Holly Cole's "Jersey Girls" or "Train" *[Temptation*. Alert Records], where percussion information sings out from every corner of the soundstage, the Magnum is a tenacious retriever of detail and nuance. The slow fade of "Train" draws the listener deeper and deeper into the recording venue, as the track grows ever quieter; if you listen alertly, you can hear all kinds of information in and around Cole's microphone. If the Magnum does miss some of this very low-level information, it's not by much.

Perhaps the largest difference between the Magnum and the higher priced entries was how it defined space. First, what the Magnum conveys about where the musical image is (the player or singer, in most cases) and second, how it reproduces the remaining "empty" space, both near and far from that player. On Dvořák's "Carnival Overture" from *Nature's Realm* [Water Lily Acoustics], the Magnum gave a greater impression of center-stage information. It was a brighter, clearer focus that grew a bit dimmer as the stage widened. When the dynamics really began, a little congestion revealed itself as less distinct placement of images and some smearing. On Audra McDonald's "Lay Down Your Head" *[How Glory Goes]*, the Magnum narrowed the soundstage slightly; the left-of-the center violin and the right-of-center cello moved closer to the middle, and the overall sense of air and images in real space grew a bit more vague. Reference amplifiers like the Plinius and Sim seemed to radiate acoustic energy throughout the soundstage, at even the quietest levels. With the Magnum, that energy lacked three-dimensional continuousness. When McDonald sang

"Lay down your head and sleep, sleep," the sibilants had a slightly thicker, more forceful quality, an attribute unique in this survey.

The biggest restriction on the Magnum is that you need to pay more attention to speaker/room interface than with the more powerful NAD and Electrocompaniet. I can't stress enough that this is where critical mismatches often occur. The Magnum and the Roksan are designed for intimate environments or higher sensitivity loudspeakers. I was reminded of this repeatedly as I compared impressions in Paul's moderate-sized listening room with my own much smaller one. A power-output difference between otherwise comparable amplifiers is nearly nullified in a smaller listening environment.

If you think I've been hard on the Magnum, don't lose this overriding point: It competed successfully at the highest levels with units costing much more. It revealed subtle distinctions between associated components. It never failed to make great speakers sound great, and with less than the best, was forgiving. It need not apologize to anyone.

The Roksan Caspian is one unit in the remote-controlled Caspian system, whose components include a stereo amp, a CD player, tuner, a five-channel AV amp, digital surround processor, and DVD player. The look is industrial simplicity, with 1.6mm steel casework and a low-profile, beveled-aluminum faceplate. The case has a thin rubberized coating that reduces resonances and affords a sure grip. The Caspian has 70 watts per channel at 8 ohms and should have little difficulty with moderately sensitive speakers. In my small listening room, it (and the Magnum) could even drive the 83-dB *insensitive* ATCs to reasonable levels. (Not optimally, of course.) The back panel includes binding posts for a single pair of speakers, has five inputs, a tape loop, and a pair of pre-outs. The power cord is removable.

The front-panel provides input and volume knobs; mode- and tape-selector buttons are driven by micro-processors. The mouse-style remote fits comfortably in the palm and controls inputs, volume, tape, and mode (muting or standby).

Sonically, the Caspian resides on the darker, warmer side of neutral. Like the Magnum, it has a sweetness through the midrange that is heightened in part by a smooth, unetched treble that's slightly rolled at the top. Outside of the frequency extremes, it's as balanced as they come and imparts inner details on a more sophisticated level than the Magnum. Otherwise, these amps have a similar

tonal character. The most interesting example of the Caspian's tonal balance occurred on the A&M CD reissue of Cat Stevens' *Tea For the Tillerman*. This particular reissue is a cool, lifeless effort that lacks the harmonic richness and dimensionality of the legendary LP. But Paul and I noted that the Roksan removed some of the brittleness that initially set our teeth on edge and "defrosted" Stevens' voice to some extent. This attribute proved consistent when we switched to Audra McDonald, a mezzo-soprano who is just as likely to sing a Broadway standard as a classic aria. On the Roksan, her muscular performance of the title track, "How Glory Goes" [Nonesuch 79580-2], was strong on harmonic integrity and the weight and foundation of her voice were preserved. It was a warmer, more recessed sound than the Magnum. Transient details and lyrics with sibilance were slightly softened. I never felt I was missing anything; I just had to listen more closely. This amp proved a good match with compact, stand-mounted loudspeakers, and with compact speakers that have a slight treble bias, the Caspian will surely have the right character.

Still, it was more recessed than either the I5 or the 8150, a characteristic that's more noticeable on an electrostatic like the Quad 989 than on conventional dynamic drivers. It took a little air out of the Quads and dampened their otherwise lightning reflexes on transients.

The Roksan had a buttery texture. The subtle transient impact of rosin on a bow or the clatter of a flat-pick striking steel guitar strings was a bit rounded and softened. This made for smooth and soothing violins and string quartets, but subtracted some of the gritty textural energy at the moment the strings were bowed. It's easy to acclimate to this pleasant subtraction. On "Carnival," the strings retained a similar golden glow; the triangle's attack was attenuated a bit; and the piccolo's melodic line, soaring above the orchestra, was not as easy to follow. While the soundstage was impressively wide, the imaging was not up to the standards set by the NAD or the reference Plinius or the Sim I5. Dynamics, such as the explosive flugelhorn played by Clark Terry on "Misty" *[One on One;* Chesky Records] was a bit subdued and wouldn't stand your hair on end.

The Roksan reproduced inner detail on a rather sophisticated level. The degree of refinement here is a subtle one, and occurred in microdynamics. The very tiny acoustic "ripples," like the ripples from a rock thrown in water, are most difficult to get right in an audio system. Perhaps it's the more sophisticated power supply, but the Roksan rarely sounded congested or smeared information, even when pushed. Listen to McDonald singing "Lay Down Your Head." Indeed, I listened to this on all the surveyed amps. The first verse begins *a cappella* and is delicately joined by a harp and viola. A cello and bass viol enter the second verse, a violin and clarinet fast on their heels. Finally, the full orchestra follows into the bridge and last verse. The well-

recorded track is valuable as a study in microdynamics, natural timbres, and precision layering and imaging. Following solo instruments as they appear was never difficult, but the Roksan was superior in maintaining focus on each player as the arrangement grew more complex. The final lines of the last verse leave McDonald nearly alone center stage. A small, poignant crack in her voice and the last delicate ripple of her vibrato reinforced one of the Roksan's strong suits – its ability to reveal small dynamic gradations.

Like the Magnum, the Roksan has speaker and room restrictions. Well beyond the Magnum, its build quality is exemplary, its internals first rate. Some may call it too refined, but its supporters will surely brag about this attribute. The Roksan demands even greater care in the selection of a loudspeaker, given its more mellow tonal character. It's an integrated amp for the genteel classicist who insists on music reproduction that's neither overblown nor brittle.

Paul Seydor Comments on the Magnum and Roksan:

Neil has done such a good job of incorporating my impressions that I have little to add, so I'll concentrate on our few differences. If the NAD S-300 is yang with a vengeance, the Roksan Caspian is yin with a vengeance; I'm tempted to call it the Valium of this survey. But even at $1,500, it strikes me as uncompetitive. If you want the kind of sound it delivers, but much less veiled and dulled out, another $500 gets you the Electrocompaniet ECI 3, which has all the refinement Neil so eloquently ascribes to the Caspian, yet is more involving and dynamic.

It is unfair of us to consider the Magnum IA170 alongside amplifiers costing three times more, but it acquits itself handsomely. I've two observations to add. One, most of the IA170's failings occur at loud levels; ease back a bit, and several of them fall vertiginously away, which is what you'd expect from an amplifier in this price/power range called upon to drive Quad 989s. Two, I found it more difficult to characterize the Magnum as dark or light than any other unit in the survey. If you think that's a circuitous way of saying it's the most neutral, you're not far off the mark. *Very* impressive for a $750 integrated that tosses in a respectable phono stage for just $100 more.

Paul Seydor Reviews the NAD Silver Series 300 and Electrocompaniet ECI 3

Apparently tired of its mere good-value reputation, NAD recently introduced an upscale line of electronics designated the "Silver Series" (after the silver-gray fascias, in contrast to the company's familiar gray-brown), designed in Scandinavia, and aimed squarely at the audiophile market. I knew NAD meant business with the S-300 when I lifted it off the FedEx handcart: At over 60 pounds, this is the heaviest integrated amplifier I've ever tweaked a back hoisting. Sporting an extremely rugged chassis (with quarter-inch thick faceplate), six high-level inputs (one pair balanced), gold-plated jacks, 100 watts per channel, no global negative feedback, three power supplies, dual-mono configuration, isolated remote-control circuitry, you name it – the S-300 tries to touch all the audiophile bases. (An NAD-Link connector daisy-chains the amp with other Silver Series components, enabling one remote to control all.)

The S-300 taught me a lesson about break-in: I cooked this thing for about 80 hours before first listen, which nevertheless was a huge disappointment. Using speakers by Spendor (SP-1/2 and S3/5) and Sehring, I got shrillish highs, loose, woolly bass, and a thin, edgy midrange. In sum, yang with a vengeance. I put it aside.

Several weeks later, I broke the S-300 in for *another* 60 hours, as it had been dormant for a while. My, what a difference. Bold, powerful, impressive control, with a fuller midrange, smooth, extended highs, and bass that was still big but far better defined. Here are some of my notes. On the Salonen Mahler *Third:* "biggest, widest, deepest soundstage of the group. Excellent spatial separation in muted brass against strings just after opening." On

"Kiltory" from *Bitter Ballads*: "room galore, holistic imaging, beautiful colors from psaltery." On Holly Cole: "Robust bass, very 3-dimensional. Yields to reference set-up in ultimate detail, but not by a lot." Re Sinatra's *Wee Small Hours*: "Catches the slight nasality of the mike better than others; strings lovely." I'd still not describe the midrange as warm, but strings on the Sinatra and the solo violin passages in the Mahler came across quite sweetly, painted in essentially true colors; I couldn't fault it on vocals.

According to the watts-to-dB-watts formula, 100/100 doesn't translate into much more acoustic power than the 70/70 of the Electrocompaniet or the Roksan, but the numbers don't tell the whole story. Here size really does seem to matter (weight too, apparently): The Quad 989s took to the S-300's reserves like a BMW to high octane, with explosive dynamics and superb dynamic contrasts, handling with ease and authority the constant shifts from full orchestra to chamber-like scoring in the Mahler. In direct comparison to the reference set-up, the S-300 was still a touch fat at the very bottom and its extreme highs were a little tipped up – there was a touch more high-frequency emphasis on Christy Baron's *Steppin'*

Bonus – NAD 317

Recommended in my Basement System, Issue 124, the NAD 317 integrated is not formally part of this survey; but I have heard it in conjunction with the Magnum, Electrocompaniet, and NAD Silver. At $750, this three-year sleeper in NAD's line comes into direct competition with the Magnum, lacking a phono stage but featuring a remote. Sonically the two are just different enough to make a choice meaningful, the 317 missing some of the Magnum's refinement and airiness, yet compensating in ruggedness, dynamic range, and a low-down tastiness evocative of real music. With 80 watts per channel and a tilt toward the yin, the 317 is more powerful than the Roksan and Electrocompaniet and only 20 watts shy of its bigger brother. On an absolute, all-things-considered basis, this little bugger gives these higher-priced strutters a run for the money. When a symphony gets loud, only the S-300 of this group hangs in there longer; while for sheer musicality, none of them (including the Plinius) puts the 317 in the shade. With independent operation of amp and preamp sections, only the Roksan is its match for adaptability; so if an integrated is a stepping-stone toward separates, look no further. Only the captive AC cord and the tone controls are likely to draw a curl of the lip from audiophiles. Disregard. The tone controls have well chosen characteristics that work under real-world listening conditions to ease aggressive recordings and bring up the bottom end of bass-shy speakers. In sum: an outstanding unit for those on a tight budget.

– PS

[Chesky JD201] than I heard from anything else – but it is plainly the pick of the group for power-hungry speakers. It is also for me the pick of the group, period, though not without a couple of caveats.

First, in a departure from past practice, NAD has made it impossible to operate the amp and preamp sections independently. Doubtless there are good sonic reasons for this, but it does seem an odd limitation for an audiophile unit: You can't do stepped upgrades; the only place you can insert an external processor is via the tape loop; and the only subwoofers you can use are those that tap the signal off the speaker terminals.

Second, if you expect the S-300 to sound like NAD's past amplifiers, only better, you may be disappointed. To my ears, the brown-faced amps have always been emphatically yin: dark, chocolaty midrange, highs a little rough and rolled, and a robust bass that wasn't the last word in definition, but all listenable trade-offs given the extremely high performance-to-dollar ratio that's been NAD's stock in trade. Even fully broken in, however, the S-300 remained yang all the way – *excellent* yang, mind you, but still light, air, clarity – all masculine power allied to masculine grace. If you desire a bit of the eternal feminine, but don't want to go all the way to the Roksan, then you'd better read on.

Neil gives the Electrocompaniet ECI 3 the beauty prize, and it's easy to see why. A thick piece of clear Plexiglas gives the black faceplate a high-gloss polish that sets off the gleaming gold buttons; and the way the blue indicator light inscribes a circle as volume is raised and lowered is certainly trick. Rated at 70 watts per channel, the ECI 3 features DC-coupling from input to output, balanced circuitry permitting balanced or single-ended use, six high-level inputs, a remote control, and an exceptionally solid chassis. The preamp section can be operated independently (but not the amp), which gives it a strong leg up on the NAD S-300.

I found it difficult to come to one mind about the ECI 3, though. It's very refined, it never does anything unpleasant, it's always nice and polite and well behaved. But should those muted trumpets at the beginning of the Mahler so lack bite? (It's a funeral march, and the trumpet is muted precisely to give its sound a pinched, piercing character.) The phrase "inter-transient silence" is not typically part of my vocabulary, so when it pops into my head during a listening session, I pay attention. Where is the shimmer of cymbals, the gossamer delicacy of the rain stick, the almost etched clarity of the rest of that high-lying percussion behind Christy Baron on "Mercy Street" that I know is on the recording, and why does she sound at once ever so slightly veiled and sibilant? Whatever's going on, you hear fractionally less air between the notes than with the reference. The bass on the Holly Cole album is much drier here,

but Cole herself is listenable. I find the Audra McDonald album rather hot and slightly hard, so the ECI 3 softened it in a pleasing way. But there I am using another variant of that word: "pleasant."

To put these observations in the perspective of this survey, the Electrocompaniet is nowhere near as soft as the Roksan, compared to which the ECI 3 practically sounds as if it's on Viagra. Indeed, the biggest surprise was how it did not disappoint when the going got loud in the Mahler. Though it foreshortens both depth and width, it surrounds the orchestra with a nimbus both warm and grand; one of my notes reads: "extremely pretty with enough guts not to leave you dissatisfied with the big stuff"; another: "on orchestral material, marvelous grace & dynamic contrasts."

The curse of a survey is that it puts you in a constantly comparative frame of mind. I'm far from sure I'd come down quite this hard on the ECI 3 by itself, as it certainly let me listen for long stretches without contributing any fatigue. In conductors' terms, if the NAD S-300 is a something of a martinet, say, George Szell, then the Electrocompaniet suggests Eugene Ormandy, a man ever loath to let his orchestra produce an unpretty sound. Perhaps I should add that I really *like* the sound Ormandy drew from the Philadelphia Orchestra.

NEIL GADER COMMENTS ON THE NAD S-300 AND ELECTROCOMPANIET ECI 3:

Tonally, the S-300 is doubtlessly the whitest and most extended in the survey. After growing accustomed to the sweet, warm character of the Magnum and Roksan, I experienced the extended high frequencies and clinical nature of the NAD with something of a shock. On the Salonen Mahler *Third*, the brassy weight of the trombones and the piercing blast of the muted trumpets could not be characterized as either too soft or too aggressive – "balanced" came to mind. Clean, crisp transients, robust midrange, and delicate low-level resolution make the S-300 fit for any kind of duty – detailed, with excellent bass definition at low levels. When Holly Cole sings "Looking for the Heart of Saturday Night," the meaty piano chords directly behind her are resolved with a pleasing combination of individual note detail and extended decay. The NAD's reproduction of the resonant, refined acoustic bass and hand claps to the right of the artist are so wonderfully resolved, they left finger prints on the speakers. Still, her voice was not quite as three dimensional – definitely a little flatter than on Paul's resident preamp/amp combo from Marsh Sound Design and Quad.

On McDonald's "How Glory Goes," the sound is articulate but slightly constricted, at volume thresholds, lacking the air of the Marsh or Plinius. To compete at the highest levels, the S-300 needs that final bit of treble bloom, a characteristic hard to define, although the word "effortless" comes to mind, that trait that allows an amplifier to nearly transcend its electronic nature. Finally, the attenuated openness and air were isolated during McDonald's "Lay Down Your Head." As the orchestra welled up and the arrangement increased in complexity, the Plinius and SimAudio found daylight and transparency between images that the lightly veiled NAD could not quite match.

One nitpick was the econo remote control, obviously culled from the mid-priced series. At this level, a machined aluminum control would be a graceful compliment to the clean, muscular Silver Series. Finally, I want to emphasize that the S-300 exemplifies superior fit and finish. It feels as if it had been machined from a single billet of alloy. The impressive looking heat sinks were a necessity, since the S-300 runs hotter than a crock pot. Well-ventilated placement is a must.

As likeable as the ECI-3 was, I agree with Paul that there was an underlying darker character to the presentation, coupled with a general softness and lack of transient speed. The treble seemed not as purely extended as the Plinius 8150, the SimAudio I5, or for that matter, the NAD. But it was smooth and grain free. When Holly Cole sang "Train," her voice didn't have quite the airiness of the two references. The gritty, sandpaper-like texture from the wood blocks were smoothed over, substituting No. 400 sandpaper when the coarser No. 220 would have been more accurate. In the lower treble, though, I felt Cole's sibilance had a bit too much energy. My impressions on the Mahler echo Paul's: The trombones sounded impressively rich and warm (to this I'll add Sinatra's voice in "In The Wee Small Hours"), but the crisp transient attack of the muted trumpets were – well, really muted. And less involving, though at the same time, quite pretty and lacking residual edginess. Paul calls it refined. Let me add: forgiving. I also noted, after listening through all the integrated amplifiers to "Kiltory" from *Bitter Ballads* [Harmonia Mundi], how the psaltery would morph from the more aggressive treble drive reminiscent of a banjo to that of a smaller, more reverberant, warmer signature of a harpsichord. The NAD suggested more speed and a whiter, brighter soundstage in this example, while the Electrocompaniet lowered the ceiling above the instrument and gave up to the NAD a bit of soundstage width and depth.

One thought kept recurring as I listened to the Electrocompaniet ECI-3 at our two listening venues. When I listened to orchestral music, I'd find myself gravitating toward the ECI-3. But throw some pop or rock in the mix, and I'd veer away. It's a common audiophile dilemma: Some components excel at some genres of music and lag in others. Rock is all about drive, speed, crunch. Classical is much more about sophistication and nuance. And the ECI-3 is especially well suited to the more natural timbres of acoustic music.

Finally, as Paul pointed out, for me, the Electro won the "swimsuit" phase of the competition. While I could toss most components into a cabinet and slam the door, cobalt blue illumination against black Lucite is just too "McIntosh" to resist. Though, as with the NAD S-300, I wished the remote control had taken its design and materials from the amplifier.

Conclusion

As our commentaries are sufficiently descriptive to skip the usual scorecard, I'd like instead to place our survey within the current marketplace. While the Magnum is a superior value at $750, the others, priced from $2,000 to $2,500, face the stiffest possible competition from Plinius, whose 8150 has raised the performance bar high for this category of equipment. At $3,000, the Plinius may not seem competitive, but it offers 150 watts per channel, a superb phono stage, and superior sonics. Moreover, Plinius has redesigned its $2,200 integrated, the 2100i Mk II (see review), so that it is in effect an 8150 with two-thirds the power and no phono stage, which raises the value bar another notch.

An additional hurdle integrated amplifiers face is the proliferation of separates offering superlative performance at prices easily competitive. Neil's reference is his Plinius, but for most of this survey mine consisted of a Quad Series 99 preamplifier ($1,349, including a phono stage) driving either the Series 99 stereo amplifier ($1,149) or Marsh Sound Design's MSD A400s amplifier ($2,000). Good as the integrateds are, none (including the Plinius) is as good as either combination of separates. And I could easily have chosen others, say, Placette's passive preamps, Marsh Sound Design's new preamps, several models by Bryston, Musical Design, Monarchy Audio, and Rogue Audio. I've not heard all these, but if I were spending two grand or more on an integrated, I'd sure try to hear as many comparably priced separates as I could.

At one time, audiophiles bought integrated amplifiers because they were less expensive and smaller than separates. But given the cost and size of some integrateds, this is plainly no longer the case (the Quad stack occupies less shelf space than most of them). If I've learned anything from this survey, it is that the integrated amplifier has finally come into its own as a fully franchised High End component. I suspect that now when audiophiles elect to buy one, it is because they specifically want the single-box format. If I am right, and the integrated amplifier has come of age, then its performance must be judged by the same standards we employ for separates. That is what we have tried to do in this survey. – PS

MANUFACTURER/DISTRIBUTOR INFORMATION

Magnum IA170
Magnum Amplifiers
PO Box 5143, Wheaton, Illinois 60189
Phone: (888) 625-4620; fax: (630) 462-9414
www.magnumaudio.com
Price: $750 (phono $100 option)

Roksan Caspian
Distributed by May Audio Marketing, Inc.
2150 Liberty Drive, Unit #7, Niagara Falls, New York 14304
Phone: (716) 283-4434; fax: (716)283-6264
www.mayaudio.com
Price: $1,500

NAD S-300
NAD Electronics of America
6 Merchant St., Sharon, Massachusetts 02067
Phone: (781) 784-8586
www.nadelectronics.com
Price: $2,195

Electrocompaniet ECI 3
Distributed by: Jason Scott Distributing, Inc.
8816 Patton Road, Wyndmoor, Pennsylvania 19038
Phone: (215) 836-9944
www.electrocompanient.no
Price: $1,995

MANUFACTURER RESPONSE – NAD

…Unlike previous NAD amplifiers, the S-300 is based on an unusual circuit topology that does not rely on global feedback to reduce distortion. So while the sonic character of the S-300 is somewhat different from other NAD designs, its design concept remains true to the primary tenets of our philosophy: the belief that an amplifier should remain stable, with very low distortion, when driving real loudspeakers (the way we listen to amplifiers as opposed to the way we measure them). Amp designs without global negative feedback are noted for their excellent stability and low transient distortion (although they are more costly to produce).

After 25 years of successful budget designs, we wanted to let NAD's talented design and engineering staff create some products that were not tightly constrained by having to hit moderate entry-level price points… We thought faithful NAD enthusiasts would appreciate the concept of Silver Series' taking the philosophy of NAD to the next price level while still retaining an extremely high price-to-performance ratio.

To address Neil's comments on the pros and cons of Integrated Amps vs. Separates, I would like to point out that while not as conducive to incremental upgrades, there can be sonic advantages to this configuration. The S-300 has extremely short linear signal paths from source input to speaker output (this is why we do not use pre/out main/in on this model) that could not be achieved with separates. It is also a true dual mono design, which would be impossible to produce for this price point as a separate preamp and amp. Additionally, an integrated amp does not require an interconnecting cable between preamp and amp, which can save a few hundred dollars at this performance level. There is also the sheer simplicity and uncluttered look of a well-designed integrated that many people find appealing…

GREG STIDSEN
DIRECTOR OF SALES AND MARKETING
NAD ELECTRONICS OF AMERICA

Plinius 8100 Integrated Amplifier

Plinius has revamped the workings of its entry-level ($1,995) integrated amplifier, the 8100, until recently called the 2100i Mk II. The 100-watt 8100 is now an entirely viable alternative to its more expensive ($2,990) sibling, arguably best of class, the integrated 150-watt 8200, which you know as the 8150. The names have been changed – but according to Peter Thompson at Plinius, nothing else.

The 8200 and the 8100 both part company from the rest of Plinius' amplifiers, in that their outputs operate only in Class A/B bias mode. Plinius' power-amp separates (50, 100, and 250 watts per channel) are designed for pure Class A operation, although they are switchable to Class A/B to reduce power consumption. The 8150 has been quite a success (see review, Issue 115, a Golden Ear award, and mentioned frequently by a number of writers). Peter Thomson and the gang at Plinius have based the new 8100 on the 8200, leaving out some features while reproducing the 8150's essential sonic character.

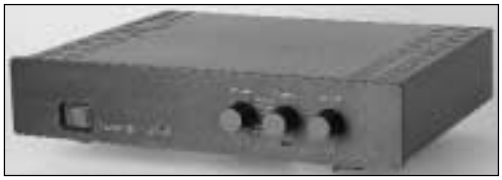
The list of features left out may make the decision for you between the 8200 and the 8100. The 8100 omits the 8200's phono stage. If playing LPs is still part of your musical life and you do not have a stand-alone phono stage, well, that's that.

The 8100 is rated at 100 watts per channel, a reduction from the 8200's 150. (The 8100's transformer is smaller and its power supply has less capacity — no surprises there.) For most listening, this will not be a real-world consideration, but it does make some difference when you want to fill the room with big symphonic music at levels that are probably larger than life. (The contra case is that adding a powered subwoofer to your system will lessen the demands on your main amplifier.)

Apart from the issues of phono section and power rating, the remaining differences are not likely to matter. The 81 omits the 82's "processor loop." The record loop does not have a "standby" setting. The 81's chassis is slightly smaller, and the amp is lighter in weight.

The similarities to the 8200 are substantial. The 8100 has two sets (for bi-wiring) of the same solid all-metal speaker binding posts as the 82. An IEC socket allows the use of detachable power cords, again a worthwhile endeavor. Both use a rotary knob to control volume, the clearly preferable means. The 8100 now has the 8200's remote control of volume and muting, although, as in the more expensive amp, source selection is made only by a manual rotary knob. The 81 has the same clean minimalist look and is available in black or brushed aluminum casework.

The similarities to the 8200's sound are remarkable. The 81 has the same ability to "lock on" to the music and deliver it in startlingly realistic focus. Within 20 minutes of frosty-cold delivery, the 81 was sounding like a clone of the 82. (Neither of the 82s I had here, nor the 81 appeared to need much in the way of breaking in, and the sonic consequences of powering them down are not as dire as reported with Plinius' Class A power amps.)



Reproduction of spatial phenomena is quite good. The 8100 is articulate in both space and time without causing fatigue. Dynamics and tone colors are full but not bloated. The dynamic range is lifelike without being overbearing. The balance of the entire presentation is slightly "front of the hall" in terms of focus and liveliness, rather than reposeful in the sense of letting great slow waves of music wash over you.

A guilty-pleasure musical example that showcases the Plinius family sound in general, and that of the 8100 in particular, is "Tariqat," from *A Prayer for the Soul of Layla* [Alula Records ALU-1005]. This CD splits the difference between Europop and ethnomusicology in rather stunning (studio, post-produced, but still stunning) sound. Keyboardist/synthesizer whiz/producer Jamshied Sharifi combines Middle Eastern melodies, West African percussion, and a pop sensibility to stir up a sonic cocktail with quite a wallop. "Tariqat" has extraordinary synth bass, pounding live percussion, and layers of vocalizing. The 8100 retrieves bits of detail (a softly spoken "Inshallah," perhaps?) from deep within the mix, in much the same way as the 8200 did from Enya's rather comparable recordings.

The 8100's ability to appear to convey "more music" does not seem to be the result of gamesmanship in the frequency or time domains. The magic seems to be in its exceptional performance at reproducing very small dynamic gradations throughout its substantial dynamic range. That there are a greater number of finer dynamic levels for the music to move between seems to give a more realistic impression of the liveliness of live music both in space and time.

Brief comparisons to two other wonderful integrated amplifiers are probably in order. The Jeff Rowland Design Group Concentra ($5,600) has a stately and more nuanced sonic presentation. And build quality and ergonomics commensurate with its price point. The Electrocompaniet ECI 3, in the 8100's $1,995 price range, has a sonic presentation that is the perfect yin-yang complement to the Plinius'. The Electrocompaniet lights the stage with warm incandescent light, at times seeming almost like candlelight, but the full measure of detail is nonetheless present.

The Rowland is in a class to itself. But between the Plinius and the Electrocompaniet, the choice has to be made on the basis of room acoustics, loud-

speakers, program sources, program material, and personal expectations. Reducing things to bumper-sticker dimensions, the Plinius is more lively and neutral; the Electrocompaniet voluptuously richer and more tube-like.

With the exception of the last quanta of oomph and bass drive, everything previously published in TAS about the Plinius 8200's sound applies to the 8100, at a savings of about $1,000 – quite an achievement.

JOHN MARKS

IMPORTER INFORMATION
Advanced Audio Technologies
1280 West Peachtree Street, Suite 160
Atlanta, Georgia 30309
Phone: (404) 872-2564
www.plinius.com
Price: $1,995

NEIL GADER COMMENTS

As JM points out, the family resemblance between the 8150 and the 2100i is uncanny. These siblings have the same rich midrange, muscular harmonic energy, deep pitch-defined low frequencies, and extended treble that have kept the 8150 at the top of the integrated-amplifier heap these many months. And as I discovered during a recent Los Angeles heat wave, it also runs decidedly cooler.

The decision to buy this or the 8150 will be contingent on the need for a phono input and the luxury of the additional headroom the 8150 affords. Unless you have high-sensitivity speakers, the greater reserves of the 8150 might prove useful. At levels above 90dB, the 8150 sounded untaxed and fairly bored with the demands placed upon its prodigious reserves. Less so the 2100i, but not by much, and this was with an 83dB low-sensitivity speaker, the ATC. In "Carnival" from *Nature's Realm* [Water Lily Acoustics], the 2100i presented greater tonal resolution from the tympani thwacks, and a more pleasing combination of impact and pitch. The blat of the trombones had added weight and expansiveness. In fact, the 2100i's sense of a somewhat larger and deeper soundstage, set a row or two further back, was the single largest distinction I could hang my hat on. Elsewhere in the frequency spectrum, there was little to distinguish one amp from the other. Low-level resolution and transient behavior remained exemplary on both units. And switching to a moderately sensitive speaker like the Audio Physic Tempo III well nigh eliminated the earlier reservations I experienced with the ATCs.

This is a fair time to mention that while neither Plinius model is in any danger of replacement, there are still some cutting-edge gains to be made. I don't find their upper treble entirely convincing. While undoubtedly extended, both Pliniuses suggest an element of constriction or leanness in this area that is not evident on top-rung separates. It reveals itself in massed string sections that ultimately lack the effortless sensation of the infinite. And that's essentially *the* difficult goal: reducing the sense of effort we hear in reproduced music. Of course, a fix like that would have the modest integrated amplifier encroaching ever closer into preamp-amp territory. But it never hurts to dream.

PMC FB-1 Transmission-Line Louspeaker

Britain originated the concept, the archetype, and the bulk of the compact loudspeaker designs whose goal is to pass on, in unadulterated form, an acoustical version of the input electrical signal. The British Broadcasting Corporation needed tools to ensure consistent broadcast sound quality, regardless of the origin or destination of the broadcast, and prime among these tools was the "monitor" loudspeaker. Britain's culture of individualistic tinkering responded to that challenge, and the tradition continues today. The FB-1 is PMC's first speaker designed specifically for home use, although it has already gained favor as a comparatively affordable pro speaker for five-channel recording and mixing. It is the usual tall rectangular-column shape, available in several wood veneers at standard or extra cost, with a black-fabric detachable grille fitted to the upper quarter of the front face (the back panel is matte black). The front vertical edges are slightly chamfered. Fit and finish are good for the price. PMC some time ago purchased the cabinetmaking concern they had been using, in order to get better control of cost and quality. The only unusual aspect of the FB-1's appearance is the full-width rectangular port (with black foam insert) at the very bottom of the front face.

The FB-1s overall sonic character is surprisingly "large," in bass extension, soundstage size, and macro dynamics, but first, some background on the FB-1's nearly unknown maker, PMC. PMC stands for Professional Monitor Company, which was established by two BBC alumni in England in the early 1990s. PMC started out making studio monitors for the mixing, mastering, and film and TV production and broadcast industries.

PMC's first product, the BB5, a large cabinet speaker with a fearsome-looking 15-inch radial-basket (exoskeleton) woofer, had all the characteristics borne by nearly all PMC's products: transmission-line woofer loading; high-order crossovers; flat (not contoured) frequency response; high power-handling capacity; and an industrial-design esthetic. PMC monitors have, over the past decade, established themselves as respected contenders in the pro field in Europe. Now Bryston, the Canadian electronics manufacturer that provides the power units for PMC's tri- and quad-amped self-powered pro models, is importing PMC's extensive line, and distributing it through pro and consumer channels in North America.

Bryston has decided to include the round-cornered, matte-black, three-quarter-inch composition-board plinths on all FB-1s at no additional charge (they are an extra-cost option in the UK). The plinths make for a nice visual balance, provide a welcome degree of tipping resistance, and bolt on very precisely.

The FB-1s' driver complement is a Vifa metal-dome tweeter and a seven-inch plastic-doped cone woofer that also appears to be from Vifa. Hook-up to the amplifier is by two pairs of sturdy brass binding posts in a recess on the lower back panel. These come with jumpers that are removable to allow bi-wiring. Carpet-piercing spikes are included.

Above the hook-up recess, the back panel has threaded inserts to allow the bolt-on attachment of Bryston's "Powerpac" basic amplifiers. These slender units, in effect, convert the speakers into active (self-powered) monitors. The Powerpacs come in 60- and 120-watt denominations, and provide for RCA phono, TRS phone, or XLR balanced connections. The FB-1s present a 90 dB sensitivity rating, and seemed an easy load to drive.

The engineering feature that separates this two-way speaker from just about all its price-tier competitors is transmission-line loading of the bass driver. Real transmission-line loading is difficult and time-consuming to engineer and manufacture.[1] It is in those respects similar to horn design. So, what we have here is a speaker, well-built, affordable, with well-regarded raw drivers, but using a minority-enthusiasm woofer-loading design.

How do the FB-1s sound? Well – smashing. (Smashing, of course, within context.) For starters,

1 Many manufacturers have futzed around with "quasi"-transmission line loading that usually boils down to a piece of foam blocking a rectangular slot underneath an internal shelf. No go.

they are revealing, almost up to the point of diminishing returns, past which you get fatigue. They sound crisp, clear, articulate, and most of all, dynamic. The claimed benefits of transmission-line loading include a frequency response that is more nearly independent of volume level, and that appears to be the case here. These speakers do not have to be played at high average levels to sound full or lively, specifically in that the bass level does not drop off faster than the higher frequencies, as the music gets quieter or as input volume is lowered. The microdynamic performance, especially in the vocal range, was good, but by no means revelatory. (But at this price range, I am unaware of any microdynamic revelations among speakers with fully extended bass.) Some of the liveliness can be attributed to a slight high-treble emphasis, in the comparatively narrow triangle and cymbal range, not the broader analog tape-hiss range. And some can be attributed to PMC's stated disinclination to "contour" midrange frequency response by a dip in the 1 to 2.5 kHz region.

PMC apparently also favors flat room response over flat on-axis response, and that leads directly to the one set-up requirement I discovered. The speakers should face straight ahead; minimal toe-in is the most that should be used. Toeing in the FB-1s to point straight at the listening position resulted in image instability and too much treble. Listener head rotation resulted in apparent motion of instruments on the soundstage. Straight-ahead speaker orientation, on the other hand, produced a stable soundstage slightly favoring height and width over depth. Not a requirement but still a factor is listening distance. I found mid- and far-field listening distinctly more enjoyable than near-field.

Properly set up, the FB-1s combined extended treble and neutral, comparatively low-coloration midrange with excellent bass extension. The organ pedals on Arvo Pärt's "Beatitudes" from the excellent new Panufnik *Westminster Mass* CD [Teldec 3984-28069-2] were reproduced to a depth I haven't heard before in similarly priced speakers. The timbral and spatial character of the low bass was slightly discontinuous with the midbass. But for a music lover who wants to hear more of the music yet stay within budget, a trifling discontinuity in the bass is better than a lack of bass.

Perhaps the highest praise I can give the FB-1s is that, listening to the Brahms *German Requiem* (the earlier Telarc, with Robert Shaw), I did not feel I was missing out on the orchestral or organ bass. The FB-1s conveyed a convincing and enjoyable musical gestalt. Even more luscious was Dagmar Pecková's new release featuring the Brahms "Alto Rhapsody" and Wagner's "Wesen-donck Lieder." (Supraphon SU 3417-2-231). The Shahinian Obelisks sound weightier and airier, but for the $500 differential, they should. And for listeners who are particularly sensitive to the Obelisks' slight plummy to velvety coloration from upper bass to midrange (as though Pavarotti really needs any extra weight), the PMC FB-1s might just be their first choice.

JOHN MARKS

IMPORTER INFORMATION

Bryston, Limited
677 Neal Drive, Peterborough, Ontario
Canada K9J 7Y4
Phone: 1-800-632-8217; fax: (705) 742-0882
www.bryston.ca
Serial numbers: 000557 and 8
Source: Importer loan
Price: $2,295/pair

SPECS

Frequency response: 22 Hz to 20 kHz ±3 dB (flat at 27 Hz)
Sensitivity: 90 dB
Impedance: 8 ohms nominal, 6 ohms minimum

ASSOCIATED EQUIPMENT

Marigo active power-line conditioner; Yamaha CDR-1000 CD recorder/player; Nordost Blue Heaven interconnect; Plinius 8150 integrated amplifier; Custom Power Cord Company Model 11 power cord; Nordost Blue Heaven speaker cables; RPG Skylines acoustical diffusion panels

MIKE KULLER COMMENTS

I found John Marks quite accurate in his description of the PMC FB-1 loudspeakers. Like him, I found the speakers to sound crisp and detailed, with surprisingly good dynamic contrasts and bass extension. In two words: clean and lively sound. I also preferred the speakers set back about 10 feet from my listening spot and aimed straight ahead, with no toe-in for best image stability. The FB-1s also presented a larger soundstage than I expected – tall, wide, deep, and reasonably coherent. In my relatively large room (27 x 17 x 10.5feet), they are able to play at satisfying levels with a good balance of low-frequency energy, even with their six-inch woofer and small cabinet. They are impressive sounding, indeed.

The FB-1s seemed to bring out the best in the amplifiers I mated with them. Using the Manley Reference 240s, the FB-1s highlighted their open, airy spatial characteristics, while the amp's lower-midrange warmth fleshed out vocals and instrumental timbres nicely. With the Carver Signature, percussion instruments came to life with its transient speed and there was added control and impact to the lower frequencies. Between the two, my choice would be the more expensive Manley amps with FB-1s because of the combination's richer harmonic detail and greater three-dimensionality. The Carver/FB-1 is a more likely combination because of the price, and it is one I could live with.

If these were $5,000 speakers, I could nitpick various areas of their sonic performance that should be better (JM identified most of them), but at their price, the FB-1s' shortcomings are minor and their overall presentation of music is convincing.

Certainly there are two-way, stand-mounted small monitors that cost much more than the FB-1s but that have nowhere near its bass extension. If you're in the market for such a speaker, I strongly suggest that you listen to the FB-1s first. In addition, there are numerous other speakers on the market in the FB-1's price range that may come close to its performance. Vandersteen 3As come to mind, reviewed by Robert Harley, Issue 122.

Transmission Lines

A transmission line is an open-on-one-end acoustical structure, usually folded into a labyrinth for compactness, that presents a complex variable load to the rear of a bass driver. Its cross-section and length, and therefore the internal volume, must be calculated with respect to the behavior of the bass driver, especially resonant frequency. It is not strictly necessary to position the driver perpendicularly to the near end of the line, and the FB-1s' driver taps into the line nearly one-third down its length.

The labyrinth, as it progresses away from the rear of the driver, is filled with an increasing amount of acoustical material (wool or foam or both) intended not so much to reduce sound pressure as to present frictional resistance to the velocity of the air as it moves. For this reason the "effective length" of a transmission line is often quoted as longer than its measured length. A transmission line is usually configured to terminate in the same plane and direction as the system's woofer.

The effective mass of air within a properly-designed transmission line increases as the frequencies being reproduced go lower, due to the damping material's diminishing frictional losses.[1] If the design approaches the theoretical ideal, at the lowest frequencies, where the frictional losses are lowest, the air at the end of the transmission line acts as a piston that propagates bass in phase (because of the time delay) with the woofer. Not surprisingly, transmission-line design involves a lot of "you squeeze it here, it bulges there" design trade-offs, and much trial-and-error listening.

This augmentation of bass frequencies by means of a variably constrained air mass to lower the effective resonant frequency of the woofer, and also by having the back wave emerge into the listening environment in phase, results in an extra octave of bass extension over ported designs employing a similar woofer. Furthermore, the roll-off in the bass is less abrupt than with ported designs, and the impedance curve the woofer presents to the amplifier is usually less erratic.

So why are ported speaker designs and not transmission lines the majority choice among speaker manufacturers? Well, there are the afore-mentioned issues of cost and complexity. And the resulting cabinets will always be larger than ported designs using comparable woofers. The starting point for transmission-line design is one-quarter the wavelength of the driver's resonant frequency. Many designers seem more inclined to put money into a larger woofer than into a larger and more complex cabinet. And, indeed, all but the most elegantly and expensively engineered transmission lines impart a characteristic sound to the bass, especially as it makes the transition from above the woofer's free-air resonance to lower regions where the design relies upon the augmentation effect to achieve flat response.[2]

In a perfect world, transmission lines would only be used for augmenting true low bass (by which I mean A = 55 Hz and below). PMC's designs that are not cost-compromised are three-ways with large dome midranges, and woofers from 10 inches to 15. In the case of a 15-inch woofer, the range of frequencies relying upon the augmentation effect for flat response is obviously narrower and less audible as such than in the case of a 7-inch woofer/mid. —JM

1 Although all frequencies propagate through dry air at the same speed (the "speed of sound" is the speed at which the pressure differential travels), the speed of the motion of the air itself in front and behind the woofer varies with the frequency reproduced. The transmission line's damping material (sheep's wool or a synthetic substitute) presents a frictional-loss load to the air behind the woofer that diminishes as the frequency decreases. The losses are substantial at the midrange and insubstantial at the lowest bass. It is precisely here that transmission-line theory and practice is farthest away from horn design.

2 Perhaps this discontinuity arises in part because the transmission-line-loaded driver's behavior above its resonant frequency is comparatively free of internal box-reflection colorations, while the lower frequencies are reproduced by a shifting balance of sounds from two sources.

BreviTAS

Seven Liters of Sensational Sound: Krix Equinox Loudpeaker & Totem Model One Signature

Not all of us aspire to own the biggest, meanest loudspeakers in the audiophile jungle. A pair of refrigerator-sized loudspeakers loafing in the listening room might even be an impediment to great sound, unless critical variables fall into place, compatible amplification and room size primary among them. I continue to trumpet and own compact speakers that fit my small listening room as comfortably as they conform to my musical tastes. (Not to mention that they can be taken down and put away if the listening space must accommodate a house guest.) Here is a small loudspeaker (about seven liters, internally) for enthusiasts who understand that every choice has built-in limitations but who are reluctant to "settle." This makes the Krix Equinox a great place to begin, and the Totem Model One Signature a great speaker to aspire to.

Krix Equinox

Krix Loudspeakers of Adelaide, South Australia, has been producing systems for movie theaters and homes for more than 25 years. A family-run operation headed by Scott Krix, its consumer line includes speakers for both home theater and High End audio, with floor-standers, subwoofers, and center-channel speakers. The Equinox is its smallest, a two-way, bass-reflex design about 12 inches high. With rear venting and an 88-dB sensitivity it is an easy load to drive. It uses a one-inch Ferrofluid-cooled tweeter with a doped-fabric dome and a six-inch doped-paper cone woofer with a cast magnesium basket, a one-inch voice coil, and an aluminum former. The crossover point is 1.9 kHz with a third-order (18-dB per octave) slope. Impedance is a nominal 6 ohms. A single pair of five-way binding posts are in back. The cabinet material is 17mm custom board with a lacquered wood veneer.

The sonic character of the Equinox is a mostly neutral blend of midrange richness and mellowness. It possesses a darker and more liquid balance that is more reflective of the yin nature as compared to the Totem's dryer, leaner yang. The Equinox plays impressively deep, with a slightly soft mid-bass and with upper-frequency detail that avoids the artificial etch of cut glass – an attribute that might be convincing during an audition but fatiguing on long-term ownership. The bass is warm with good pitch definition and gives the impression of having perceptible response into the low 50s Hz; that is, enough bass and dynamic life to give the impression that the Equinox is more than your average mini. There seems to be a slight plumpness in the mid-bass, not at all uncommon for speakers of this dimension, but it's a subtle effect that doesn't encroach on an overall impression of frequency spectrum in balance.

In keeping with its movie-theater heritage, the Equinox handles dynamics and fairly extreme volume levels with ease. Attaining ear-splitting crescendos is so easy, you should proceed with caution. (Owners of the fabled Rogers LS3-5a, produced under license from the BBC, might remember how easy it was to pin the little woofer to its basket.) The Equinox is a small speaker that likes to be challenged. And it got one when I cued up Audra McDonald's debut album *[Audra McDonald;* Nonesuch 79482-2]. "A Tragic Story" is spare on instrumentation, but long on dynamics and transients. The thunderous staccato bursts from the piano match note for note McDonald's powerful mezzo. The Krix delivered a stunning portion of the lower register weight and impact of the concert grand. McDonald's voice is at full throttle when she delivers the song's final note. Generally I reduce the volume until I understand a speaker's capacities, but this time it was too late. Fortunately, my fear of frying an Equinox driver was unfounded. The speaker sailed through with minimal compression and just a trace of peaky behavior and sibilance in the treble.

The equally challenging CD *Clark Terry, One on One* [Chesky JD 198] features trumpet player Clark Terry and various piano greats aboard a Bösendorfer concert grand playing jazz classics. On an exquisite interpretation of "Misty," the Equinox excelled in its reproduction of the demanding lower octaves, clean swift transients, and warm, full bodied decay characteristics. This difficult octave range sometimes grew a little thicker and lost some pitch precision as the piano's energy attempted to overpower the ability of the port to control its output. Treble arpeggios in

Billy Taylor's solo were clean, but a bit harder and cooler in character in the octaves below middle C. The general image placement was more forward than my reference ATC loudspeaker, consistent with a tweeter that is not overly extended and lacks air. The Equinox was impressive on this track in the way it delineated the warmer, more golden sound of the flugelhorn from the brighter, punchier trumpet on some of the others. It reproduced well the acoustic halo around Taylor's piano and the lower-level dynamic gradations.

Naturally if you push the Krix too hard on orchestral or organ passages, it will reach its limits. Hans Zimmer's soundtrack for *Gladiator* has cues that will certainly tax smaller speakers. On such occasions, the Equinox gently compressed dynamics. Images smeared slightly and soundstaging suffered a loss of focus, if only to a modest degree. All in all, terrific performance underscored by surprising dynamics and a balanced middle range.

Totem Acoustics Model One Signature

Totem Acoustics was founded in 1987 by designer Vince Bruzzese in Montreal. In 1989, the Model One became Totem Acoustics' first offering and was a success from the start. The Totem Model One Signature was introduced more recently and continues a High End tradition in which successful products are optimized or "hot rodded" for an even more discriminating enthusiast. Like the standard Model One, this edition is a two-way bass-reflex design with a rear vent. It has a sensitivity of 87dB and a nominal impedance of 4 ohms. The crossover point is 2.7 kHz. It uses a specially modified Seas metal-dome tweeter and a Dynaudio woofer with a hefty three-inch voice coil (large for this size driver). Cabinet construction is exemplary, with lock miter joints and a carefully executed radius on the edge of the port. Multi-borosilicate internal damping is used and veneers are applied internally as well as externally to equalize tension outside and in. The Signature edition includes a modified crossover network and silver wiring throughout, with larger gauge for the woofer than the standard version. Exquisite WBT binding posts, a double pair for bi-wiring and a small "Signature" medallion complete the back-panel layout.

Laura Branagan sang about it in the Eighties and it catapulted Janet Jackson to platinum-record sales – and "Control" is what the Totem Acoustics Model One Signature is all about. Its sonic character is tightly focused, clean, and as precise as NASA telemetry. While the Equinox is mellow and honey colored, the Totem is on the brighter side of neutral. It has a dryer sound versus the darker yin-like personality of the Krix. From top to bottom, the Totem has a unified quality that extends pitch definition throughout the frequency spectrum. Muddiness or

lack of speed don't seem to be part of this speaker's vocabulary. It provides an extra level of refinement that isn't easy to come by at any price. The Dynaudio drivers are clean and free from audible distortion. Transients are nimble and dynamic shadings in the midrange and treble are enticingly subtle. On "A Tragic Story," it displayed a more lively piano than the Krix – the Totem seemed to recover faster. The staccato attack of the piano was utterly clean and free from smearing. The Signature has the transient speed and transparency to bring to mind the great strengths of an electrostatic.

The brighter spectral balance was in evidence with a mezzo-soprano like McDonald. A powerful singer whose voice is equally rooted in her chest and her head, she lost a bit of weight and warmth through the Model One Signature. Her voice sounded beautifully detailed but slightly spot-lit. Soundstage position was back slightly in comparison to the Krix, maybe a row or two back of neutral. On "Lay Down Your Head," the Signature displayed sophisticated layering when McDonald's voice was joined by instrument after instrument until the entire orchestra appeared. Me, I'd opt for greater neutrality in the lower treble range, but I listened to a wide variety of material and found the deviation easy to listen through and compensated for by the speaker's other virtues.

The character of the Totem's mid-bass offered tonal control, rather than loosely creating the illusion of bass. In the battle sequence from the soundtrack to *Gladiator,* where one crescendo dynamically tops the previous one, the Totem never lost its composure. There was no audible port noise or cabinet resonances; the soundstage remained complete and dimensional. It probably didn't descend quite as deep as the Equinox, but the added degree of pitch-definition was musically more satisfying. And even the taxing juxtaposition of trumpets and strings answering one another was handled with *ease* – a four letter word that might summarize the Signature's manner in negotiating difficult passages.

The Signature also showed further refinement in the manner in which it handled dynamics. It was preternaturally stable under pressure. While the Krix will play at levels that will endanger your hearing, there are changes in its sonic character as the volume rises. Ultimately. I believe the Totem's careful and expensive cabinet engineering and premium construction quells resonances better. Its port has less of a signature, and its drivers, particularly the tweeter, behave with greater linearity under stress.

Like the Krix, the Totem will stumble a bit reproducing the weight of brass. During the production number "NYC" from Disney's television remake of *Annie,* the Totem reduced the impact of tap dancers pounding the wooden stage floor. Larger speakers present a satisfying whump when they make contact, but it's in the difficult upper-bass region where many small speakers lack the necessary energy.

All in all, the Model One Signature is a sophisticated, high-resolution design with leading-edge transparency.

Closing Thoughts

Both of these moderately efficient speakers revel in the presence of good amplification of 100 watts per channel. They will operate on less, but they achieve greater low-frequency extension and control when they can tap a deep power reservoir. The Magnum Dynalab MD-208 receiver (review, Issue 125) fits the bill exceedingly well.

Another point is room size. Smaller rooms will dramatically reinforce the lower frequencies and maximize the capabilities of these small speakers. For those determined to wring the last octave of bass out of their systems, both Krix and Totem offer powered subwoofers.

These speakers are two sides of the same coin – though one will set you back more of the coin than the other. The finesse and transparency of the Model One easily justifies the premium. If musical refinement can be compared to the artistry woven into a tapestry, I'd conclude that the Totem has crafted a sonic picture with some of the finest thread in my experience. While not the Totem's equal, the Equinox should nevertheless give price-point competitors like Dynaudio's Audience and Energy's Connoisseur Series some nerve-racking fits down the road. Within their price parameters, the Equinox and the Model One Signature both provide great musical satisfaction in this size class. And equally as important – unless you value speakers purely by the number of drivers they contain – both make you feel as if you've gotten a bargain. Building an audio system is a long journey, but as this pair of speakers demonstrates, seven liters will take you a good way down the road.

NEIL GADER

MANUFACTURER/DISTRIBUTOR INFORMATION

Krix Equinox
Moondance Imports
1881 S. Broadway, Denver, Colorado 80210
Phone: (303) 777-4449; fax: (303) 871-0376
Source: Distributor loan
Price: $599/pair

Totem Model One Signature
Totem Acoustics
4665 Bonavista Avenue, Montreal, Quebec H3W 2C6 Canada
Phone: (514) 259-1062; fax: (514) 259-4958
www.totemacoustic.com
Source: Manufacturer loan
Price: $1,995/pair

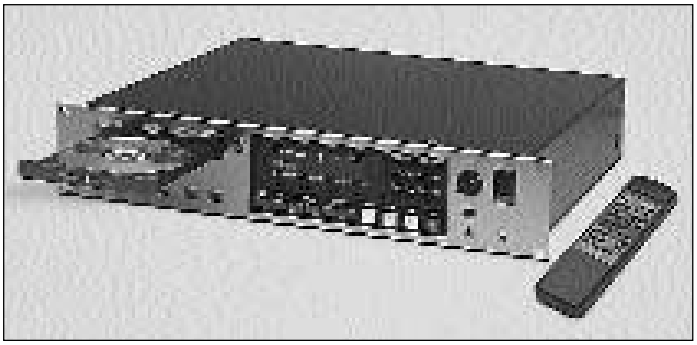
Yamaha CDR1000 CDR Recorder

Yamaha's CDR1000 combines a rugged professional CD transport with audiophile-quality high-bit recording and processing technology in one box, at a remarkably low price. This means that anyone with enough technical skill (and patience) to make good analog cassette tape copies can transfer analog-sourced music (from LPs or tapes) to CD copies, clone or compile music from digital sources, and even make high-quality live stereo recordings. What makes all this possible is blank optical-media discs that contain a dye that changes color when activated by the special high-intensity laser in a CD recorder. The dye dots represent the digital data like a pressed CD's pits.

Over the past year or so, according to statistics published by the consumer-electronics industry, CD recorders have racked up surprisingly robust sales. Several trends combined to produce this growth. First, the price of CDR recorders has spiraled down to well under $1,000. Second, the price of blank recordable CDR discs has dropped even more. Third, the advent of rewritable CDR discs (CDRW) and machines that can erase and re-record them, reduces the waste of blank discs, although at the cost of limited playback compatibility. Finally, major sectors of society, at work, school, or home, have access to increasingly sophisticated computers, and enough people are now acquainted with computer CDROM drive recording ("burning") that recording music on a CDR recorder at home is not as daunting a task as it was.

There are two classes of CDR recorder. Nearly all those intended for the consumer market have, until fairly recently, required the use of copyright-cleared blank discs labeled "For Music." These cost more because their price includes a generic royalty, which is supposed to be distributed to record labels to compensate them for lost revenue. There seems to be a trend among hardware manufacturers, though, to make new consumer machines that can use generic recordable CDs, such as you would use in a CDROM burner. In any case, make sure the machine you buy can use non-copyright-cleared blank discs. Being a professional unit, the Yamaha CDR1000, of course, uses regular blank discs.

Rewritable blank discs, which the CDR1000 can also use, constitute another story. Recorded and finalized CDRW discs will play only on CDRW-compatible CD players, which are new and few, whereas recorded and finalized CDR discs will play on all CD players (but not on most DVD players). Whether it makes sense for you to use CDRW discs for all your recording will depend upon where the discs will be played. However, in some cases, it may make sense to use a CDRW disc as an intermaster, to get a program sequence glitch-free, before you then transfer it to CDR.



My advice to potential CDR recorder purchasers formerly was to evaluate the quality of the transport mechanism, then the quality of the digital and analog electronics, and then the interface, that is, the arrangement of buttons, knobs, switches, and readouts by which you tell the machine what you want it to do, and it tells you what it is doing.

But that was before I encountered a CDRW recorder with an interface that seemed designed by sadists out of sheer perversity. A single large knob that could turn left or right, or hard left or hard right, or be tapped inward, or held in, controlled completely different functions depending on whether the program source being recorded was analog or digital. I am sure that once you got the hang of it, it was merely excruciating, but life is too short. After 30 years in this game, I prefer my electronics to be of the PhD variety – "Push here, Dummy."

The Yamaha Professional CDR1000 CDR recorder's interface is not quite that simple, it does take some manual-reading, but its interface is certainly more intuitive and easier to use than the NAGRA D's. The manual is clearly laid out and usually unambiguous, certainly less ambiguous than is the norm. In Yamaha's defense, let me point out that the CDR1000 has so many features and capabilities that giving each one a push-button of its own would require a huge faceplate, or microscopic buttons.

I also applaud Yamaha for including a remote control at no extra charge, for having no functions that are remote-control only, and, because the remote control is of the infrared variety, for allowing the machine's receptivity to remote-control commands to be disabled by use of the front panel's catchall "Utility" function. This exemplifies the level of practical detail that went into this product's planning. Yamaha's engineers gave thought to the possibility that in a studio, a live-recording environment, or a home, a bounced infrared ray from some other electronic device's remote control just might ruin an important recording, and so they provided protection against it. Good work.

Good work sums up just about every aspect of this unit. In those few areas where the CDR1000 might lose out against similarly priced playback-only machines, when evaluated only for playback in a home music system, two reasons are apparent. First, there is no free lunch, and second, the CDR1000 is a no-compromise design intended for professional environments. However, I can easily envision the High End customer who would be rapturously happy with the CDR1000: the musician or music lover who wants to make live two-microphone recordings and needs a machine that can do double-duty as a good CD player.

There are two reasons that the CDR1000 immediately becomes a benchmark for affordable live digital stereo recording. Its onboard analog-to-digital converters are high-quality 20-bit, 64-times oversampling, which means that the 16 bits that end up on the CDR will have greater linearity. Even better, to go from 20 bits to 16, the CDR1000 includes Apogee Electronics Corporation UV-22 encoding. When this first entered the pro market in a stand-alone unit, it cost more than twice what the CDR1000 does. So, if the CDR1000's capabilities fit your needs, it is a phenomenal bargain.

Many engineers prefer UV-22 over Pacific Microsonics' HDCD process as a means of going from higher bit rates down to 16. I have experienced both in professional use. I am not ready to state a general preference; projects differ. But without question, UV-22 is an extraordinarily good-sounding process. It has an analog-like warmth, and requires no decoding at the player end. As it is a steady-state and not dynamic process, it engenders no spurious artifacts.

Where UV-22 goes its own psychoacoustic way is that, in parallel with its redithering operations, it adds to the signal being recorded a proprietary steady-state random digital noise signal at about 22 kHz. This is like the bias signal in analog tape recording, which, by jolting the magnetic particles, allows for better dynamic linearity. However, that is at best an imperfect analogy. Suffice it to say that the proof of the pudding is excellent. Digital throughput and external digital clock sync mean that with a blank disc in "record pause," the CDR1000 could be used as a UV22 processor for recording with other devices, such as hard disc recorders. Nifty!

As a practical matter, with the CDR1000, a good-quality single-point stereo microphone such as Audiotechnica's AT-825 ($379), and a good stand, you will have a 20-bit live acoustical recording rig of enviable simplicity and quality. The CDR1000's recording quality is so good, the limiting sonic factor will likely be the microphones. The CDR1000's only limiting practical-use factors are that DAT decks are not limited to CDR's 74-minute maximum length, and rewinding a DAT is quicker and easier than erasing a CDRW track. On the other hand, the CDR1000 has something I have never seen on a DAT recorder: a digital input buffer that

can store up to nearly five seconds of input when the deck is in "record-pause." Hit "record" and your recording starts with the previous 4.9 seconds. The monitor feed will be similarly delayed, but that's a small price to pay for a second chance that saves the beginning of a live event.

The CDR1000 dubbed live recordings and CD tracks faultlessly,[1] and with several welcome features. In addition to one- and all-track sync recording, the CDR1000 can be set to "autofinalize," a CDR upon completion. (Finalization is the process by which the table of contents is written at the head of the disc.) This allows set-and-forget operation.

Evaluated solely as a player, the CDR1000's dynamic and detailed sound quite bowled me over. A touch timbrally cool, perhaps, but not dry, and involving despite the coolness. The CDR1000's analog outputs are on XLR balanced jacks, so most home equipment will require the use of adapters or cables that are XLR to RCA. I also found the sound from the CDR1000's headphone jack unusually good, with plenty of drive, detail, and about as much imaging as you can get out of conventional stereo heard with headphones.

The only fly in the ointment is that the CDR1000's cautious engineers, realizing that a lot of these babies will share racks with hot-running power amps, provided a fan that runs all the time, and cannot be defeated short of snipping wires. I found the fan noise distracting, and had to place the CDR1000 to minimize it. For a live recording, I'd make sure that the CDR1000 was at a distance, with the fan pointed away from the mikes, and with a piece of acoustic foam as a lean-to roof over its rear.

The CDR1000's High End recording capabilities would be under-utilized in most consumer applications, but its attractive price may tempt you into amateur live recording. Factoring in its respectable playback performance, it is clear that Yamaha has come up with a winner.

JOHN MARKS

MANUFACTURER INFORMATION
Yamaha Corporation of America
6660 Orangethorpe Avenue
Buena Park, California 90620
Phone: (714) 522-9105; fax: (714) 670-0180
agharapetian@yamaha.com
Serial number: PZ01106
Source: Manufacturer loan
Price: $1,799

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1 I do not have a digital audio workstation/editing suite, and that is the only way to perform a bit-to-bit verification to confirm that there is 100 percent data integrity between master and clone. I can report that there was no audible degradation with straight digital copies, and that the UV22-enhanced digital copies sounded slightly more alive.

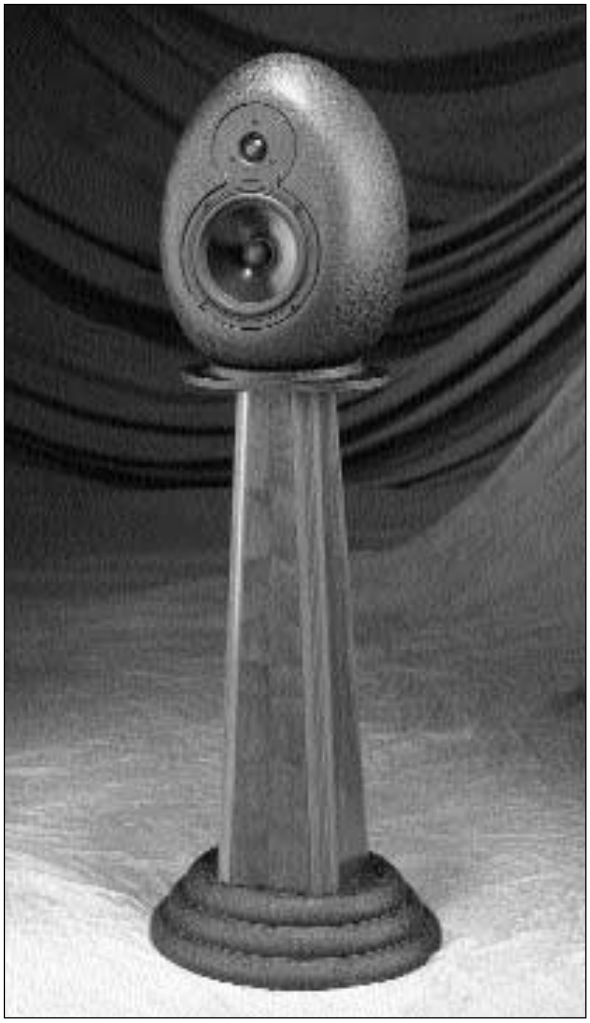
Waveform MACH MC: The Egg Comes First

Listen to this speaker at your peril. Because once you have heard it, you will *never* be able to forget that with almost every other speaker you listen to, you are hearing colorations conspicuously missing from this one.

Why an egg is a better shape than a box for a speaker enclosure has been understood *in theory* for a long time. And indeed there was an egg-shaped speaker some 20 years ago from F3 Lyd in Denmark ("lyd," pronounced more or less like "Luther" without the "er," means "sound" in Danish). But eggs are harder to make than boxes, and the idea has languished since then. The theory is easy to understand in general outline: The acoustic relationship of a box to a sound wave varies with the frequency of the wave in an irregular way, because the two dimensions, length and height, of the front of the box are different multiples of the wavelength as the frequency changes. An egg, by virtue of its curved shape, has many characteristic lengths attached, continuously varying diameters in different directions across the front, in a way that makes the relationship to the wavelength vary more smoothly as the frequency (and hence the wavelength) changes. Naturally, the details of this are messy – the stuff of number-crunching computer programs and complicated mathematics, not audio reviews. But the sonic effect is conspicuous, to say the least.

The MC is an enclosed speaker. But its egg-shaped enclosure makes it sound completely unlike an ordinary rectangular box. My motto "acoustics is everything" seems to apply here. This egg business really works. Not only is enclosure-induced coloration vanishingly low, but also invisibility of the speakers as sound sources is so nearly complete that this speaker almost redefines the idea of this audio goal. Only the late and much lamented Soundwave PS 3.0 and a few others – like the Gradient Revolution – with specialized work on radiation patterns, can compete with the MC for absence of radiation-pattern coloration and invisibility as source.[1] The whole experience of listening to the MC is startling, as far as these important things are concerned. And associated with them is a quite startlingly excellent stereo imaging performance. Every audio review nowadays seems to promise this, but the MCs actually deliver.

Otherwise, the speaker has certain limitations and problems. It has no real bass (-3 dB at 70 Hz), although a little bump at 100 Hz in LS3/5 fashion adds warmth. For low bass, a subwoofer is a necessity. Waveform's top model adds a bass unit to a similar mid/tweeter unit, and one hears why immediately. The top end of the MC is not as smooth as it might be, with some small peakiness in the 3-6 kHz region, and the middle of the midrange around 800



Hz is a little prominent over the lower mids. The Canadian 24-dB-per-octave crossover (it seems to be a national dedication) takes its usual toll of purchasing low distortion via steep slopes (the speaker does have very low distortion) at the price of integration, with the tweeter sounding a bit separated, an effect increased by that peak. The MCs are certainly "flat" as speakers go, according to the Canadian NRC measurements provided by Waveform and my own as well. But ironically, the deviations, small though they are, combined with the crossover, actually make the speakers not entirely true to timbre, in spite of

1 An at least equal lack of enclosure coloration can be obtained from speakers that use the whole wall as a baffle, in the manner of the amp-speaker set-up of Christensen and Ladegaard that I described in Issue 124. That, however, is not just a speaker, but a construction project, albeit a worthwhile one.

their low-coloration enclosure. Try, for example, Ella Fitzgerald's *Let No Man Write My Epitaph* collection. The MCs coarsen her voice a little, giving it a somewhat hoarse quality not usually present and, I think, not present on the recording (the peakiness of the old mikes lies further up than the frequency range in question here). The sound of her voice on the MCs is not unpleasant or blatantly unnatural. It just is not quite right. A little DSP EQ from the Z-System's rdp-1 to make the speaker truly flat according to the NRC (or my measurements) does wonders for this. As Peter Ace once said, all speakers are (more or less) flat nowadays except for little zings and sags, but it is where the zings and sags occur that makes all the difference.

Once the speaker is made truly flat, it reproduces music with a compelling naturalness. The Water Lily Philadelphia Orchestra recording [Water Lily WLA WS66] sounded amazingly realistic, save for lack of deep bass. Vocal music had a surprising rightness, in unexpected directions. For instance, the Germanic vowel sounds of the soloists in Bruch's *Das Lied von der Glocke* [Thorofon DCTH 2291/2] were unprecedentedly correct, revealing that most speakers do not quite reproduce complex vowel sounds properly. Without the EQ, the strings on the Bach/Sitkovetsky *Goldberg Variations* [Nonesuch 79341-2] were again a little hoarse, but with the EQ, they snapped into something quite close to exact tonal correctness, in an uncolored and expansive sound picture. One of the striking things here is the stability of such soundscapes. If you move from side to side, of course, the images shift. But you have to go to extremes to "hear out" the speakers as sources at all. Over a window many feet wide, far wider than usual, the speakers remain inaudible as separate sources. The egg enclosure seems to be extremely effective at generating a uniform radiation pattern, at least across the midrange, broadly conceived. All the speaker really needs is a little adjustment as to exact response and crossover. (The 24-dB Linkwitz-Riley crossover has almost never worked, in my experience. The (unequalized) room sound of the MCs at large distances is truly strange through the crossover region, and one hears this even relatively close to the speakers as well.)

And yet, with that little EQ to straighten things out – or even without it – something emerges here that you really need to encounter. Waveform is a factory-direct manufacturer, without dealers. But it participates in shows, and you could perhaps arrange to hear a demonstration at the home of an owner (try the web). If you are interested in low-coloration sound, the last word on sound from speakers that does not sound like sound from speakers, I urge you to listen carefully to the Waveforms. What they do well – and it is something really important – they do well almost incomparably. If you can tolerate 24-dB-per-octave crossovers and don't mind adding a subwoofer, you could even take a chance on ordering the things sound unheard. Waveform says no one ever sends them back, although returns for full refund are allowed. One way or another, listen to it. Long live the egg!

ROBERT E. GREENE

MANUFACTURER INFORMATION

Waveform
R.R.4, Brighton, Ontario KOK 1H0 Canada
jotvos@waveform.ca
Phone: (613) 475-3633; fax: (613) 478-5849
Source: Manufacturer loan
Price: $1,085 each (available individually for surround use); stands – $495 each

SPECS

Dimensions: 11.75" diameter, 15.25" height (exclusive of stands)
Weight: 27 pounds
Stand height: 23" plus 3.25" thick base
Impedance: 8 ohms, nominal; 6 ohms minimum
Drivers: 1" silk dome, 6" pulped paper cone
Head material: Cast aluminum
Crossover: 4th order, 24 dB/octave Linkwitz-Reilly; crossover frequency 2,200 Hz
Sensitivity: 84.5 dB/2.83 volt input/1 meter
Frequency response: 85 Hz-20 kHz, +- 1 dB
Room response: 70 Hz-20kHz, +-3 dB
Warranty: 10 years, manufacturer's defects
Guarantee: 30-day money back guarantee, including freight

MANUFACTURER'S RESPONSE

Issue 124 has REG alluding to reconfiguring his listening space somewhat like the LEDE (live end-dead end) situation he encountered in Denmark. Hints of LEDE or RFZ (Reflection Free Zone) rooms are not at all recommended for the MC. The three-dimensional output of a loudspeaker is a function of its baffle area. In order to make a speaker reproduce the directivity of a talking human, the dimensions must be similar to that of a human head. Below 1 kHz, there is little reinforcement from the elliptical baffle.

When such a loudspeaker is auditioned in a "normal" domestic listening environment, much of the off-axis sound is returned to the listener from the side and rear walls, as well as from the ceiling, and this contributes to the overall natural timbre… In a selectively absorptive room, output can become seriously skewed and is not returned to the listener evenly, since the materials in the room absorb much of the dispersion at peculiar frequencies. This corrupted output would occur when listening to a real person speaking in this environment as well.

Loudspeakers don't sound like the real thing, even though some people have at times been convinced they do. To compare a speaker to some absolute is thus fraught with risk from the outset and why it's imperative to compare speakers to each other. I sent REG a copy of ETF 4 (Energy Time Frequency 4, an acoustic software program) over a year ago, and it is a disappointment to still have no knowledge of his room's RT 60 (Reverberation Time) or EDT (Early Delay Time). Since "acoustics is everything," we hope that in future, Waveform loudspeakers will be auditioned in normal rooms where timbre nits are not apparent and music reigns.

JOHN ÖTVÖS
PRESIDENT, WAVEFORM

HP's WORKSHOP

The Wisdom Audio M-75: A Planar/Magnetic Hybrid System

This review has turned out to be an investigation of the Wisdom Audio Model 75 speaker system. It was evident almost from the start that this hybrid moving-coil/planar-magnetic system was a chameleon. And the mystery that we had then to solve was this: The speaker is either far more neutral than anything in our reviewing experience, or it could, in some way we could not divine (without a measurements program), interact with the electronic components that precede it in the audio chain to highlight, even exaggerate the inherent characteristics of those other components. Complicating matters and causing us to go off the track and on intriguing side trips were some underlying issues that, until the last day of our listening sessions, made us fear that we had come up against one of audio's most fundamental dichotomies: Would we, as pursuers of the absolute, rather have an honest and uncolored speaker that tickled the intellect, or a more colored simulation of the real thing that moved the soul?

That question is one we have danced around without ever reaching a resolution, because our unspoken assumption has always been that we couldn't have both.

Speaker systems have, historically, always been the most highly colored players in audio's chain of components. Each has its own quite distinctive personality – a concatenation of character "traits" that interact in surprising and quite often flattering ways

with those parts of the chain that precede the speaker.

Let me come at this from another perspective: Consider the speaker as the narrator of the audio system. The teller of the tale. The question then becomes: How reliable is this Scheherazade? We have accepted, in principle, the notion that the narrator should tell the truth and nothing but, like the Fair Witness in Robert A. Heinlein's *Stranger in a Strange Land*. But do we ever know better: Speaker systems have been wildly unreliable narrators since the dawn of recorded sound.

You might attribute their lack of reliability, analogistically, to each speaker's individual biases, i.e., their own set of highly idiosyncratic "character" tics and traits, much like those that separate you from me, they from you, and each from the other. We might further analogize these as bendings of the truth, rather like the warps and weaves of imperfect window glass, which can make it sticky going when you're trying to see clearly what the "characters" of the things on the other side of the window are really like. The inherent sounds of any other components in the system are thus subject to the speaker's *interpretations* of the truths the other elements are trying to tell. (Imagine someone who doesn't like you trying to write your biography, or someone who does like you smearing the preserves on thickly with a knife.)

The best designers in the field and their enviable brethren, the most commercially successful, have over time devised narrators that tell a good story, not necessarily one that is truth, but one that is emotionally and maybe aesthetically satisfying. These are the stories that all of us, as audiophiles, have grown up on and incorporated into our way of perceiving reproduced sound in the home. Thus, we have swallowed the hook with the fish. In other words, the speaker systems we cherish tell the most alluring lies. Or selected half-truths, as in, say, a system like the early Quad electrostatic. Isn't the Devil the master of the selectively told truth?

It took us a long while to rule out a serious interaction between the M-75 system and the amplifiers that drive this two-way system. And given that the system has an electronic "brain" filled with ICs (some are op-amps), we cannot be certain, beyond a reasonable doubt as they say in jurisprudence land, that there is not some potential for mischief here. But, as the Red Queen said, verdict first, evidence later. The verdict: If there is a more neutral transducer (top to bottom) commercially available in the marketplace, I haven't heard it. And in all probability, this system could be made even better.

I

The Adrenaline M-75 is one of three models manufactured by Wisdom Audio, a Carson City, Nevada, company. There is a smaller one-piece (per side) version of the speaker, the M-

50, and a more upscale version called the "Adrenaline Rush" that has a much larger woofer array than the M-75, and an extensively hand-tweaked midrange/tweeter tower. The M-75 costs $38,000 in the lacquer finish we had for evaluation, which, considering that it is large, and imposingly well-built, sounds like something of a bargain in the High End speaker sweepstakes. Depending, of course, on how "good" it sounds.

Its main attraction is a 75-inch tall, 1.25-inch wide push-pull planar/magnetic element housed in an infinite-baffle backward-sloping cabinet with a quite narrow footprint. No dipole this.

I'm not going to call this element a "ribbon" and neither should you, since it is similar, in operating design, to other planar units on the market and quite dissimilar from the trickier design of a true ribbon (for example, the tweeter element of the top-of-the-line Magnepan speakers). Earlier versions of this planar/magnetic unit were first manufactured in l996 by Bohlender & Graebner, a separate company that preceded Wisdom and that sold – and still sells – custom-made and dipolar models to other manufactures (e.g., VMPS and Genesis). Tom Bohlender, the chief honcho, started Wisdom two years ago as the outlet for a speaker system of his own design.

The M-75 has two woofer cabinets, each containing two heavy-duty under-hung (short voice-coil/long magnetic gap) 12-inch drivers and a separate electronic "brain" of considerable complexity that allows him to personally tune both the woofer and planar sections for flattest performance in any room. And to make sure there are no mistakes, Bohlender himself comes with the system to do the tuning.

The system, as you may deduce, must be bi-amplified. Its sensitivity, says Bohlender, is 88 dB at 1 watt/1 meter and this means it "likes" power. Situated in Music Room 3 here in Sea Cliff, we found that 140 watts (tubed) was the minimum we could get away with, and then not cleanly on the biggest orchestral peaks played *fortissimo*. We're talking 140 watts on the midrange/tweeter planars. For the bass, we hooked up the mighty Krell FPB 600 STc, whose low-frequency performance is little short of stunning, and left it in place throughout the long and nearly always revelatory listening sessions. For purposes of our sanity (such as it is), we kept the cabling as a constant, and that means, throughout the days, weeks, and months of testing, we used Nordost Quattrofil (single-ended and balanced) as interconnects, and David Blair's Custom Power Cord Company Top Gun HCFi as the power cord for all the amps save the Krell, which comes with its own non-detachable AC cord. The only exceptions to the Nordost rule, otherwise, were a length of Siltech SQ-80 B/G3 XLR cable between the digital-to-analog converter (the Burmester 969) and the line stage, along with a single-ended Forsell Air Reference digital cable between the Burmester 970 CD player and its decoder. Oops, almost forgot – we used the Nordost SPM Reference speaker cables between the amplifiers and upper and lower sections of the system.

Scot Markwell oversaw Bohlender's preliminary set-up. I took over for the last hour and the fine-tuning. With one exception, the settings that yielded the flattest frequency response were those that sounded best to me. (One of the tricks we learned along the way was to keep the rotary controls on the "Brain" either below or at their "0" points, lest we invoke amplification from the dreaded op-amps.) According to Bohlender's microphone/meter set-up, that response was flat (within one dB) way out past 20 kHz. However, when Bohlender set the system for the flattest frequency response at the other end of the spectrum, so response could be extended below *circa* 32 Hz, the bottom octave sounded overblown, wobbly, and "plummy" (as the British once were wont to say). To get the bass as taut and articulated as that I hear in the hall, we had to sacrifice flat response in the very bottom octave.

Well, not exactly sacrifice, since, as soon as Bohlender left the premises, we installed the Carver Sunfire Signature Cube (our old standby when we want those subterranean rumblings and organ pedal points), set to roll off above 30 Hz with a minimal phase angle. You laugh? Four 12-inch woofers equalized in two fairly substantial cabinets and we have to add a $1,995 sub-woofer? Right. At this point, we achieved, by slightly cheating, a truly full-range system, for about half the cost of several super systems we have auditioned of late.

II

Now we come to the tricky part. And I shall not, in the space available, be able to document the step-by-step progress of our adventures in trying to settle the conundrum this speaker set for us. Just keep in mind: If we had stopped the reviewing process at any point along the way, including our listenings on the last day before deadline, we would have been dead wrong about this speaker.

Our first impressions of the system were that it was a dramatically good reproducer, fully living up to the best advance word we had heard about it, and belying much of the bad stuff simultaneously circulating, some of which was centered on its earlier configurations.

Then as now, the Wisdom reproduced the stage upon which the orchestra players sit, and the dimensions of that stage, with a precision quite unknown to us. Oddly, the effect was mostly confined to the stage and its shell's acoustic, not to the ambience of the hall itself, where the Nearfield Acoustics' PipeDreams reign supremely and seductively with an almost wrap-around, near-surround effect that is their chief calling card. By way of contrast, the M-75s reproduced the depth and width of the stage with a precision that was uncanny, so much so that every other speaker system in my experience sounds as if it is adding fake or false depth, a simulation of layering, rather than distinct rows of players with clearly defined seats (or positions), with "air" and space to the front, side and rear of each. When other "good" speaker systems present layering, they do so more amorphously, so that you may think, "oh heavenly Hannah, that depth goes into the back yard," but is a *further* kind of depth instead of a *farther* kind,

in other words, distance you can only guess at, rather than feel you can measure.

What am I saying here? Something like this: The M-75 captures the "volume" of the stage itself (not the volume of space of the hall in front of the players, which is only ordinarily in evidence, compared with the PipeDreams) that is the essence of continuousness. By contrast, when other speaker systems reproduce the soundstage in front of the mikes, they impressionistically create strands of depth, layered, but somehow separated (as in strands) as opposed to being part of a continuous texture, not only folded but wrinkled in time/space. (Watch out, here comes another analogy: Suppose you imagine the players on a rubbery stretchable material, like a balloon's surface, versus the players in fixed positions on a genuine wooden floor of fixed dimensions.)

One startling consequence of this fixity of staging and imaging is that orchestral instruments, given a minimally miked recording, stay the same size and are not subject to the yo-yo dieting effect that seems to occur in the interface between other speaker/amplifier combinations. What this means is that when played loud, the instrument doesn't get bigger – but its soundfield does. Given that, a recording, like Dave Wilson's of Debussy *Sonata for Violin and Piano* (played here on the cello), gains realism from the focused and consistent size of both instruments. And when the cellist rocks around sideways, you hear this instead of a bulging too-close-to-the-mike effect. [Wilson W-8722. Find it; it's worth the search.] More fascinating yet, the piano, such a living bitch to record, is so exactly positioned that you can tell, even without reference to Wilson's notes, which way it is oriented. (Hyperion Knight, in his electrifying reading of Stravinsky's *Petrouchka* for solo piano, also on Wilson [8313], has, until now, sounded a bit indefinitely positioned, when it comes to the spatial deployment of the keyboard. No more. Another recording worth the search.) Even on certain kinds of popular and dance music ("Don't You Want Me, Baby" [Virgin 466-12B, a 45 rpm single] or Propaganda's *Machinery* [Virgin/ZTT 12-ZTAS 12]), there is clear pleasure to be taken in the precise construction of the sonic soundfield, where the dimensions of depth, width, and placement are manipulated for maximum emotional effect. Maybe not absolute, but oh-so-spectacular in that pancreatic way.

Another aspect of the speaker's performance independent of any of the associated equipment with which you use it is the fine-tuned balance between the woofer and the planar units, centered in the 150 Hz range. I have no idea what kind of jiggerypook Bohlender hath wrought here; the crossover point is sonically seamless, although the "character" of the woofer isn't quite. But this is no case of a troubling discontinuity. The woofers complement, in a way that interlocks convincingly, the planar/magnetic panels. In listening, one accepts a certain amount of difference between the two sections – and not because they sound exactly alike, but rather because

each *enhances* the sound of the other.* For those who think in conventional design terms, the satisfying blend I observe here is puzzling, given the proximity of the crossover point to the middle frequencies (that l50 Hz range) and the difference in the materials used in the drivers' construction. Could it be, I have come to wonder, that Robert E. Greene in his lust for flat frequency response *über alles* has a genuine point to make? Unlike him, I do not have perfect pitch and so small frequency deviations, taken as part of a bigger picture that includes dynamic contrasts, frequency extension, continuousness, et al., have never bothered me as much as they do him.

From the start, it wasn't a question of whether the M-75s were neutral – they are startlingly so. What we had to determine was just *how* neutral.

III

At the outset of testing, the system consisted of the Audio Research Reference Two line stage, an early version of the Plinius SA-250 Mk IV amplifier, and the Burmester CD player and its digital decoder.

After we had recovered from the first rush of excitement (that is, hearing the system's strengths), we began to hear little "peculiarities" and worse, began to find the sound a bit monotonous in its bland sameness. To add to it, I had received (at my own asking) a long detailed letter from a reader of startling perceptivity who had given up on the speakers because, he thought, after all was said and done, they just didn't sound like live music.

I concluded that I was hearing inherent colorations in the planar/magnetics, colorations not uncommonly found in quasi-ribbon designs like this: a fine-grained sandy texture in the upper midrange; a resonant, broadband frequency emphasis there that sounded somewhat glazed in texture, with a midbass I decided was not as complementary as I had at first thought, one that sounded slightly "fat" in the way that so many woofer designs of years past had (particularly notable in early Infinity "big" speakers).

At this time, one of our reviewers (Mike Silverton), had begun hounding me to see what I thought of his latest "protégé," the Quantum Symphony Pro, a kind of metaphysical and upscale system "conditioner" whose effects on his Wilson Watt/Puppy Sixes (with Levinson electronics) was subtle and, as he heard it, a worthy enhancement of the musical experience. We had the unit in house, so I decided to take a listen, little realizing that the Quantum was already in the system and that the adventure would be in taking it out.

In the next listening session, I played a few bars of the new Classic Records issues of the Saint-Saëns "Organ" Symphony (the justly famous Munch/BSO

* Such is an example of one of those byways, about which you may wish to speculate. Is there perhaps some merit to the idea of not matching woofers and the upper range in a hybrid system, but rather aiming for a kind of complementary set of colorations that lock together so well that they synergistically make the more convincing whole?

Inside the Brain

Tom Bohlender of Wisdom Audio borders on vehemence about the "Active Brain," the crossover unit that is the heart of all three speakers in his line-up: The (mandatory) bi-amped systems cannot be correctly run without it.

The Brain is an almost infinitely adjustable *active* device. He says that only an active unit is capable of making the speakers "right" in terms of spectral balance and the ability to easily absorb large power inputs. He believes a passive crossover network would entail component saturation and distortion, resulting in compromised performance.

"The Adrenaline Active Brain," says his literature, "is a fourth-order constant-voltage crossover that provides both low-pass and high-pass outputs. The crossover network is implemented as a fourth-order state-variable filter. The slope of each output is 24 db/octave and, because of the fourth-order design, the high-pass and low-pass outputs are always in phase with each other . . . All . . .crossover work is done at the low end *(sic)* preamp level and then distributed to the designated amplifier, which allows for better amp load preference."

On the surface, the Brain is similar to the device used in the Nearfield PipeDreams speaker system, but the M-75 Adrenaline unit is more complex and adjustable, able to fine-tune the frequency response of the system to individual room acoustics and the sonic preferences of the owner.

Inside the chassis, one finds bank after bank of dipswitches used to effect the changes needed for the set up of the Adrenaline M-75s. These control the integrated circuits (which are basically just resistor-capacitor arrays) that make up most of the active part of the Brain. Bohlender says that, for the planar portion, there are three banks of adjustment per channel, with 12 switches per bank. For the bass region, there are six banks per channel, each with 12 switches. For fine-tuning of the crossover region, there are another two banks of 12 per channel.

Bohlender gave me a simplified explanation of how this tuning circuit works: Each dipswitch turns a resistor in the ICs on or off. Most of the time, the majority of the switches are off. When one is activated, it causes a resistor on the shunt side of the circuit to "pull" on a capacitor via a predetermined voltage drop to effectively cause the cap to change value, thus altering the frequency response in the discrete band of that switch's domain. The signal, meanwhile, does not have to travel through any extra parts to "feel" this tuning; the altering of the cap's value by shunting it to a resistor effects the slight equalization needed.

In toto, there are almost 10,000 possible settings, but Bohlender says he rarely uses more than 200-300. Still, this is more than a handful for most of us, and is why Bohlender sets up every system he sells. I watched him do this at HP's with a microphone and a pink-noise generator-equipped real-time analyzer for almost eight hours. He had to repeatedly refer to a thick sheaf of papers to make sure that he was hitting the right switches for the changes he wished to effect.

recording), then asked Markwell to take the Quantum out. And put it back in. And take it out. Not that the repetition was necessary; without the Quantum, the most flagrant colorations simply disappeared. What I had thought to be planar/magnetic colorations, the pseudo-ribbon "sound," was mostly gone, and the midbass was appreciably tightened.

I am not talking subtleties here. The differences were plainly, dramatically evident. I had been expecting "subtlety." Zip that.

I still thought the reissue left something to be desired, for, among other things, the highs weren't quite as I remembered, being a bit hot and solid-stately on the strings and high percussion, with the tight cymbal crashes, in particular, spraying instead of sounding almost "cupped," with little or no decay tail. The player can make them "spray" by hitting them off each other, or by hitting them softly and head on, he can give them a fireworks-like cupping sound. (Imagine, if you will, clapping your hands when they are cupped, as opposed to smacking them past each other, palms flat.) As I had before I was laying the blame on the speaker. It was clear there was a narrow spike of some kind involved and I thought it was occurring at the point where the high frequencies (not around 5 kHz as I had surmised, but close to 7 kHz) came in.* By chance, we had just become the temporary heirs of a $2,500 all-tube line stage from Deutschland, the Audiovalve Eklipse, which, for the cat's curiosity's sake, we decided to substitute for the Audio Research.

Pause for reflection: We in the business of writing reviews often find ourselves hung out to dry by the very phrases and clichés we use almost without thinking. You know the sort I'm talking about: "I never knew it could be like this" (meaning: "I never knew the record could sound like this, all that detail, all those inner voices"), or "I stayed up all night listening to my new Bose speakers," or "it brought me closer to the music itself," or "it was like a window through which I could listen back to the original." That these phrases, the Bose excluded (substitute something more likely), describe real listening experiences isn't what I find annoying. It's the fact that we have all used such clichés to excess, leaving us without an original turn of phrase when the experiences described in such clichés take on a new impact and intensity. To borrow a visual analogy, the difference was like that between standard television and widescreen High Definition Television. That obvious, yes. And not completely flattering to the Audiovalve. The differences were as distinctive and easily distinguishable as the sound of the voices of people close to us. Distinctive, and as if highlighted, as in sky written. In Issue 123, Jonathan Valin (p. 83) had, after some listening, nailed the sound the Wisdoms revealed instantly. He wrote: "With the exception of a bit of reticence in the very top treble

*There are six aluminum wires running much of the length of the panels, two of them dedicated, via a shunt, to the top two octaves.

and just a slight bit of added energy (typical for ARC) in the upper midband...this is the most dynamically neutral preamp ARC has made in many a moon" and "only in the very deep bass...does the Ref 2 sound a bit out of whack, a bit overgenerous and undefined" which he describes as a "slightly biggish deep bass." (Not that I remembered his exact words; truth to tell, I had forgotten them until we compared notes.)

When I made the switch with the Audiovalve, I heard *instantly* what JV had been talking about. Those cymbals (near the beginning of Side Two of the Munch/BSO disc) weren't tightly "cupped" but sprayed, evidence of that narrow spike, one that added glamour to the sound and a bit of extra dynamic "snap," but also obscured the slight roll-off in the top-most highs he describes. Ditto for the bottom bass (say below 50 Hz to about 30), which is bigger than life, and acts as a disguise for a loss of energy in the bottom octave, also making the 30 to 50 Hz range sound less than finely articulated.

By contrast, the Audiovalve was flat down into the very bottom octave, with considerable definition and articulation (listen to the massed strings at the beginning of Mehta's traversal of Holst's "Saturn" from *The Planets*, Decca SXL 6529) and it got the fast transient cymbal attacks just right on the Saint-Saëns, allowing its top end, which I found just slightly dark and closed in, to be heard. The Eklipse maintained tight control over the decay tail of those transients. Alas, the Audiovalve was audibly shy of the kind of dynamic blossoming and impact of the ARC, sounding restrained in a way that made you want to turn the thing up to get more "impact."

One more small substitution that afternoon began to convince me that the M-75s were so decidedly neutral that they allowed each preceding part of the system to speak at full voice. The Eklipse came with brass feet padded on the bottom with soft felt. We put the Nordost Pulsar Point isolation devices (the titanium version) under the chassis and, behold, the dynamic footprint of the tubed line stage sharply improved.

And if that comparison was a shock, the later insertion of the Plinius M-16 line stage provided a bigger one: We went from the dark to light and neutral, from the dynamically somewhat compressed to dynamics with the swagger and vigorousness of the real thing. The Plinius had a low frequency aliveness and "authority" alien to the Audiovalve and the Ref Two. The M-16, like all Plinius products we had previously auditioned, wasn't entirely "cooked" when we substituted it into the system, so a top-octave softness and fine grain were there. And heard, need I add, with perfect clarity and zero ambiguity. (Such, I have both been told by those veterans of the Plinius warm-up wars and learned for myself with other Plinius components, would disappear in due course.) Even the difference between Nordost aluminum Pulsars and their titanium ones took me by surprise, and hardly had I recovered from that than Charles Hansen of Ayre Acoustics showed up with small isolation blocks made of wood, which sounded yet again different and distinctively so through the Wisdom system.

Clearly this is not a system that can be set up by an average owner. Bohlender has begun to train dealers in this procedure, but for the moment he is the Lone Ranger for this critical portion of the installation.

According to the literature, the set-up and adjustment of the Brain involves several steps. First, both channels' controls must be set to their initial starting points. There are four adjustments for each channel: The damping control raises and lowers the volume of the Planar driver and the LFR (Low Frequency Regenerator) in the vicinity of the crossover point, normally around 125-250 Hz (this effectively adds or subtracts vocal chestiness and perceived "roundness" of instrumental sounds), and is set to 0 dB; the Qb control knob, which affects how tight or loose and how deep and visceral the bass response from the LFRs will be and allows a bit of adjustment to rooms and conditions, is initially set to a value of .55; the Planar and LFR knobs control the amount of gain/output levels of the planar magnetic driver and the low-frequency units, respectively, and are set to "Zero" to start. At their 0 positions or below, the Planar and LFR controls do not add gain to the system and are totally passive. Bohlender advocates never raising the level of either past 0 unless the amplifiers in use are so mismatched in sensitivity or power rating that adding active gain is necessary to bring the system into proper balance. Op amps in the crossover are used to add this gain if needed, but the cleanest signal path is maintained if they are not invoked.

Next, Bohlender begins to examine the in-room response at the listening position. As he looks at the pink noise trace on the RTA, he uses the adjustable settings to achieve his desired in-room response. Generally he likes to set the system up so that the response at the listening position is slightly rising from 30 to 15 Hz (for best low-end impact), then as flat as possible from 30 Hz out to about 5 kHz. At this point, he likes to shelve down the response 1-2 dB and maintain flat response out to 20 kHz. Here the banks of dip switches come into play, and are activated as needed to smooth the response of the system. Bohlender also includes a 3-position toggle switch on the rear of each tower that may be used, once system setup has been finalized, to alter the output of the speakers between 10 kHz and 20 kHz; the center position is deemed to be "normal" with neither boost nor cut; the "up" position adds a 2 dB boost, and the "down" position makes a 2 dB cut. This allows some mild tailoring of the highs without futzing around inside the Brain.

When the results are properly achieved, one can then substitute amplifiers for either the low- or high-frequency sections with only minor alterations to the Brain's level controls, which we did throughout the review period (actually we used the Krell FPB 600 STc amp for the bass throughout the testing and tried a number of other amps, both tubed and solid-state, for the planar magnetic panels).

Bohlender says that the M-75 system exhibits a particularly benign, purely resistive load of about 4.8 ohms to the amp driving the planar portion and either 3 or 12 ohms to that driving the bass, depending on

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It took us awhile to get our collective feet on the ground where the amplification was concerned. And we were tempted to tear down the road toward a more critical and general assessment of the interface problems that characterize the mating of amplifiers and speaker systems – but that was, as a prof used to say to me in college, "Not within the scope of this course, Mr. Pearson." Um-huh.

During the set-up procedure, Scot Markwell, who had intended to use the high-powered Atma-Sphere MA 2 Mk II O(utput) T(ransformer) L(ess) amps, found an incompatibility that had us looking for possible reactance problems with the towers. After some little research, we found that the impedance of our particular pair of towers ran at 4.8 ohms, with a .5 to .8-ohm dip at the 7-kHz transition to the top octaves. (For the resolution of this, see Markwell's sidebar to this essay.)

I am leaving out, as I said I would at the outset, many of the interim steps as we tried one component after another to see if we could determine the degree of neutrality of the system. And we worked with the six high-powered amplifiers we had on hand.

If you didn't push it, the Innersound ESL amp, designed to work with electrostatic speakers, sounded unusually pure and sweet (thus, quite, quite music-like) and had it had a power supply large enough to accommodate the intense demands we made upon its output, it might well have ranked at or close to the top of the list. But push it we did, and toward or into clipping, it fell apart, seemingly transposing the entire weight of the frequency range upward and into hard clipping (like jangling, ice-coated piano wires). Hansen's Ayre Electronics V-1x amplifier drove the speaker beautifully, but sounded, to these ears, a bit opaque in the upper middle frequencies. Listening with us, Hansen heard a grain structure in the system that we were hard-pressed to detect, until I realized the contact points through the entire assemblage of components hadn't been cleaned. As soon as this was done (after Hansen went back to Colorado), that "grain" was entirely gone. Zero problems with another Audiovalve, the Baldur 140 wpc, class-A monoblock tube amps, save for the need for slightly more (3 dB?) output to accommodate the murderous HP power-music tests. Two amps performed flawlessly on the system: the Plinius SA-250 IV (which we did not test at length, preferring to await the arrival of a current production model) and the new Edge NL-10 amplifier, which sounded like, but better than, the best Goldmund electronics I've heard (none, I must add, of recent vintage) and also like the Spectral M-360, which I wish I had been able to keep on hand as a reference, so pure was its sound.

One of the jerkazoid things I did during the testing was to abandon my reference (full-featured) preamplifier, the Burmester 808 Mk V, which, inserted into the system during the final days of testing, popped the competition in virtually every respect. I came away with new respect for its performance and it allowed me to hear into the Edge in a

way that was revelatory (but don't think I'm giving away all my findings just yet). Along the way, we increasingly listened to LPs on the Clearaudio Master Reference turntable with the Lyra Helikon MC cartridge and ran through a number of phono stages, starting with the Aesthetix Io, which has served as a reference for some time, moving to a British-made solid-state unit, The Groove (at $2,400 a steal, but one that could be bettered with a 47 k/ohm load for moving-coil cartridges, instead of the 1 k/ohm load supplied with the unit). You moving-coil folks will know what loading down a great cartridge will do – and these listening tests proved the Helikon is more than a match for its younger sister, the limited-edition Evolve 99 reviewed in these pages some time back – and that is shear off the high-end air and bloom, which can leave the Wisdoms sounding bland and boring. Finally, we moved back to the Io, and then, just for kicks, the moving-coil stage in the Burmester. Another revelation. By contrast, the Io introduced what sounded like a mist into all the spaces of the soundstage – which made something approaching a muddle of the quartet and choral group on the Pergolesi *Magnificat* [Argo ZRG 505], a recording that, reproduced well, is one of the most thrilling to hear (but difficult to play back cleanly with correct timbral differentiations of each section of the choir). With the Burmester back in the system, the vocal quartet stood out against the choir, as it hadn't with the Io, and the boy sopranos acquired that unique timbre that can give you the shivers when they are singing way up high and above a *mezzoforte*.

The Burmester/Edge combination, on this speaker, brought the system to life. Some component combinations, played back through the M-75, made it sound not only lifeless, but far removed from sonic reality, as a run-through of Brad Miller's thunder and lightning storm [on *The Power and the Majesty*, Mobile Fidelity MFSL 004] had depressingly demonstrated.

I decided that the system was a wonderful reviewer's tool, but it didn't make me want to listen to music. And on that note, this review, in its first draft, would have originally ended, with me waffling because I knew I should have more than just respect for it if it were the reliable narrator I had found it to be.

IV

During these extended listening sessions, I had, at one point, substituted the Danish Gamut amplifier (as close to a single-ended solid-state device as you can get, with its single MosFET output per channel). Before the Wisdom system had arrived, I had done enough listening to this amplifier to recognize it as one of the great ones, with an unheard-of fidelity to the contours of a music event. To me, it took solid-state design to a new level of achievement. But when I first inserted it into the system, I didn't take care to adjust the output of the tweeters to match the sensitivity of the amp and whether the woofers are wired in parallel or series. This implies that the system should be adaptable to a fairly wide range of amplifiers, depending on one's sonic preferences, and indeed this seems to be so.

The one exception we observed in Sea Cliff is that if we try to use the tubed Atma-Sphere MA 2 Mk II OTLs, the treble energy above about 7 kHz is shelved down several dB relative to the rest of the spectrum.[1] To use the Atma-Spheres, the Brain would have to be re-set in a somewhat different pattern than for most solid-state and transformer-coupled tube amps. If dialed-in for the Atma-Spheres (and probably other OTLs as well), we could not use non-OTL amps without resetting the Brain's dipswitches (a major undertaking), but at least the flexibility is there.

SCOT MARKWELL

1 There is a slight wrinkle in the main driver's portion of the impedance "curve," in that each set of planar magnetic drivers that Bohlender assembles into a system are individually adjusted to achieve the proper balance between the main portion of the drive element (which uses four conductive aluminum traces), and the high frequency portion at the center of each driver (which uses 2 traces; Bohlender refers to this area as the "Smart" portion of the driver, meaning that he manages to make it behave as if it were a dedicated, separate element, when it is, in fact, physically part of the same driver). At 7000 Hz, where the "Smart" portion takes over, the impedance of the driver can (depending on the individual drivers' manufacturing tolerances) drop just a little (.5-.8 ohms between 7 kHz and 8 kHz), thus causing an OTL design such as the Atma-Sphere to have a slight power response droop, causing the shelving down of apparent response referred to above.

thus had a mismatch that sounded unpleasant enough to cause us to dwell on the amp/speaker mismatch problem, which, thanks to episodes like this (during the early sessions), we thought more important than it later turned out to be.

I am not suggesting that finding an amplifier that allows the speaker to show its stuff isn't important. It is critical. The Wisdom speakers, in most showrooms and demo set-ups, are going to sound disappointing, possibly even atrocious, with the wrong gear further up the audio chain. And the speakers will be blamed.

At the end of the tests, we gave the Gamut another whirl, this time, taking care to match the planar units' output to the amps' output. I dug deep into my record collection (the last several weeks of listening were done exclusively with LPs) to find old favorites, long unplayed, including that magnificent Argo recording of Pergolesi's *Magnificat* (the perfect test of how the electronics will decode both solo and massed voices, from baritones up to boy sopranos) and the wondrous *Three Worlds of Gulliver* from *The Fantasy Film World of Bernard Herrmann* [Decca PFS 4309]. (The Burmester 808 was on the front end, being fed by the Clearaudio Reference arm/table, set up with the Helikon cartridge.)

And the speaker not only came exploding (okay, overstatement, but that was the subjective effect) to life, but the veil that had seemed to be there during the early weeks of the testing was nowhere in evidence, and the entire instrumental and vocal ensembles had that quality of "thereness" rare in any audio experience. The Gamut actually reminded Markwell of the best in triode amplification, while to me it did all the things that tubes do, without any evident tube-like footprint, and had the clarity and transparency of the best solid-state. Indeed, this was the first time the system exhibited real transparency, knocking me off the fence and making me want to spend time just listening to music for the fun of it.

This said, I am still troubled by the complexity of the "Brain" and by its reliance on devices that are thought to be, by general consensus, inherently less than state-of-the-art. Which occasions the thought that the Wisdom Audio system might be significantly improved upon. And in its "Adrenaline Rush" model, the "Brain" is considerably more complex and sophisticated in its design.

We are not able, at this point, to speculate about the true potential of this system, or the sound of its bigger and much more expensive brother. On the face of it, there would seem to be room for growth. But, one may ask, exactly how much of its present "character" is the fault of the speaker itself and how much the fault of the gear in front of it? The Burmester/Gamut combination shows the speaker at its very best, but how many such combinations are we – or more specifically, you – going to find that will bring out that best?

The M-75 has to be turned up (unlike some of the electrostatics we've tested, notably the Beveridge of yore and the modified Quad ESL-63s) to create its

full effect. Its resolution does not, like so many of the early Magneplanar units, extend deeply into the *pianissimos* of the sound, though with the Gamut (particularly on the Herrmann and on the RCA/BMG "hp" CD of Mahler's *Third* with Leinsdorf and the BSO), it goes further into the *pianissimos* than I had thought possible. If I had to call a shot on an overall coloration, particularly of the planar unit, I'd say it is slightly to the tan side of neutral and of this I'm fairly certain. There is a kind of very low-level texture hard to hear and harder yet to describe that may well originate in the Brain and may slightly "veil" the lowest level information, unless you crank it.

I believe the Wisdom M-75 to be perhaps, metaphorically speaking, an order of magnitude lower in overall coloration than virtually any other speaker. Simultaneously, I believe, on the basis of purely observational listening, that it also is, in part, an unreliable narrator in somewhat compressing low-level dynamics and in its hard-to-describe "character." (I have no idea how one would "measure" such degrees of coloration, hence, the word *metaphorically.)*

Given the "right" amplifier, this can be a dream speaker, as our late listening finally demonstrated. And the price is right. Up until the tail-end of listening, I thought the choice here for those interested in the M-75 would be between a colorful simulation of the real thing from a less truthful speaker or a more neutral, if somewhat unlifelike, approach to the absolute. But in fact, if you are willing to bear with it and search out the components that give you what you conceive as the closest replica of what we call the absolute, then this is one of the few systems just may, like Scheherazade, thrill you for a thousand and one nights.

MANUFACTURER INFORMATION

Wisdom Audio

3140 Research Way, Suite 72, Carson City, Nevada 89706

Phone: (775) 887-8850; fax: (775) 887-8820

tom@wisdomaudio.com

www.wisdomaudio.com

Serial Numbers: M75-2006/D12-2006

Source: Manufacturer loan

Price: $38,000/set in lacquer (as tested); $42,000/set in veneer

SOUNDS ABSOLUTE

Christy Baron: *Steppin'*. Christy Baron, vocals; Didier Rachou, arrangements. Didier Rachou and David Chesky, producers; Barry Wolifson, engineer. Chesky JD201

Clark Terry: One on One. Clark Terry, trumpet; various soloists. David Chesky, producer; Barry Wolifson, engineer. Chesky JD198

"To me, standards aren't standards because they're from a certain era. They're standards because they're songs that people enjoy on a regular basis. They're the popular songs of their day." Thus Christy Baron on the concept behind *Steppin'*, her second album for Chesky and one that's been spending an inordinate amount of time in my CD player of late. I use the word "concept" deliberately, because Baron honors the Sinatra tradition of relating the individual numbers thematically and/or stylistically, finding a way to make songs such as "Mercy Street" (for me, the album's hypnotic highpoint), "Tomorrow Never Knows," "Thieves in the Temple," "This Must Be Love," and "Delays on the Downtown Six," cohabit so harmoniously you'd never guess they span almost four decades. (Only the otherwise always welcome "Shadow of Your Smile," done quite nicely, seems out of place here.) The arrangements are all what, for want of a better word, I'll call "jazz"; but with so many crosscurrents and influences, including pop, R&B, electronics, fusion, even Tuvan throat-singing and traces of Indian music, the results are pretty much unclassifiable. Which suggests pastiche, but Baron and her arranger Didier Rachou somehow manage to bind it all together with an integrity all its own, and a sound that evokes twilit cityscapes and night scenes of contemporary urban life in shades of blue and magenta with neon flashes of pink and yellow. Baron's exceptionally pretty, reed-like voice finds a perfect complement in Rachou's instrumentation, which is intoxicating in its combination of timbres and colors (including a rainstick and who knows what other percussion); and the reproduction is typical of Chesky's "High Resolution Technology" at its best – which is to say, about as good as it gets.

The sonics on *Clark Terry: One on One* may be even better in tactile vividness, transparency, and holographic immediacy; and you could calibrate your system with this one because the instruments are acoustic. I began with the sound for convenience of transition, but the music deserves the primary attention. Terry performs scintillating duets with 14 distinguished jazz pianists, each duet a tribute to a jazz hero of the soloist involved. These include Monty Alexander, Tommy Flanagan, Eric Reed, Marian McPartland, Sir Rolland Hanna, and Eric Lewis, while tributees range from Blake and Tatum to Ellington and Monk.

Definitely a pair to draw to, these.

PAUL SEYDOR

Ravel: *Piano Concerto in G.* Rachmaninoff: *Piano Concerto No. 4 in G Minor*. Arturo Benedetti Michelangeli, piano. Philharmonia Orchestra, Ettore Gracis, conductor. Peter Andy, producer; Christopher Parker, engineer. EMI 67258

This is one of the most remarkable recordings ever made. Since its first release in 1958, as one of the first Angel stereo recordings in this country, it has never been out of the EMI catalog. It has been shifted to various budget labels but now really gets its due in the Great Recordings of the Century series.

Much has been written of pianist Michelangeli's odd life and his reluctance to record owing to his perfectionist nature. The Ravel is exacting, but luminous as well. There is not a note out of place in the opening movement, yet the mood is saucy and sultry, insinuating jazz without actually ever breaking into it. The slow movement is one of the most beautiful instrumental arias ever created, and Michelangeli suspends the melody over a gently undulating left-hand figure, then accompanies the winds with shimmering, complimentary figures. The last movement is a dazzling, virtuoso romp for piano and orchestra that finds soloist and conductor in unusually tight rapport.

The Rachmaninoff is often considered the least of that composer's four works in the concerto form, but Michelangeli and Gracis make it sound like the best. There are no apologies for the nervous figure that starts the opening movement or the arch romanticism of the piece, as each dramatic fragment of voluptuous melody is treated as if it were the only one. The finale blazes with fire and controlled abandon.

The recording, one of the first Angel early stereo, releases here, did not sound good. Later pressings sounded better, indicating that the mastertape was good. The new ART processing used on this CD reveals sound that is highly detailed, yet rich and full. The stage depth is good, the stereo separation excellent, the balance of piano to orchestra nearly perfect. There are so many incredible audio moments that they would take too much space, but there is a place going into the cadenza in the first movement of the Ravel where the harp, which is placed back in the orchestra, accompanies the foreground piano with rippling figures. Though the instruments are heard with distance between them, each has a presence and roundness that is completely natural. What an engineering triumph! If this recording is not in your collection, it ought to be.

RAD BENNETT

Rome's Golden Poets. The Saint Louis Chamber Chorus; Philip Barnes, conductor. Barry Hufker, engineer; Philip Barnes, Martha Shaffer, producers. SLCC05

Latin, it has been said, is a dead language. An ability to read it or speak it won't help you ask directions or order dinner – not in Rome, Italy or Rome, New York. But the language is very much alive, of course, even following its curtailment in Catholic Church services a generation ago. It lives on as the basis of the Romance languages (and much of English) and survives in the poetry and prose that are part of the bedrock of Western literature. It should come as no surprise that composers have long been inspired by this material. But I've not before encountered a program as brilliantly conceived and executed as *Rome's Golden Poets.*

Philip Barnes is perhaps uniquely qualified to lead this collection of *a cappella* settings of Latin verse. Born in Manchester, Barnes was trained in the English cathedral choral tradition, performing and recording with such ensembles as the Consort of St. Martins-in-the-Fields and John Rutter's Cambridge Singers. He is also a Classics scholar and left Great Britain in the late 1980s to take a teaching position in the American Midwest. For more than a decade, Barnes has been Artistic Director of the Saint Louis Chamber Chorus, a semi-professional group active since 1956. The SLCC performs six subscription concerts

annually; *Rome's Golden Poets* reproduces the content of a program from the 1998-1999 season.

Barnes presents two dozen choral settings of Latin texts by Catullus, Virgil, and Horace, spanning more than 500 years, though most of the music dates from the Sixteenth and Twentieth Centuries. (The odd-man-out here is the one Romantic composer, Peter Cornelius, who was a buddy of Richard Wagner.) Wonderfully, the program jumps from one period to another, as the SLCC sings music by Jacob Handl (1550-1591) then by Randall Thompson (1899-1984), or moves from a piece by the visionary Renaissance composer Josquin Des Prez to one from a living Brazilian, José Antônio de Almeida Prado. Such transitions seem especially miraculous – and not in the least jarring – as the tone, mood, and vocal texture of the modern pieces are often strikingly similar to those of the earlier ones. At the outset of Gian-Francesco Malipiero's exquisite *Passer Mortuus Est,* there's no obvious clue to what era we're in as the work opens with a single line in the tenor voice – it's only when a second part joins in that more recent intervalic relationships declare themselves. In one instance, we hear settings of the same poetry by four composers, an excerpt from Virgil's *Æneid* – Dido's oration before she kills herself. Not everything is serious business: The CD closes with a version of "Old MacDonald Had a Farm." In Latin, of course. Texts are provided with English translations.

The Saint Louis Chamber Chorus has 45 members, but they sing with the agility and refinement of a much smaller group, especially in subtle modulations of dynamics. Phrases are artfully shaped and diminuendos *en masse* can be breathtaking. Articulation is precise and intonation excellent. This is choral singing of the highest order.

It's an audiophile cliché to exult that one can pick out individual voices in a choir. Well, this is not the expe-

rience I hope to have at a real performance – if I do, I'm sitting too close, or someone's singing too loudly. In life or on a fine recording, one gets a *sense* of individual voices comprising a group, blending coherently. That's just what this disc delivers. *Rome's Golden Poets* was recorded in the sanctuary of the Third Baptist Church of St. Louis by Barry Hufker, who has his own small company. Hufker used two spaced omnis – a pair of B & K 4006 solid-state condenser microphones. The A/D converter was a Symetrix 620 (a 20-bit unit). The performances were encoded on a Macintosh Centris 610 computer with a 4-gigabit hard drive, and stored in 24-bit Sound Designer (Digidesign) data files. Hufker told me he prefers this format "because of the greater error correction capability computer systems have over tape-based digital recorders." The sonic results are impressive. The listener can easily follow individual lines in this often-polyphonic music. Dynamically, the recording is just right: The softest singing is quite intelligible and loud sections don't become hooty, shouty, or in any way unpleasant. The sound has both immediacy and great ease. Sibilants don't annoy.*

This CD won't be in retail stores outside the St. Louis area, but can be obtained from the SLCC (P.O. Box 11558 Clayton, Missouri 63105. Phone: (636) 458-4343 or go to the website: www.iwc.com/slcc).

ANDREW QUINT

** HP, on his system, was not impressed with the sonics of this recording.*

Mahler: *Symphony No. 2 in C Minor "Resurrection."* Elisabeth Schwarzkopf, soprano; Hilde Rössel-Majdan, mezzo-soprano. Philharmonia Chorus, Wilhelm Pitz, Chorus Master. Philharmonia Orchestra, Otto Klemperer, conductor. Walter Legge, Walter Jellinek, Suvi Raj Grubb, producers; Douglas Larter, Robert Gooch, Francis Dillnutt, engineers. EMI 67255

There are sections in the Mehta Vienna Philharmonic and Walter New York Philharmonic recordings of this work that I would not want to be without, but were I sentenced to a desert island and could take one recording of the Mahler 2nd, this would be the one. Seldom has a recording had so much going for it. There is Klemperer, of course, who leads an exacting, propulsive, yet exceptionally lyrical reading that avoids cutesy, folk effects and conveys a profound, spiritual sense of mystery and wonder. The chorus was the one of the greatest in the world at that time. Its singing of the unaccompanied *"Auferstehʼn, ja auferstehʼn wirst du"* in the last movement is one of the most magical moments in the history of recording. This section is capped by Schwarzkopf's floating high soprano, incredibly beautiful, as is her singing throughout. The mezzo-soprano solos are almost equally well sung, and the Philharmonia Orchestra plays like the world-class ensemble it was, its players, individually and collectively, turning in one astonishing moment after another.

The American LPs sounded awful. I had a four-track reel-to-reel tape, which more accurately represented the glories of the mastertape. But nothing I have heard prepared me for the wonder of this new ART CD! This performance now sounds like one of the most wonderful recordings ever made of anything, anywhere. It has detail in abundance and every instrument, near or far, has correct presence. The stage depth is so realistic, you can close your eyes and find yourself in its venue, Kingsway Hall. When the trumpet joins in counterpoint to the soprano solo in the last movement, Schwarzkopf is right in front of the conductor, the trumpet back stage right, and the violins enter left ever so slightly in front of the singer. You can *feel* the space between these performers, yet you know it was not put there by a mixer – it is the living space there at the session! The offstage effects are magical, and the full chorus and orchestra in the finale make a blend that is rich, full, and clear. This is not only a great recording of this masterpiece, it is one of the best recordings ever made.

RAD BENNETT

Louis Armstrong: *Satchmo Plays King Oliver*. Armstrong, trumpet, vocal; Peanuts Hucko, clarinet; Trummy Young, trombone; Billy Kyle, piano; Mort Herbert, bass; Danny Barcelona, drums. (No production credits.) Audio Fidelity/Classic Records (LP) ST-91058

Here's the sort of product that should earn Classic Records a medal. *Satchmo Plays King Oliver* was recorded in the fall of 1959 – they heyday of early stereo – and, had it come out on Columbia, it would be an enduring favorite in the Armstrong catalog. Had it been released on RCA or Mercury, it would be roundly hailed as one of the best-sounding jazz albums of its time. Instead, it was made by Audio Fidelity, a small, gimmick-laden label (one of its most notorious jazz LPs featured a Benny Golson band on the left channel and a Wayne Shorter group on the right channel – two, *two!* LPs in one); it's been out of print for decades and never appeared on CD. Now Classic, the LA-based audiophile label, has reissued it on a 180-gram slab of vinyl – and, as a bonus, has pressed two of its songs on an LP-sized album cut at 45 rpm. Either way, it's a treasure.

Pops appears here with his regular quintet of the day, playing from the songbook of Joe "King" Oliver, the bandleader who gave him his start back in New Orleans in the Twenties. It must have seemed old-hat at the time – Ornette Coleman was laying down *Change of the Century* that same month – but, seen in the vast retrospect of jazz history, it too deserves a cherished place.

The music is infectiously lively, and the sound is just extraordinary. In its time, the album was intended as a demonstration of Telefunken's MS microphones. An informative technical essay appears on the back cover; the front cover emblazons the words "A Study in High Fidelity Sound," and so it is. The clarinet and trombone are particularly vivid; the air around and between all the players is palpable; and, at the start of "St. James Infirmary," when the band mournfully sings, "Yeah, yeah, yes-s-s," you can practically see them in the room. (On the 45rpm, the effect makes you jump out of your chair.) This isn't the best late-era Armstrong (for that, see *Plays W.C. Handy* on Columbia, the four Ella Fitzgerald collaborations on Verve, and portions of the Duke Ellington face-off on Roulette),[1] but musically it's a delight and sonically it's a wonder.

FRED KAPLAN

1 Reissued as a 96/24 DAD by Classic and, hot off the presses, as a regular CD (with much previously unissued material) by Blue Note.

Sonny Rollins: *Our Man in Jazz*. Rollins, tenor sax; Don Cherry, cornet; Bob Cranshaw, bass; Billy Higgins, drums. George Avakian & Bob Prince, original producers; Paul Goodman, original engineer. No reissue credits. RCA/Classic Records LSP-2612 (4 single-sided 45rpm LPs)

Many times in these pages, I have touted *Our Man in Jazz* as one of the best live jazz albums ever – and, in its original RCA "shaded-dog" pressing, *the* best-sounding. A 33rpm Classic reissue of a few years back beat the original for bass and dynamics, but fell a bit short on high-frequency air. Now, with this new 45rpm version, Classic wins on all counts. This is the only version of the recording you need ever hear again.

Rollins recorded it live at the Village Gate in 1962. Like many musicians, he was intrigued with Ornette Coleman's "new thing," and hired his cornetist and drummer for the gig. This is adventurous music of the highest order, Rollins and Cherry trading calls and choruses, Higgins goosing the pace with his hi-hat. I still remember listening to the album's 25-minute rendition of "Oleo" for the first time, my jaw agape, unable, unwilling, to get up to answer the phone. Rollins soon backed away from this direction (though he toured with the band in Europe the following year, captured on the bootleg, *Rollins Meets Cherry* [Moon Records], and, in '66, recorded with Coltrane's rhythm section for the even farther-out *East Broadway Run Down*, on Impulse). The sound is as close to you-are-there as they come. If there are still copies in stock (it's a limited edition of 5,000), order it now. 1-800-4-LSC-LPS. (Caution: Ignore RCA's own CD reissue of this album; it's bleached and blurry beyond the point of recognition.)

FRED KAPLAN

FEATURED LABEL
MA Recordings: Human-Created Sounds in Human Space

Neil Gader interviews Todd Garfinkle, founder of this small recording label.

NG: What does "MA" signify?

TG: MA is one of the Japanese pronunciations for the Chinese character that means space or interval. Since living in Japan, I have learned about the various profundities of the concept of space. It would make more sense to someone who has studied Japanese or Chinese, since the character is used with others to create different but somewhat related words. For example, MA is used with the character that alone means "man" or "homo sapiens" to create the two-character concept of "human being. " In Asia, they knew long ago that one has to have space to be human. One should also remember that when two homo sapiens have a relationship, the space between them, either physical or conceptual, takes on real meaning. No space, the relationship doesn't exist.

NG: Tell us a something about your background and what led you to create MA Recordings.

TG: I was born in Los Angeles in January 1956 and lived there until I was 13, at which time I went to live on a kibbutz in Israel, which as you might know is one of the few places where pure Communism was practiced. Actually, I was in a one-year high-school program with supposed accreditation from the state of New York. Who knows, but it worked out.

"In Asia, they knew long ago that one has to have space to be human. When two homo sapiens have a relationship, the space between them, physical or conceptual, takes on real meaning. No space, the relationship doesn't exist."
T. Garfinkle

After that one year in the North, where they are the sometimes recipients of rocket fire, I moved to another kibbutz in the Negev desert, where more than 30 years ago, petty cattle thieves from Gaza stole livestock. I spent five years, altogether, living in a kibbutz environment, where besides going to high school, I worked in the fields, picked fruit and worked in a dairy milking and feeding cows. Many times I had to pull calves out of their mothers who were not able to finish the birth process by themselves.

All during the time I was in kibbutz, I played the piano, wherever I could find one in an unlocked public room. I say this because most private rooms were left unlocked as well. Not any more, I think . . .

Then I spent about a year in Jerusalem, studying piano (I started learning piano when I was about 7). In the summer of 1974, I had a chance to go to Cambodia – and there I first connected with Asia. When I returned to Israel, I began to see Japanese films and became interested in Japanese culture.

At the end of 1975, I came back to the US and went to California State University at Northridge, where I majored in piano and composition. I still maintained my interest in Japan and took courses in the language for two years. Then I moved to Japan.

NG: When did you form the label?

TG: I started MA in the spring of 1988. Before that, I had become involved in organizing a few tours of the musicians that I later recorded on the label: Milcho Leviev (piano), Dave Holland (bass), Sheila Jordan (vocal), and Harvie Swartz (bass). I think growing up during the sleazy Viet Nam years distanced me spiritually from a largely shallow culture, then moving at an early age to the kibbutz in Israel, where you really get a sense of the need to survive, and finally experiencing other cultures to the extent that they didn't feel foreign, in other words, being able to feel part of that culture, listening, not just hearing, the music of the Sixties and early Seventies, modern avant garde, Takemitsu, Steve Reich – and being exposed to other labels, such as ECM – I came to the realization that ethnic music is one of the oldest, purist, yet most personal forms of human expression. These things have brought me spiritually to where I am now with

music. There is so much more to explore, but so little time. And this business is quite hard.

NG: Do you think your recordings possess a signature sound?

TG: I think they do, for the most part because I have been using the same mikes from the beginning. The recorder has changed for the better over the years, as have the cables. Originally, the idea was to record everything in a certain hall, Harmony Hall in Matsumoto and indeed almost half the label was recorded there. Since 1994, I have been leaving Japan, much to my wife's chagrin (Garfinkle's wife, Mariko, is Japanese), to record in churches in Europe mostly and sometimes in New York City.

NG: So how would you describe the quality or character of the sound you achieve?

TG: This is really hard to describe, although I do think that the sound is really open, because of the physical spatial factor. You cannot avoid hearing that space reverberating. I try to get a good balance between all instruments and all registers – a tight low end, mellow middle, and open high end – although I do not always get what I want.

NG: You don't have the advantage/disadvantage of sweetening a recording later on. When you record in a hall for the first time how much of the process is based on experience and do sheer instinct and feel play a large part?

TG: Well, that's not all true. I can do EQ, and sometimes do. I can compress a bit and bring things out that would otherwise be masked completely. But I won't do it unless there is a problem, which does happen, especially if the space is chosen by one of the musicians beforehand and there is no other place to work in. Actually, this happened once and I was able to get a different space with one phone call. Amazing and it all worked out. That was Mauro Refosco's *Seven Waves* [MO43A].

In general, I think a lot beforehand about how I'm going to set the mikes up. Sometimes I have to wait until I get there to see what the space is like. Then, of course, I have to use my experience and common sense, what's left of it. Of course, working in the same space over and over helps as I get to know its characteristics. And the space is often chosen according to the type of music. In Lisbon, I use a large Gothic church for the slow, dreamy things, such *Luz Destino* [M039A] and *Senhora da Lapa* [M046A], and a smaller, Anglican church for the jazz records, such as João Paulo's *O Exílio* [M045A] and *Almas* [M049A].

NG: One of your most recent recordings, *Será una Noche,* was recorded in a monastic church in Argentina. How did that come about?

TG: This is one of my favorites, for sure. Everyone was so musical and hip to the situation and what we were trying to achieve. And we got something I am always amazed at when I hear it. I originally went to Argentina to do a project with Yugoslavian guitarist Miroslav Tadic (most recently, half of the guitar duo on *Krushevo* [M044A]) and Argentinean percussionist Santiago Vazquez. I told Santiago that I wanted to do something with tango, but not just another tango record. I sent him *Luz Destino,* a project done in Portugal, and he really dug it. *Sera* is not really like *Luz Destino,* but taking the music to a very different place is where both of these projects excel. Whereas *Luz Destino* examines traditional *fado* song, arranged in the Baroque style, *Será* mixes tango and Argentinian folklore, as well as percussion instruments from other places. Santiago's *tabla* playing is really great, for example.

Santiago had to do a lot of homework and asking around to find the space, which is about two hours out of Buenos Aires. There is a large dairy product plant in the area, but nothing else except train tracks that go off into the horizon. The church is on the Pampas, those famous flats that stretch for more than 1,000 kilometers.

NG: Are there any recordings in particular that you've tried to emulate?

TG: I don't think there are any particular recordings, but I do appreciate the sound ECM created. Manfred Eicher seems to be interested in presenting the music in a perfect, yet artificial acoustic world. In my case, I work only in the natural world and try to perfect an illusion, if you will,

so that the music does not sound like just another recording in a church or hall, or whatever space. I consider the space an active part of the recording, an active "member" of the group...

NG: You wear two hats – producer and engineer. Is it hard to separate them?

TG: For me producing is really nothing, except that I have to pay for everything. I don't often get involved with many musical decisions because, when I do a project, everyone involved knows what we are after. Of course, sometimes, there are differences, but for the most part, my role as producer is more of a coordinator. I do feel that I have to be sure about how a record starts, because that sets the tone for the whole record. The first track nowadays can either make or break a record sale. The stores all have listening stations and that set-up is very instrumental in selling a new release.

And you audiophile guys – always changing the track after the first 10 seconds of a tune. This drives me nuts, this impatience to get that audiophile hit. And so many people say, "We're only in it for the music!"

The engineering part involves setting up all the equipment, including dealing with technical problems, putting the music together, making sure the sound is right; but you know all of that. In my case, I also take all the equipment to the recording session, except perhaps a mike stand or two, which I usually buy and leave in the country I record in for the next project, or borrow...

NG: What about us audiophile guys – what do you think we listen for?

TG: Of course I am generalizing, but some audiophiles I meet want to hear (not necessarily listen to in a musical context) an extremely loud, low end that will impress themselves, their friends, and may get the women out of the room... My basic problem with the "audiophile syndrome" is that some of "you guys" want to hear sound more than just listen to music. Ultimately, the sound *is* the music, as one single sound can be extremely musical. Sometimes I see "you guys" just hearing – perhaps listening as well, but seeming to be detached from the initial reason for the existence of that sound, which of course is most likely to be a musical idea, which sometimes takes more than five or six seconds to develop. I am thankful for audiophile support. when it exists, but sometimes it would be more encouraging to see increased patience in letting the music develop, naturally...

NG: Do you know when you've got an audiophile hit?

TG: The "hit" for me here refers to that metaphorical shot of audiophile adrenaline "you guys" get when you hear "that impressive sound." As far as the possibility of my recordings being audiophile hits, in the more conventional sense, I assume that if there is some tight, loud, low end, I am on the right track. Of course, the sound has to be natural and fast. Musically however, I sometimes find that the material is too advanced for many audiophile tastes.

NG: When you hear the finished CD, how does it compare to the master?

TG: There is no comparison.

NG: What is specifically lost in the process?

TG: Not lost, but there is a decrease in: depth of field, spatial quality in terms of width; in other words the space gets narrower, smaller...The instruments seem closer...If we are in a high-ceiling environment, for example, the ceiling gets lower...

NG: You record digitally…

TG: Sorry it's not analog! But at least it's at 96 kHz, anyway. I've been recording at 96K since 1992, when everyone was squawking about 20-bit recordings. Sounds great at 96K.

NG: Do you still like analog?

TG: Sure, I like analog, but not the hiss.

NG: What are analog's limitations for you?

TG: The recording equipment is really heavy. The other stuff is the same for me. I carry around monitoring equipment anyway, as well as mikes and cables. And, of course, the dynamic range is very wide with the 96K digital in comparison to analog.

NG: What about the new formats like

DVD-Audio and SACD? How do they perform to your ears and will you be recording with them anytime soon?

TG: I am interested in a higher-bit 96K or 192K playback format more than SACD, because I think that the one-bit SACD doesn't present a tight low end. It is a bit top heavy. As for recording at a higher word length than 16 bits, the hardware is really expensive and for a 96K or 192K playback software format, one must edit on a computer, something I think can be detrimental for the sound. But perhaps I am a bit narrow-minded in this area. I do think though that recording to tape is the most robust format still. So, the next generation of my recording equipment will go from 16/96 DAT to 24/96 (or 192) in some other tape format.

NG: What are the unique challenges facing small labels like MA Recordings?

TG: Survival . . .

Some MA Recordings of Note

Será una Noche. M052A

One of the label's latest efforts deserves special mention for its musical excellence and most natural use of acoustic space. The music is essence of tango infused and gently shaped with jazz and native Argentine folk music. Singer Pedro Aznar adds romantic and soothing vocals. Recorded in a monastery in Argentina with a pair of B&K mikes and a highly modified Pioneer high-sampling DAT, this recording captures just the right balance between acoustic space and distinct images. Beautiful detail and spaciousness abound without sounding coldly artificial. How good does it sound? Well, had it been issued on LP a few years ago, it would have made Golden Disc Lists all over the known audiophile world. — NG

Begoña Olavide: *Salterio.* M025A

This was Olavide's debut recording, performed at La Monasterio de la Santa Espina, Valladolid, Spain. She plays numerous medieval works on seven psalteries, all beautifully handcrafted by her husband, world-renowned luthier, Carlos Paniagua.[1] Also participating are percussionist Pedro Estevan and Juan Carlos de Mulder and Daniel Carranza on vihuela, Baroque guitar, and thiorba. It's medieval music that is exotic yet modern in feel. The sound is translucent. The soundstage and the reverberant envelope about each instrument are fully defined and perfectly in balance with the precision imaging and natural tonality of the delicate harpsichord-like psalteries. This is a state-of-the-art recording of enchanting, mysterious music. — NG

Michel Godard: *"Sous les voûtes, le Serpent. . ."* M048A

Among the most haunting of recordings in the MA catalog are these nine tracks featuring the valvelesss ancestor of the modern tuba, the serpent. A pair of tubular esses melded together, the instrument resembles a writhing boa. The title means either: under the arches, as of a Cathedral, or on the path, or way. In either case, we seemed to be warned that the serpent lurks. It is accompanied by percussionists Mark Nauseef and Pedro Estevan and the evocative vocals of Linda Bsiri, and the original compositions echo Gregorian plainsong, primal landscapes of unending space, and dreamlike meditations. The music is challenging, full of dynamic and percussive surprises, though beautiful in its simplicity. Recorded in the same cathedral as *Salterio,* the disc has similar sonic virtues, albeit with a slightly greater soundstage depth. — NG

Peter Epstein: *Solus*. M047A

Recorded in Italy's San Martino Cathedral, Epstein's solo saxophones, alto and soprano, float and waft on Bach's "Partita No. 2 in D minor," as well as several original compositions. Epstein's gentle, classicist approach to the music allows us to hear nearly all of his shifts. Highs ring like chapel bells – forward-bearing on attacks, but then drifting back into a vast corridor. We hear the cathedral's dimensions, and a pleasant, no-bleed aural aftertaste, even as Epstein's sax breathes new passages. Listen for the rapid key taps and tone blending on Epstein's "PI" – it's like lying in a field of prairie grass, listening to nature's creatures swarming around us. — BG

1 Brilliant musicians all, the Paniagua family playing as the Atrium Musicae de Madrid, include Carlos, Gregorio, Eduardo, and Luis. They have been heard on such Harmonia Mundi titles as *Musique Arabo-Andalouse* [HM 389] and *La Folia de la Spagna* [HM1050], as well as that strange, notorious LP (HP Super Disc Listee): *Musique de la Grèce Antique* [HM-1015].

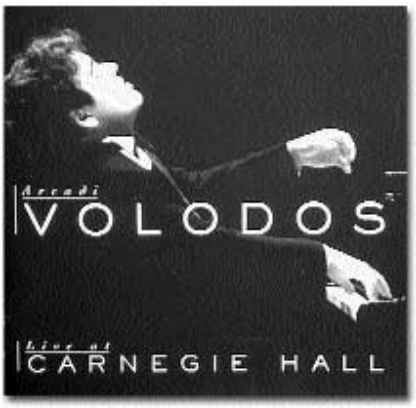
CURMUDGEON'S CORNER

. . . . .

ARTHUR S. PFEFFER

How little there's been to gripe about! For example, some recent CD issues and reissues deflect even a curmudgeon's dudgeon. BMG's "HP" series of "silver age of stereo" reissues carries on with a stunning Orff *Carmina Burana* from Boston [BMG 09026-63590-2, CD]. This is my nominee for conductor Seiji Ozawa's finest recording. My original RCA Red Seal LP [LSC 3161] is a not-bad representation of the complex choral piece with its constantly mutating vocal groupings and kaleidoscopic percussion and instrumental effects. But the new CD makes the old Dynafloppy wafer's compromises and colorations surprisingly obvious. Listen to the CD's ear-boggling clarity, wide stage spread, expressive voices, volcanic bass pulses and rumblings, the joyous eruption of section 10, *Were Diu Werit Alle Min*, and the electrifying percussion jolts that punctuate the roasted swan's lament at 0:30 in Track 12. The bells and cymbals bashing wildly behind baritone Sherrill Milnes in Track 13 should make your scalp tingle as they probably did his (if he was actually there in the hall and not dubbed in later as soprano Judith Blegen was – I was told – in Michael Tilson-Thomas' Cleveland recording on Sony MK 33172, CD). For once, recorded dynamics actually suggest a live performance, and Symphony Hall envelops you in its air and space. The 1969 tape is none the worse for a little multi-miking by producer Peter Dellheim and engineer Bernard Keville. The huge ensemble is arrayed in contrasted planes and images, with solo voices focused in front of the chorus but not too far forward. I haven't yet heard SACD, but if it improves on this level of sonic realism, it has to be remarkable indeed.

Another BMG "HP" issue is a shade less successful: Jean Martinon's Ravel program with the Chicago Symphony [09026-63683-2]. This brings together several sessions of varying quality, and either the original recordings or the transfers are brash. I dislike the raggedly played and shrilly recorded full-orchestra version of the normally ethereal *Introduction and Allegro*. But *Alborada del gracioso* is very fine, with an intimate, open acoustic. So is the 1968 *Rapsodie espagnole*, though



more overt and objective than Reiner's languorous 1956 version with the same orchestra [different hall; BMG 09026-61250-2, CD]. The Martinon recording, nicely detailed with full-bodied images, is also flatter and harder. The constancy of RCA's corporate ears even among different production teams in different decades is evidenced in the wide left-right separation of violins and cellos in both versions. Martinon's 1964 *Daphnis et Chloë Suite No. 2* comes closest to Living Stereo sound character, the best performance and recording on this generous but not consistently pleasing disc.

Two solo recitals by young artists on Sony are well worth attention. The first [Sony SK 68344, CD] presents Austrian mezzo-soprano Angelika Kirschlager in a fascinating program of songs by Korngold, Mahler, and Frau Mahler – Alma, that is. Alma's repression as a budding composer by her insecure husband, depicted by Ken Russell in his eccentric 1974 film, *Mahler*, deprived us of a genuine if minor musical talent. Her hauntingly beautiful songs, in the turn-of-the-century style of Wolf, Zemlinsky, and her husband, are a real discovery. They, and the remainder of the program, are sensitively presented by Kirschlager and pianist Helmut Deutsch in natural and very close recital sound. The second program is *Arkady Volodos, Live at Carnegie Hall*, a 1998 recital by a gifted Russian pianist whose performances alternate volcanic energy with mercurial lightness [Sony SK 60893, CD]. Again, first-rate close-up (and live) piano sound, the CD's dynamic range just managing to encompass the pianist's. The program is idiosyncratic: short pieces by Scriabin and Rachmaninoff, Schumann's rather earnest *Bunte Blätter*, Op. 99, and some fireworks of Liszt, a *Hungarian Rhapsody* and *Variations on Mendelssohn's Wedding March* with further embellishments by Vladimir Horowitz and perhaps Mr. Volodos himself. Not the typical thunderous virtuoso recital and highly stimulating.

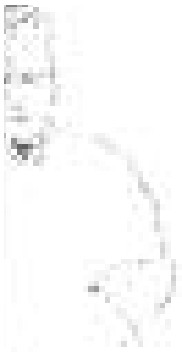
A couple of video-audio tracks for sonic relief. A good-sounding recent classical video is *Italian Festival* [Naxos/DVD International DVDI 0993, DVD]. This uses the same audio track as the similarly entitled Naxos CD [8.550087], which has been around a long time. These two discs allowed me to compare DDD on the CD with the DVD's (compressed? doesn't sound that way) Dolby 2.0 digital transfer downconverted into 48K PCM for my DAC. The DVD also offers DTS and Dolby 5.1. I have no idea whether the surround tracks come from Naxos' original CD audio or were synthesized. The DVD is one of a series of "Musical Journeys," with music drawn from the Naxos CD catalog and scenery from the European landscape. I wondered how the DVD sound would compare to the not-bad 44K CD, where the stage is quite wide, though well set back, in an airy hall, with fairly wide dynamics and a bit of dig-

ital hardness in the violins and woodwinds. The DVD audio was, via DAC, not much different from the CD, though transferred at a substantially lower level. I might have heard a less wide stage and a harder edge to the sound, but barely. On the other hand, listening to the DVD signal converted internally to analog by the Pioneer deck was inexplicably a superior experience. I heard a somewhat better presentation than the CD in hall and stage airiness, audibility of the reverberation tail, firmer imaging with slightly enhanced dimensionality, and more energetic dynamics. Tonal edge was certainly no worse, and the DVD even had possibly a richer harmonic texture. The transfer engineers cut off some audio tracks too soon at the end, disconcertingly chopping away the last second of hall decay. But otherwise, happily for those who enjoy music videos played over High End audio systems, this DVD is most agreeable. Performances by one of those Czechoslovakian radio orchestras with too many letters in their abbreviations are sprightly, the program of short works well chosen and not as hackneyed as that of *Spanish Festival* [DVDI 0995]. The street price of this inexpensive series is around $14, and the 1.33-ratio images are lovely, particularly the striking scenes of a snow-coated Venice in winter.

Forgive my touting a very special release in an obsolescent format. It is MGM's hefty 1996 laserdisc collector's box of *That's Entertainment I-III* [MGM ML105216, 5 LD]. Try to find one before all copies vanish forever. If a DVD ever appears, its compressed sound may not equal the laser's uncompressed. Careful sound restoration was a feature of this set, which includes such goodies as portions of *The Wizard of Oz* and other films with "accidental" stereo soundtracks. To me the most striking musical selection is "Strauss Fantasy" (Side 10, Track 5), an unexpected treat from the Golden Age of Stereo flawlessly preserved in a Technicolor short subject. Johnny Green conducts the gigantic MGM Symphony Orchestra – a genuine one, no Sousaphones! – in a medley of Johann Strauss waltzes and polkas. The first time I played this mesmerizing 1954 track, I was powered right off my seat cushion by the opening surge of glorious string tone. Such depth of midbass energy is unequalled in many audio-only stereo recordings of that or any era, even the Living Stereo RCA's, which it resembles in its fine spatial characteristics. When I listened to my first stereo LP on my new stereo system in 1962, after many mono years, I exclaimed, "I can't hear the cellos!" That whole fundamental region of sound, lower midrange to midbass, so prominent in mono, seemed thinned out, eviscerated, in stereo. I've never changed my mind. ("Strauss Fantasy" also boasts superb visuals, a sadly ignored model of how a classical orchestra can be presented attractively without too many close-ups.) Amazing to think that one of the best early-stereo sound recordings was made (by engineer Wesley Miller) in a movie studio for a short subject!

CLASSICAL

Anton Webern: *Complete Works.* Pierre Boulez, editor. Berlin Philharmonic, Ensemble InterContemporain, BBC Singers, Boulez conducting. Christiane Oelze, soprano. Françoise Pollet, soprano. Mary Ann McCormick, mezzo-soprano. Gerald Finley, bass. Piano: Pierre-Laurent Aimard, Eric Schneider, Gianluca Cascioli, Oleg Maisenberg, Krystian Zimerman. Gidon Kremer, violin. Clemens Hagen, cello. Emerson String Quartet (Eugene Drucker, Philip Seltzer, violins; Lawrence Dutton, viola; David Finckel, cello). Deutsche Grammophon 457 637 (six CDs with 204 page booklet)



Several years ago, I met with a group of corporate folk to discuss the establishment of an Internet record review under their organization's sponsorship. I proposed covering new and modernist art music as the webzine's principal direction. The meeting went well. As we left the conference room, though, one of the party, walking by my side, hissed his opposition to the emphasis I'd suggested with the vehemence of a Cromwellian on the subject of the papacy. His loathing was in remarkably supple form – Bartók, Stravinsky, all of them, vermin! In my presentation I'd mentioned Witold Lutoslawski, whom my interlocutor renamed Luto*slob*ski. Despairing of a commensurately witty riposte, I excused myself.

Had I sounded the fellow's opinion of Anton Webern, he'd likely have gone into a seizure. Webern, even now, can have that effect. (The composer was shot dead in 1945 not far from Salzburg by a nervous GI of the occupation force, though we've no reason to believe the shooting reflected the soldier's aesthetic disdain.) I recall a *Fanfare* colleague referring to Webern as a con man. A con man? European art music's then leading edge propelled by a scammer – what a stimulating thought! The superintending force behind this superb, beautifully designed six-disc set, Pierre Boulez, without the luminous foundation of Webern's music, would have developed as a composer along quite different lines, if at all. (The sturdy slipcase bears a celebratory "Boulez 2000" sticker.) There can be little question that Webern is a giant, more influential, all told, than the other two figures of the School of Second Vienna troika, Arnold Schoenberg and Alban Berg. Relative to Schoenberg's angst-beset Expressionism, Webern's crystalline cool – that is, in those compositions conceived at a distance from his teacher's profound influence – is better suited to have sired a musical style nowadays diminished but far from defunct. This DG set goes great lengths to solidify an opinion of worth, if not for the specialist, at least for the general listener.

It isn't the first Webern compilation under the Boulez mantle. Sony Classical issued a three-disc set on CD in 1991, incorrectly labeled complete (opp. 1-31), the bulk of it recorded in 1969 and first issued on the Columbia label. This significantly larger DG collection, recorded in the Nineties, offers, for example, Webern's version for string orchestra of Five Movements, op.5, along with its counterpart Five Movements for string quartet of 1909. As another example of thoroughness, the DG set includes *Im Sommerwind, Idyll for Large Orchestra* (1904), along with a number of works absent opus numbers, several of which serve to trace Webern's creative journey from tonality through atonality to serialism. While clearly derivative, the early tonal music is competent enough to suggest a brilliant career in that direction, had Webern chosen to remain among the conservatives. It was not to be for this philosophical fellow. Wagner's chromaticism prefigured atonality as an inevitability. Serialism, necessarily atonal, goes the extra step in formalistic manipulations of the 12-tone row – strictures that drove a good many younger composers toward freer means of expression.

To put that another way, nobody has ever surpassed Webern in the sense of poise and perfection serial music is capable of imparting. Alban Berg surely achieved dramatic heights well beyond Webern's scope, e.g., the operatic masterpieces *Wozzeck* and the uncompleted *Lulu*. Webern's nine-and-a-half-minute (!) op.21 Symphony has nothing whatever about it of Mahler, whom Webern admired. Indeed, coexistence seems inconceivable, and yet both men made huge contributions to a contiguous milieu. Here, perhaps, is where high culture's center gave way. Later composers – Boulez springs to mind – have in their own, often marvelous terms, taken Webern's spirit of filigree clarity to other, if not necessarily higher, locales. Like all authentic art, music is a protean force. In so demonstrating the allegation in the loveliest of terms, DG's Webern survey is a thing of inestimable value.

And yet I arrived at my conclusions regarding the DG set's superiority without troubling to listen again to the Sony set, which I'd not played for about a year. When I suggested this review to Jon Valin, he assumed I was discussing a reissue of that set's vinyl original, the Columbia recordings he holds in high regard. In our first exchange of e-mails, Jon hoped that Boulez et al. had not filed off the music's sharp edges (presumably toward greater palatability). Jon also mentioned the Columbia issues' fine sonics as a high-water mark.

Not to worry. The 30-or-so-year-newer DG set is the better recorded, *pace* digiphobes. Both sets present a spaciousness I find inappropriate to small-scale music, the greater part of which this is (a matter of personal pref-

erence, not to be construed as a pan). The remarkably fine Krystian Zimerman's performance of *Variations for Piano*, op.27, along with the other solo piano works on DG's Disc Six, sound as if taped in a large, empty hall. For the op.27, the technical note identifies a church. In comparing the Symphony performances, the Sony plays behind a relative fog. Performancewise, the Symphony's interpretation is as I recall it, and as much can be said of these sets as a whole: The more recent reading largely centers about lucidity. Webern has become more his own man rather than Schoenberg's long-term acolyte. This is not to suggest *sturm und drang*'s wholesale eviction. It's there, where need be. Another comparison demonstrates how extraordinarily fine these DG performances are: *Four Songs for Voice and Orchestra*, op.13, with soprano Françoise Pollet, I judge vastly more apt than its Sony version, with soprano Heather Harper. It's a question again of an Expressionistic tension taking second place to a celestial feather's touch. Soprano Christiane Oelze is no less fine. No one with an interest in modernist music should pass up this set.

MIKE SILVERTON

Creston: *Symphonies 1, 2,* and *3 – "Three Mysteries."* National Symphony Orchestra of Ukraine, Theodore Kuchar, conductor. Alexander Hornostai, producer; Andrij Mokrytsky, engineer. Naxos 8.559034

Hot dog and a round of firecrackers! This smashing CD arrived just in time for the Fourth of July, and it's a real cause for celebration to have such musical fireworks in house. Paul Creston (1906-1985) was much in vogue 40 years ago; his music was played second only to Barber, Gershwin, and Copland. I ran into his works on National Symphony concerts when I moved to Washington, DC in the Sixties. But lately, little has been heard of him. I hope this CD sells *beaucoup* copies and starts a revival.

What's all the excitement about? This is just about the most accessible, tuneful, dramatic, and thoroughly American music around. The *First Symphony* bustles with that curious energy that seems to brand a composition "American." Its movement titles say it all: With Majesty, With Humour, With Serenity, With Gaiety. The beginning of the first is arresting and the last is jolly good, virtuoso fun. The *Second Symphony* is a two-movement masterpiece devoted to song and dance. The song movement, the first, is eloquent and lyrical; the dance movement sparkles with vibrant melodies and snappy, pungent rhythms. The *Third* depicts the life of Christ in music, its movements aptly named The Nativity, The Crucifixion, and The Resurrection. Here Creston expresses his deep faith and his love of Gregorian chant. There's a magic moment in the last movement where a solo trumpet (brilliantly played) expresses hope and adoration, that is, for me, one of the great effects in all music.

Theodore Kuchar, conductor of several American orchestras, is thoroughly grounded in American idioms. His Russian musicians play quite well. The winds are secure, the percussion does everything correctly, and the lower strings are solid. Only the upper violins show insecurity, mostly in the third movement of the *Third Symphony*, and nothing glaring at that. The recorded sound is resonant with an excellent stage depth, the brass and percussion properly sounding at the rear of the orchestra. No matter where an instrument is placed, it has good presence. The highs are nicely transparent and the bottom is solid, with some impressive bass drum. A wonderful CD.

RAD BENNETT

Le Cinema. Chaplin: *Smile.* Rota: Improvisations from *Un Diavolo sentimentale* and *Amanti senza amore.* Dunayevsky and Dreznin: *Fantasy.* Piazzolla: *Tanti Anni Prima.* Takemitsu: *Nostalghia.* Desyatnikov: *Absalom's Death and Tango.* Shostakovich: *Romance.* Milhaud: *Le Boeuf sur le toit.* Kancheli: *Rag-GIDON-time.* Gidon Kremer, violin; Oleg Maisenberg, piano. German Symphony of Berlin, Andrey Borekyo, conductor. Ulrich Ruscher (engineer). Teldec 17222

Le Cinema begins with sentiment: the melting tenderness, the unfathomable longing, the glorious transcen-

dental schmaltz, of Charlie Chaplin's "Smile" (from his film *Modern Times*) – played as you've never heard it before by Gidon Kremer's heartbroken Baltic violin (with Andrey Boreyko's comforting piano by its side).

With shamefaced grimace and lifted eyebrow, I admit I've been enthralled, enraptured – nay, seduced – by this astonishing display of bittersweet poignance, dreamlike fantasy, forlorn mystery, timbral audacity, and thrill-seeking bravura that runs the gamut from the sublime to the sublimely ridiculous, without once resorting to any less-than-inspired fillers or predictable chestnuts. In all honesty I've never heard a violin "recital program" that comes close to *Le Cinema* for range of mood and interpretive chutzpah. Nor, I might add, have I heard a better recorded one. Kremer's violin has enough tactile immediacy (the piano is a little less *there*) to qualify as an audio test-recording.

On this disc, comic relief (salted with irony) is furnished by Leonid Desyatnikov's "Tango" (but it sounds Yiddish!) from *Sunset*, Nino Rota's "improvisations" on themes from a couple of his movie scores, and a screwball, super-slo-mo caprice, written for Kremer by Giya Kancheli, called *Rag-GIDON-time*, that as far as I can tell have nothing to do with the movies – but what the hey.

Darius Milhaud's evergreen *Le Boeuf sur le toit (The Bull on the Roof)*, however, actually does have a film connection: Milhaud wrote it in 1919 for an imaginary movie. This astounding rendition (for violin and piano) ratchets up both the bi-tonal irreverence and inebriated joy of this half-surreal, half-farcical barroom rondo on Brazilian popular tunes, tangos, maxixes, sambas, and fados. Kremer – never much interested in suave decorum or bloodless technical perfection – rolls out everything in the arsenal: raucous double-stopped major-sevenths; spun-glass harmonics; grapeshot spiccatos; spring-loaded pizzicatos; and a bizarre cataract of thirty-second-notes that could be a cadenza on a runaway speedboat.

Kremer's *Boeuf* resonates all the more for having followed Takemitsu's *Nostalghia*, a threnody for solo violin with (gorgeously recorded) string orchestra that the great Japanese composer wrote in memory of Russian expatriate film director Andrey Tarkovsky. This ghostly post-tonal music – a timeless 11 minutes long – is riven with a pain so beautiful, so pure, it seems heavenly. Imagine Berg's *Violin Concerto* sung by the angel herself.

MARK LEHMAN

Carlo Gesualdo: *Tenebrae*. Taverner Consort & Choir, Andrew Parrott, conductor. Sony Classical CD SK 62977

Don Carlo Gesualdo, Duke of Venosa (c. 1560 – 1613) was a Renaissance holdover whose passionate composing style thumbed its nose at the conventions of the period, as exemplified by the cool, stately style of Palestrina. A member of the nobility, Gesualdo began his composing life

under a pseudonym. He was soon forced into the open by the notoriety he gained for killing his wife and her lover. He was not prosecuted for this deed, which was apparently legal in Italy at the time.

No doubt he was able to get away with some of his more bizarre musical ideas because, unlike most composers of the day, he was not dependent on patronage, having the luxury of funding his activities through his own means. His very individual composing style may also relate to the tendency for composers in the dying years of a particular genre to push its stylistic envelope. Rather than embarking on an early Baroque style, as Claudio Monteverdi (1567-1642) was doing by this time, Gesualdo chose to continue composing more or less in the manner of the Renaissance.

What is it about Gesualdo's writing that makes him such an iconoclast of Renaissance conventions? Peter Phillips, conductor of the Tallis Scholars, aptly summarizes:

> He often found it necessary to distort the music in the interests of yet greater expression: the melodic lines are given unusually wide leaps, the rhythmic flow is violently interrupted, the harmony is twisted out of any predictable pattern. With Palestrina there is an overall mood, with Gesualdo the mood can change word by word. With Palestrina the smooth movement of the music and balance of the vocal parts ensures a kind of idealized beauty which can never be tiresome, with Gesualdo the basses may sing above the sopranos, the melodies may leap over an octave or by diminished intervals, the underlying rhythm and tonality be destroyed to produce the most vivid colors a renaissance musician ever conceived.[1]

While Gesualdo's church music shows more self-discipline and restraint than his madrigals, which comprised the great bulk of his output, it came late in his career and by then his well-developed musical personality could not be suppressed. Whenever the music isn't stunning you with its sensual beauty, it's crackling with excitement and dramatic intensity.

Gesualdo published two books of motets in 1603, followed by his settings for Tenebrae in 1611, some of which are featured in this new recording by the Taverner Consort and Choir. He often chose texts of a penitential character. "Tenebrae," meaning shadows or darkness, refers to an office sung during Holy Week. Gesualdo composed settings for Tenebrae on Maundy Thursday, Good Friday, and Holy Saturday. This recording features his nine Good Friday motets, placed in their liturgical context by the inclusion of most of the plainsong[2] propers.

Gesualdo's style is perfectly captured in this newly released recording by the Taverner Consort and Choir. The consort, which sings all of Gesualdo's motets here, consists of seven male voices (three altos and tenors and one bass). The choir sings antiphonally with the consort in the psalms and other plainsong propers. This is plainsong singing of the highest order – it has a very monastic flavor but the singers are highly trained professionals whose sense of ensemble is remarkable. And in Gesualdo's motets, which are interspersed throughout, the Taverner Consort combines great virtuosity and pitch accuracy with silky sensuality (achieved though subtle *crescendi* and *diminuendi*) and pointedly dramatic delivery, according to the demands of the music. I can't imagine a more perfectly realized account. It's superior to the more refined approach of the Tallis Scholars, which makes the music sound too much like Palestrina, and even to the stylish and dramatic singing of Les Arts Florissants in their excellent recording of Gesualdo's madrigals [Gesualdo: *Madrigaux*, Les Arts Florissants, Harmonia Mundi CD 901268]. Somehow Parrott and the Taverner group find a balance between these extremes that serves the music well.

While not as vivid as the very best, this recording is quite successful sonically. It was recorded in St. Bar-tholomew's Church, London, England, evidently a fairly resonant venue. It's miked a bit

1 From Phillips' jacket notes for Gesualdo: *Tenebrae Responses for Holy Saturday,* The Tallis Scholars, Gimmell LP 1585-15 (also available on CD as (52.04) 454 915-2).

2 "Plainsong" is the generic, and generally more correct, term for the kind of unison chanting often called "Gregorian chant."

closely but this has the advantage of displaying the voices and their characteristics in great detail. Placement is well defined. There is plenty of hall sound, most noticeably in the plainsong sections. Transparency is good.

It's rare to find a recording that combines artistic excellence with successful engineering. This one does, and as a result, I will play it often. I can't offer higher praise that that.

JOHN HIGGINS

Bizet-Shchedrin: *Carmen* Ballet. Shostakovich: Incidental Music to *Hamlet*. Glazunov: *Carnaval* Overture. Boston Pops Orchestra, Arthur Fiedler, conductor. Peter Dellheim, producer; Bernard Keville, engineer; Nathaniel Johnson' HP Series producer. 24/96 digital remaster. BMG 09026-63308-2

Franz Waxman: *Peyton Place*. Royal Scottish National Orchestra, Frederic Talgorn, conductor. Robert Townson, producer; Jonathan Allen, recording engineer; Bruce Botnick, mastering engineer. Varese Sarabande 302 066 070 2

It is critically fashionable to dismiss Shchedrin's *Carmen* Ballet as a cheap and theatric perversion of Bizet's masterpiece. But if Liszt could write flamboyant piano paraphrases of Wagner operas, and Ravel could orchestrate Mussorgsky's *Pictures at an Exhibition* to critical acclaim, why couldn't Shchedrin adapt *Carmen* into a highly effective ballet? If you examine the repertoire of our leading ballet companies, it's apparent that this sort of thing is done frequently, though rarely as well.

The *Carmen* Ballet works in every conceivable way far beyond the ingenious device of repeating a series of notes and making the melody of the "Toreador Song" resonate in the mind. The orchestration for strings and 47 percussion instruments is as spectacular as it is original. This is not just a pastiche of melodies for dancing. It is a dramatically seamless and symmetrical work that opens and closes unforgettably with low strings underlining crisply and delicately plucked violins and tolling bells playing fragments of the "Habañera."

This work might have been composed for Fiedler, his performance is so incandescent. RCA's 24/96 remastered sound is a revelation, with clarity, fine inner detail, and sizzling percussion transients, even on this version downsampled for standard CD machines. Yes, it is aggressively multi-miked and the cymbals could easily take out a tweeter, but the *Carmen* Ballet was designed to be flamboyant. The sound serves the music perfectly. The CD is electrifying *and* musical.

Peyton Place qualifies as a guilty pleasure because of the notoriety of the sordid best-selling novel. The film, though, was done with considerable taste. The most memorable things about it are its music and sumptuous color cinematography.

Franz Waxman could have been expected to produce a masterly score. In 1957 he had already composed scores for *The Spirit of St. Louis* and *Sayonara*. Here he responded to the stunning photography with a lyrical, pastoral portrait of New England that contains more striking melodies than synthesizer technicians like Hans Zimmer will write in a lifetime. This rerecording is a mixed blessing. There are about eight minutes of music not present on the original soundtrack, which contains 39 of the 53 minutes of music that Waxman wrote for the movie, available to my knowledge only on a well-packaged but difficult to find Spanish RCA CD [RCA 74321720522]. That 1958 soundtrack recording has surprisingly dynamic and listenable sound, but the prominent strings are pretty harsh.* This one is much more softly focused, indeed, to the point where the gauzy sound contributes to the overall blandness of the conducting. Waxman was an excellent conductor. His tempos are consistently faster, more dynamic and sharply pointed, and his instrumental textures are much lighter. This gives a chamberlike quality to the music. Talgorn cannot resist reverentially over-romanticizing the score.

But just listen to the gorgeous horn call over waves of luscious and rippling orchestral sound at the end of the "Swimming Scene."

ARTHUR B. LINTGEN

** But not on the Varese Sarabande reissue of this recording [ERS 6515-ST], which is good enough to make the Super Disc List – no harsh strings here. Keep in mind that the 1958 soundtrack [RCA LSO 1042] was issued at the dawn of the stereo age, when high-level string passages were impossible to cut onto an LP.*

Berlioz: *Requiem. Cinq pièces sacrées*. John Mark Ainsley, tenor; Chorus of the Montreal Symphony Orchestra, Montreal Symphony Orchestra, Charles Dutoit, conductor. Chris Hazell, producer; Jonathan Stokes, Simon Eadon, balance engineers; Graham Meek, location engineer. DDD. Decca 289458921-2

There was a time when a new recording of the Berlioz *Requiem* was a major event. I will never forget Charles Munch's RCA recording of this mammoth masterpiece. For once, anticipation of a wondrous musical discovery did not exceed realization. In the next 45 years, only Robert Shaw's Telarc version, with its exemplary choral execution and phalanxes of tympani and bass drums recorded with unprecedented impact, and Colin Davis emphasizing the classical side of Berlioz on Philips have matched Munch. Now a significant new recording with credible performing forces on a major label barely causes a ripple in the musical press.

Berlioz' music embodies a unique combination of restrained classicism and grandiose romanticism. Nowhere is this more evident than in the *Requiem*, which alternates moments of quiet and ethereal beauty with some of the most staggering choral-orchestral climaxes ever written. I recently heard Sir Simon Rattle conduct the Philadelphia Orchestra in an excellent live performance of Schoenberg's *Gurrelieder*. This work calls for even more massive performing forces than the Berlioz *Requiem*, but in comparison, it sounds bland and dramatically static.

The *Requiem* (and Berlioz' more rarely performed *Te Deum)* juxtapose grandiosity with refined and delicate musical poetry in dramatically cohesive settings. The *Requiem*'s orchestration is stunning. Indeed, Berlioz' startlingly original orchestrations paved the way for Rimsky-Korsakov, Mahler, and Richard Strauss. The climaxes of brass, tympani, bass drums, and chorus make an even greater effect because these full forces are so sparingly utilized in three of the work's ten sections. Perhaps even more effective are the widely spaced flute-trombone chords of the "Hostias" and "Agnus Dei," the flute-string harmonics and soft cymbal-bass drum touches of the "Sanctus," and the haunting choral "Amens" over rising and falling string configurations punctuated by gentle tympani beats at the end. In fact, the whole tradition of French orchestral music evolved from Berlioz, just as virtually every composer who followed Wagner's *Tristan and Isolde* had to deal with it in one way or another.

Dutoit's consistent emphasis on transparency and orchestral color, often at the expense of drama, make him plainly a successor to Colin Davis in presenting the classical side of Berlioz, with special emphasis on the music's lyrical flow. However, Davis was sometimes willing to confront the wild romantic. Dutoit, not unexpectedly, gives us Berlioz lite, but this is superior to his prosaic *Les Troyens* [Decca 443 693-2]. Here the quiet parts are outstanding. The soft and eerie flute-trombone chords make a stunning effect. His integration of the chorus, tenor soloist (well sung by John Mark Ainsley), and the restrained orchestra in the "Sanctus" are just about perfect. The "Agnus Dei" with its modal chord progressions and remarkable orchestration provides a haunting conclusion.

The massive climaxes are not as good. The "Dies Irae – Tuba Mirum" is well paced and achieves an adequate amount of power, but the "Lacrymosa" misses the impression of an implacable musical juggernaut.

Sonically this *Requiem* rivals the Telarc. Any lack of impact can probably be attributed more to Dutoit than the engineers. The climax of the "Tuba Mirum" is encompassed spatially with a sense of ease and head room to spare. The bass drums have warmth and adequate impact. The flute-trombone chords have *never* sounded better. The

flute-string sonorities in the "Sanctus" possess a refined and delicate crystalline clarity. The recording has an excellent sense of ambient space in a suitably churchy acoustic that does not blunt the high end or any other aspect of Berlioz' transparent orchestration. The only substantive defect is that the sopranos in the chorus occasionally have a glassy sheen that makes them sound a little flat.

Despite the fact that Dutoit does not achieve the last word in drama and dynamics, this *Requiem* is excellently recorded, and the playing of the more restrained sections is ravishing. The resulting musical and sonic listening experience is so pleasurable that this recording can take its place near the legendary recordings of Munch, Shaw, and Davis.

ARTHUR B. LINTGEN

Wirén: *Symphonies 2 & 3;* Concert Overtures 1 & 2. Norrköping Symphony Orchestra, Thomas Dausgaard, conductor. Lennart Dehn, producer; Tomas Ferngren, Torbjörn Samuelsson, engineers. CPO 999 677-2 [German label distributed by Naxos]

Dag Wirén is known for his tuneful, zippy little *Serenade for Strings*. In England, the last movement of this work became a popular BBC signature tune. This CD proves that Wirén is anything but a one-shot composer. His music is neo-classic and economical in structure. It has sentiment without being sentimental and is by turns charming and powerful. The composer he will remind you of most is Carl Nielsen, who was one of Wirén's idols.

The symphonies are impressive and disarming. The *Second* has a particularly transparent and refreshing slow movement, with a scherzo in the middle. The invigorating last movement opens over a pulsing ostinato and builds to a fugal section that alternates with radiant lyrical passages. But almost all of this movement, even in its angrier mood, exhibits a lyrical touch; there always seems to be an overlying feeling of optimism in this composer's music. The *Third Symphony* is even more spare than the *Second*, but just as radiant, with an exceptionally beautiful Adagio. Storm clouds dot the third movement as the main themes of the preceding sections are set into conflict, with a happy and optimistic ending on the horizon. The two concert

overtures are succinct and wonderfully constructed, the first full of bustling energy and the second a happy, bouncing piece along the lines of the composer's famous *Serenade*.

Every time one turns around, another good Nordic orchestra pops up. The Norrköping, the youngest of Sweden's seven professional symphonic ensembles, is excellent. The woodwinds are virtuoso, the brasses are exceptionally mellow, and the strings play with good ensemble and unforced, natural tone. Thomas Dausgaard paces all of Wirén's music with an unerring sense of timing. The recorded sound is also quite good. There is less stage depth than I usually like, but this is

compensated for by a notable clarity and near perfect frequency range and dynamic balance. Near, because the percussion does seem slightly buried in a few congested tuttis, though absolutely clear in more transparently scored ones. All in all, this is a superbly played, well-recorded disc of delightful, seldom-heard music.

RAD BENNETT

Purcell: *Dido and Aeneas.* Dido: Janet Baker, mezzo-soprano; Aeneas: Raimund Herincx, baritone; Belinda: Patricia Clark, soprano; Sorceress: Monica Sinclair, contralto; Sailor: John Mitchinson, tenor; the St. Anthony Singers; John McCarthy, chorus master; English Chamber Orchestra, Anthony Lewis, conductor. Ray Minshull, producer; Kenneth Wilkinson, engineer. Decca Legends 289 466-387-2

This recording was made in 1961, when the early-music revival was just getting started. It is much to the credit of Anthony Lewis, Thurston Dart, the harpsichordist, and the other excellent musicians involved in this project that it still sounds fresh and vital. There has been much debate about what Purcell intended in this

opera. But even those performances that seek greater accuracy pale in comparison to the innate musicality and high energy of this one.

At its core is the Dido of Dame Janet Baker, then just beginning her career, but already at the height of her vocal powers. I do not think anyone has sung Dido better on a recording. As a mezzo, Baker brought a darker quality to the role, yet was perfectly capable of reaching all the top notes, since the part does not go that far into the soprano stratosphere. More important, Baker brought a thorough dramatic understanding to the role and used her voice with supreme intelligence to achieve her dramatic vision. The events leading up to Dido's death are illustrative: Aeneas says he is leaving, and Baker's Dido dismisses him in vocal anger worthy of Tosca. "Away, away," she hurls out. After he has gone, her tone is cowed, she mutters, "But Death, alas! I cannot shun." Then comes the crowning moment, the famous lament, "When I am laid in earth," which as Baker sings it, is heartbreaking. This is triumphant artistry.

The rest of the cast is also quite good. The sorceress and her attendant witches relish their work more than the norm, taking great delight in such lines as "Our plot has took, the Queen's forsook!" Raimund Herincx is a virile, robust Aeneas, sounding more like a hero than most others. And the chorus is beyond reproach. You can sense an intake of breath that allows the opening "h" in "Harms our delight" to explode in an incredible manner, and it colors its tones beautifully. Listen to the way it flavors the Witches Chorus with Echo, "how dreadful a p*ract*ice." Dramatically delicious. The English Chamber Orchestra was the best in the world in the Sixties, and plays like it.

The recording was done when Decca and RCA were doing soundstage recording of operas, including movement and perspective to give an impression of stage performance. The producer wisely recognized that he couldn't have too much ping-ponging in a such a work, but there is some effective spacing. In the opening act dialog and duet between Dido and Belinda, both are center, Dido just slightly right and Belinda slightly left; they are close, but do not share exactly the same space. The spirit that speaks to Aeneas is heard from the right rear, almost offstage. The chorus sounds a bit too close, but since it sings so well, not too many people will mind. Thurston Dart's harpsichord is balanced nicely with the strings; you can hear it clearly, but it is not overbearing. As with most Wilkinson recordings, the bass is a bit unrealistically solid, but many will actually like that.

If you want original instruments and the scholarly information that has surfaced since the Baker recording was made, I recommend a recording on Vox [7518] with Jennifer Lane as Dido and I Musici di San Cassiano. Conductor Bradley Brookshire performs the piece in Venetian style (one upper string to a part, continuo with two bass instruments – cello and viola da gamba, here – two harpsichords, two baroque guitars), which Purcell surely would have known. It is wonderful sounding, competently sung and played (and a version I love). But the fact remains that this Decca Legend contains singing of a higher order. Baker's Dido is an artistic triumph that has weathered the years and come out, thanks to Decca's new processing, as vibrant as ever.

RAD BENNETT

FOR CHILDREN

Dance on a Moonbeam: A Collection of Songs and Poems. Bill Crofut, voice and banjo; Julianne Baird, Benjamin Luxon, Dawn Upshaw, Fredericka von Stade, vocalists. Meryl Streep, speaker. London Symphony Orchestra, Joel Revzen, conductor. Chorus Angelicus, Paul Halley, conductor. Telarc CD 80554

In through the window flies the rarest of avians, a CD for children that doesn't patronize. Meryl Streep, for example, recites as beautifully as ever I've heard brief passages from Shakespeare as relevant segues among a delightful assortment of sung items. No cause for parental concern: The Shakespeare morsels and songs are simple enough in language, and enchanting enough to keep the young engaged (five years and up, say?). The mood is largely banjo-folksy, a category in which I find few attractions. Yet, given what this handsomely produced release sets out to do – entertain the kids – let's give it a perfect ten. The orchestra and chorus' role is secondary to that of small ensembles. On Track Ten, Julianne Baird (an early music specialist of high repute) sings Robert Louis Stevenson's "The Friendly Cow" to an accompaniment of banjo, string bass, guitar, and recorder. Ravishing! The collection also includes the Shaker hymn "Simple Gifts," which Aaron Copland appropriated so affectingly in *Appalachian Spring*. The disc I'm working with goes to one pair of grandkids. I need another for the other pair.

MIKE SILVERTON

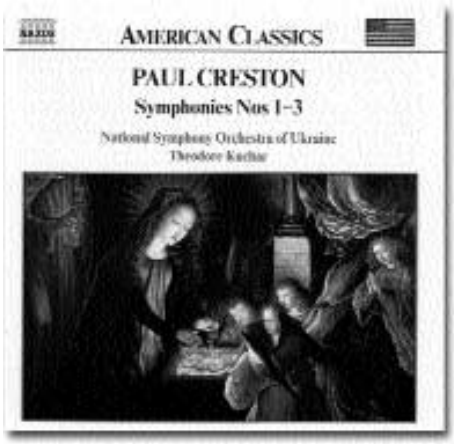
DAN DAVIS

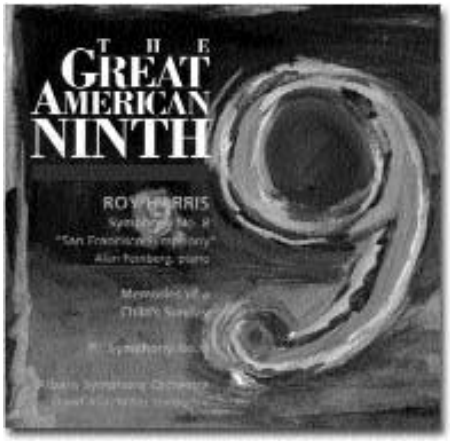
Neglected Composers

Much of the music encountered in record stores is absent from concert programs. There seem to be two distinct areas of repertory – one embalmed in plastic jewel cases, the other in concert halls – and they rarely overlap. When was the last time you heard a piece by William Alwyn in concert? Audiophiles know his symphonies from superbly recorded Lyrita LPs and film buffs know his film scores, but for concert audiences, he never existed. Chandos has recorded much of his orchestral and chamber music. The *Schwann Catalog* still lists John Ogdon's 1985 CD of his *Fantasy-Waltzes* [Chandos 8399] and recently I've been listening with enormous pleasure to a new recording of Alwyn's piano music, played by Julian Milford [Chandos 9825].

Both discs feature Alwyn's major keyboard work, the *Fantasy-Waltzes*, but Milford adds recorded premieres of four other works including the substantial *Sonata alla toccata* and *Movements for Piano*. In *Movements*, written in 1961 after a fallow period and a breakdown, Alwyn's dammed-up emotions burst through in a first movement marked by troubling mood shifts. The second movement, Evocation, has an otherworldly cast, and the final, Devil's Reel, is appropriately diabolic.

I thought Ogdon's version of the *Fantasy-Waltzes*, one of the century's great works for piano, was unbeatable, but Milford's is as good. He's quite close to Ogdon in most of the work's dozen pieces, but has his own valid take on others. His VI, *allegro giacoso*, is more high spirited. In the extraordinary IX, marked *Lento e lugubre*, he is more searching, which suits a piece reminiscent of some of Schubert's late sonata slow movements, where themes also flow gracefully, falter, and disintegrate. Ogdon's version is slightly more neurotic and ghostly, even at a faster speed, but Milford captures the unsettling mystery. Alwyn fans will want both, for Milford's premieres and for Ogdon's *Twelve Preludes*, a major work. Ogdon gets closer, more immediate sound that flattens dynamics; the microphones are moved a bit further back on Milford's CD, capturing more ambience at no cost to presence.





Closer to home, the generation of American composers swept away by changing fashion is enjoying a revival on CD. Roy Harris was once a presence on concert programs; today, only his *Symphony No. 3* is played. But he wrote nine, and they have some wonderful music. That's a reasonable conclusion after hearing his Eighth and Ninth by the Albany Symphony Orchestra, led by David Alan Miller [Albany; Troy 350].

The disc opens with the delightful *Memories of a Child's Sunday*, which captures the joys and anxieties of childhood in a sparely orchestrated, relaxed 12-minute work. The *Ninth Symphony* is tougher stuff. The titles of its three movements are drawn from the Constitution, and the third movement's sections are titled with phrases from Walt Whitman's poetry. Portentous? Yes, but not pretentious. It's melodically rich and full of shifting textures and rhythms. Especially outstanding is the slow movement, "to form a more perfect Union," tinged with sadness and anxiety, and ending with a brief, questioning string cadence, suggesting that the vision of perfection remains elusive. The *Eighth*, subtitled "San Francisco Symphony," is loosely based on the life of Saint Francis. Its bright, shimmering percussion, light textures, and ripe harmonies reflect Harris' pantheism. There's a significant piano part, dashingly played by Alan Feinberg.

The proficient Albany band gives its all, doing justice to the music, even if it leaves you hungering for the juicy strings of the Philadelphia Orchestra, which premiered the *Ninth* under Ormandy. The sound, from the Troy Savings Bank Music Hall, has enormous depth and tonal integrity.

The Harris disc is only one

of a series of important releases of American works on Albany. Three CDs released over the past year or two give special pleasure. George Perle's often knotty but always fascinating music, including his *Piano Concerto No. 1* brilliantly played by Michael Boroskin, is on Albany Troy 292. Troy 260 features the Fifth and Sixth symphonies of Peter Mennin, again featuring Miller and his Albany Symphony, who also perform works by Morton Gould on Troy 300. All have important music well performed with informative notes and excellent sound.

Naxos' American Classics series is another source for neglected native repertory. It's remarkably inclusive, ranging from Sousa marches to Walter Piston's great violin concertos, which were an instant sensation when James Buswell's recording was released [Naxos 8.559003]. Lately I've been listening to a Naxos disc of Paul Creston's first three symphonies, surprisingly idiomatic as played by the National Symphony Orchestra of the Ukraine under the baton of its American conductor, Theodore Kuchar (reviewed elsewhere, this issue) .

Another major composer heard in concert halls only when some touring cellist performs his sure-fire hit, *Schelomo*, is the Swiss-born naturalized American, Ernest Bloch, whose finest works reflect his Jewish heritage, his American modernism tinged with Old World influences, and his love of Bach. These are displayed in a notable release gathering his major works for solo cello played by Peter Bruns [Opus 111 OPS 30-232]. With pianist Roglit Ishay, he plays several of Bloch's shorter "Jewish" works, including an arrangement of "Baal Shem," originally written for violin. These are emotionally direct, poignant pieces containing movements that will have you snapping your fingers and tapping your toes.

The main attraction is Bruns' technically stupefying account of the three Suites for solo cello. Written in 1956 and 1957, they are among Bloch's finest works. It's hard to imagine better performances. Bruns clarifies their complex structures, bringing them to life with tonal and rhythmic variety and breathtaking technical wizardry. As usual, Opus 111 provides state-of-the-art sound that puts Bruns in your listening room.

Shostakovich is a frequent presence on orchestral programs, but why do violinists shun his magnificent late *Violin Sonata* Op. 134? Perhaps because the piece is owned by David Oistrakh, whose live recording with Sviatislov Richter at the piano was considered unlikely ever to be matched. Well, it has been, by two young Brits new to me, violinist Daniel Hope and pianist Simon Mulligan [Nimbus 5631]. No, Hope hasn't a hope of matching Oistrakh's infinitely variegated tone, but his fiercely focused playing is riveting. The strange, elusive first movement is horrendously difficult to bring off, but the pair create such tension, you find yourself holding your breath. The wild second movement, full of slashing attacks and driving rhythms, leaves you limp. And they admirably sustain the third movement's troubling intensity. The engineering underscores the impact of this music, with a close-up, powerful sound that captures Hope's upper treble harmonics and the rich bass notes on Mulligan's piano.

Two additional pieces by Alfred Schnittke on this disc are also interesting. His *Violin Sonata No. 3*, completed in 1994 just before his final stroke, is an emotionally powerful work, suffused with mystery. It's followed by his *Stille Nacht*, which turns the familiar "Silent Night" theme into a broken, painful shell. Schnittke called it "a lighthearted Christmas present." It's anything but.

The Magnificent Seven: New Artists Emerge from the Fringes

The year 2000 has proved, so far, a banner year for pop and rock records, though, owing to the lack of promotion, many don't get the attention they deserve. Here are seven choice releases from newer, lesser-known music-makers who, while not superstars, repeatedly catch my ear and remind me why I love music.

I'm magnetically attracted to Seattle's Murder City Devils. Many of the songs on its third record, *In Name and Blood* [Sub Pop 497; LP and CD], sound as if they belong to noir's dirty alleyways, and dim, smoke-filled, alcohol-soaked rooms where under-the-table deals are cut. It seems to me that this group finds inspiration in classic films like *Kiss Me Deadly* and *Night and the City* for the killers, whiskey, guns, and nooses that litter the songs' landscapes. Despite the band's street-tough nature, there's an old-world class to the performance. This is largely owing to band chemistry. But it's also because of a magic weapon – a haunting organ – that, along with two guitars, a bass, drums, and vocals, completes the group's sound. Popular in the late Sixties, the organ is the dinosaur of contemporary pop music, but when you hear it drive MCD's songs, you'll wonder why it disappeared. As the organ pipes out dirges, vocalist Spencer Moody shouts and howls as if he were running for his life. An assortment of bombastic, melodic guitar riffs, ranging in style from surf instrumentals to overdriven power chords, pair with stinging bass lines, and give the impression that Judgment Day is near. Coady Willis' aggressive drumming happens to be the best sonic quality of the record; every beat, accent, and cymbal is transparent, clean, and defined. *In Name* is well-recorded, and no aspect, be it highs, lows, or bass, is short-changed in the name of commerciality. Be assured, these guys can *play*, and with every album, improve tenfold.

Murder City Devils

On its self-titled third release [Touch and Go 214; LP and CD], The For Carnation comes as close to establishing tangible precision and perfection through sound as anything I've heard. Because of the music's complexity and extensive, calculated arrangements, some critics brand it "math rock." It is tonally precise, non-improvised, and systematic in nature, blended with grandiose, Seventies-era prog-rock complete with electronics and orchestrations (think King Crimson, early Yes) – though TFC injects what can loosely be described as "space music" into the mix, making for a fascinating patchwork of sound. When I consider Chicago's architectural assertiveness, and math rock's roots in Chicago, *The For Carnation* strikes me as a geometric musical reaction to the mazes of sidewalks, bold ranges of square, trapezoidal, and triangular skyscrapers, and ornamental Frank Lloyd Wright glass designs found in the city. How is this possible? Well, thick-skinned drums are gently whacked in a methodical, metronomic fashion, and provide the songs' foundations. Then, there's a minimal number of bass notes, which united with a constant, stirring keyboard drone, give off an up-and-down, angular vibe that mimics postmodern art, the delicate urban balance between chaos and control, and the Chicago skyline itself (its skyscrapers are sharper and more angular than, say, New York City's vertical but softer Art Deco monuments). As TFC manipulates each instrument's tone and pitch, it conveys the sonic impression of raw materials; a single guitar note may be held for *minutes*, causing it to metallically ring or softly vibrate, as mist seems to do when it solidifies briefly against a steel frame. In the slow, deliberate music, you can hear the buildings speaking, the raw steel of the I-beams and concrete bonding, and the sound of rolling clouds colliding with the structures themselves. Birdlike electronic fills spiral around circulating percussive loops, recreating the human echoes and industrial hiccups that occur between buildings and rebound off the miles-high glass and steel surfaces – only to be softened or muted when low-lying clouds and fog drape the steel structures. The songs – musical sculptures – are trancelike, and though occasionally topped off with wispy, murmuring vocals, their statuesque framework shifts attention away from the lyrics and toward the instruments, an assembly of guitars, drums,

echoes, keyboards, cellos, violas, bells, and electric and acoustic bass. The sense and dedication TFC devotes to the music applies to the album's production: We hear the music structurally, as it is carefully assembled, chord by chord, note by note, a quilt of dynamic contrasts, making the lyrics seem as mere afterthoughts.

Those who long for the sweet, percolating country tones of the unforgettable Dusty Springfield owe it to themselves to listen to *Beneath the Country Underdog* [Bloodshot 62; CD], Kelly Hogan and the Pine Valley Cosmonauts' latest recording. Hogan reaches deep into tradition: warm vocals, big-band back-up (including pedal steel, mandolin, fiddle, piano), and call-and-response vocals. These musicians are in a league few bands ever reach; established players like Jon Langford (guitar), Steve Goulding (drums), and Tom Ray (bass) remind me of the great studio musicians from the Sixties who provided the rhythmic backbone for so many of producer Berry Gordy's memorable Motown albums (i.e., the Temptations, the Supremes). On any other record, the Cosmonauts would be the main attraction, but there's no escaping the attractiveness of Hogan's voice. She weds gospel and honky-tonk, and joined with the solid backing of the Cosmonauts, refuses to be pigeonholed as country or anything else – like Johnny Cash, she simply makes American music. Hogan's beautiful voice distinguishes her from today's country one-trick ponies. An arc of air surrounds her, allowing us to hear her nuances, breaths, and active approach to the material. There's wide separation among the musicians, and consistent levels of bass and midrange, which make the Cosmonauts sound all the better. Here, original songs, as well as music by Willie Nelson, The Band, and others, dazzle your soul.

Like labelmate Hogan, Neko Case did time in several pop/rock bands before returning to her first love, country. While Case's first offering, *The Virginian* [Bloodshot 028], is occasionally musically dry, her spirited voice and personalized lyrics showed tremendous potential, which she reaps on *Furnace Room Lullaby* [Bloodshot 050; CD]. By comparison, Case's voice is more "country" than Hogan's, and while it lacks Hogan's soul-and-gospel qualities, it allows Case to veer toward country's edgy side, occasionally flirting with

pop-punk and acoustic folk elements. *Furnace*'s tunes drip with regret, disappointment, and tear-in-my-beer emotion, but there's also a mysteriousness in

Damien Jurado

the lyrics, shifty rhythms, and most of all, in Case's feverish voice. On both records, Case has great vocal control, knowing just when to employ restraint, and when to let her chords rain down; she uses her voice the way a detective uses eyes, her vocals always confronting us – we're surely guilty of something, if only she knows. Case's band, called Her Boyfriends, plays everything from swing to shuffle, periodically echoing the rocking sound of Bruce Springsteen's E Street Band, and at other times, the playfulness of Bob Wills' Texas Playboys. The first time I heard Case's "Thrice All American," I just froze. Its dark, bare-boned pensive similarities to Bob Dylan's 1962 territorial classic, "North Country Blues," are startling. Then, and now, I think of Case as an extension of the "lost" folk, country, and jug-band music that's being rediscovered, her music fitting in no particular time period, its lyrics, which speak of demons, knives, and lost souls, documents of small, forgotten towns and their inhabitants. The considerable depths to which the lows plunge, and the moody background vocals that subtly rise from the soundstage's rear, intensify this impression. With *Furnace*, Case makes a bridge between typical music-genre boundaries.

We also have offerings from two emerging bands on Epic Records that earn their place among the year's most intriguing records. Here's why. Undoubtedly, the "biggest" artist mentioned in this article is Travis, a Scottish quartet that, on its first US release, *The Man Who* [Epic 62151], attains the pop greatness its UK contemporaries, the overhyped Oasis, never realized. Travis' breakthrough is its contemplative first single, "Why Does It Always Rain On Me," and while it's a fine single, it doesn't clue you into the band's comfortable, melodic style. *The Man Who* is evidence of how a band can utilize Lennon and McCartney's understanding of chords, tones, and delicate harmonies without seeking to be the Beatles. Travis' music gives no indication of ego or attitude that would prohibit it from being embraced on both shores. What we hear is music that's heavily laced with treble, pop that's almost embarrassingly catchy, and high-pitched, sun-soaked vocals that ooze sympathy while they mock self-pity – you'll be singing along in no time. Some may find the recording a bit warm, with too many highs, but digital pop has a history of accenting the highs, not the lows, so it's really no big deal. Any such reservations will vanish once you hear that gorgeous music. (Hint: *Man* lists 10 tracks, but if you let the CD continue, you'll discover an EP-worth of material lurks past Track 10.)

For a moment, imagine the sounds of pop over the last 30 years placed into a blender, pureed, chopped, then poured into the grooves of one record; now hit "play." Portland trio Modest Mouse has been active since 1995, releasing three successful albums on indie labels. Its Epic debut, *The Moon and Antarctica* [63871], showcases the group's swarmy, quirky compositions with sonics that illuminate the band's multi-faceted instrumental nature. Following no preset pattern or fitting any general mold, *Moon* is one of the most diverse pop or rock albums you'll get from a major label. MM follows the musical path established by Idaho's Built to Spill (see review, Issue 118), in that the album's core sounds are made by drums, basses, and guitars, and assisted by keyboards, mandolins, percussion, and hordes of noise pedals. Isaac Brock's talking-out-the-side-of-his-mouth vocals may sound as if they need a dose of TheraFlu, but vocals aren't MM's specialty. Concentrate instead on the trippy, squiggly soundscapes. You'll hear the wiry guitar warble of the Buzzcocks, atmospheric head-in-the-clouds pop of the Flaming Lips, and muffled speak-and-say effects of early Pink Floyd. Those who say all new music "sounds the same" haven't encountered *Moon*; no song is like another, whether it be the flaming disco-queen groove of "Tiny Cities Made of Ashes" or the acoustic-grunge rumble of "I Came as a Rat." Producer Brian Deck opts to configure MM's music like a movie soundtrack, so rather than sounding "live," *Moon* unfolds as a cautious piece of 3-D art – where the storyline lyrics become the visual, and the music, which swarms and surrounds the visual in a giant soundfield, provides depth, perspective, and borders.

Arriving just in time to beat deadline is *Ghost of David* [Sub Pop 507; CD], the third record from singer-songwriter Damien Jurado. Jurado's two previous albums feature remarkable lyrics, but lack musical distinction. That's changed now. On *Ghost*, the self-touted "urban-folk" musician delivers the first bedroom classic of the new century. *Ghost* is a modernized version of Springsteen's 1982 cut-and-dry acoustical commentary, *Nebraska*. While *Nebraska* starkly speaks of the aftermath of a failed American political administration and trickle-down economy that led to lost factory jobs and rampant homelessness, *Ghost* is a personalized work that, in its sparse nature, communicates the mental drowsiness and hanging-on-a-thread feelings of the fringe characters depicted in the lyrics. Even if you don't think you relate, Jurado's music resonates; the bare echo of piano chords, resilient vocal calls, and stalwart guitar-string picking make a lasting impression. Like Lou Reed, the preeminent urban folk/rock songwriter, Jurado draws upon a bevy of musical styles that set the stage for his city-dwellers' lives. For example, on "Ghost of David," Jurado plays a crawling folk shuffle to pull us in, but then abruptly shifts direction and by continuously strumming one chord, takes us on a one-man march. Jurado's vocal approach is a cross between Neil Young's smoggy balladeering, Lou Reed's street-smart New Yorker stiffness, and James Taylor's reassuring gentleness; the vocal personality arises from the individual song. Because this is a home-made recording, we're closer to the sound – indeed, Jurado could have recorded *Ghost* in our own rooms, so close is the music. I occasionally got goosebumps. If you can tolerate song-by-song sonic shifts that have Jurado sounding more defined and focused on some songs than others, and infrequent cold-textured electronic drum beats, you'll find *Ghost* a tender recording, and the imperfect sound a proper accompaniment to the songwriting.

Postscript: Noteworthy releases that barely missed my Magnificent Seven cut include Jill Scott's *Who Is Jill Scott?* [Hidden Beach 62137], Kina's *Kina* [DreamWorks 50113], and Dechard's *Stereodreamscene* [Reprise 47352]. Look for capsule reviews on the web.

BOB GENDRON

LAST PAGE

Math Test for Orchestra Members

1. Armando is the dynamic new conductor of an orchestra and has increased the ticket sales for the classical series 95 percent. If the concert hall holds 3,200 people, and the concerts begin promptly at 8:05 pm, how many digital watch alarms will go off within one minute of 9 pm? Within 5 minutes?

2. Richard has been a professional timpanist for 35 years. In his personal kit, he owns 32 different yarn mallets, 12 different wool mallets, 5 different rubber mallets, and 2 different polished brass tack hammers. What are the odds that a conductor will ask him to use different mallets at the first rehearsal of a Haydn symphony? A Mahler symphony?

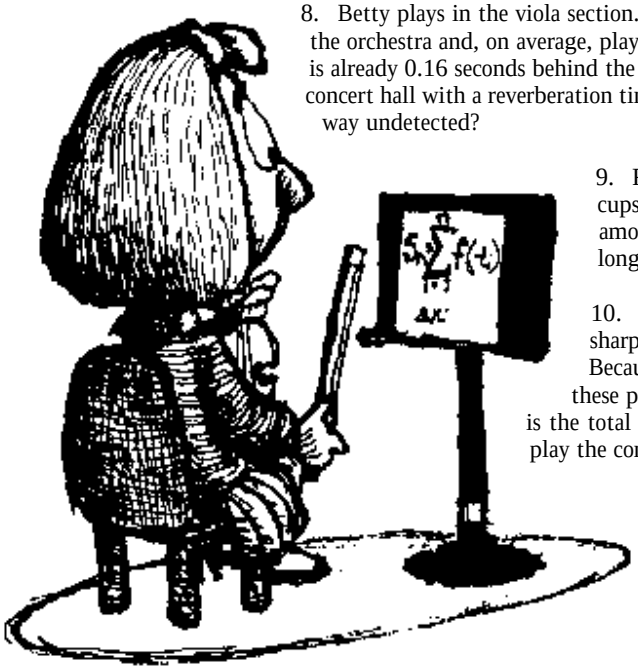
3. Julinda's orchestra performs Dvořák's "New World" symphony every 6 years, Sibelius' *Swan of Tuonela* every 4 years, and Berlioz's Overture to *Benvenuto Cellini* every 3 years. What are the odds that, in any given year, the program notes will include the sentence "The English Horn is neither English nor a horn"?

4. Sandy is tired of paying for clarinet reeds. If she adopts a policy of playing only rejected reeds from her colleagues, will she be able to retire on the money she has saved if she invests it in mutual funds (yielding 8.7 percent) before she is fired from her job?

5. Jethro has been playing the double bass in a symphony orchestra for 12 years, 3 months, and 7 days. Each day, his inclination to practice decreases by the equation: (total days in the orchestra) x .000976. Assuming that he stopped practicing altogether 6 months ago, how long will it be before he is completely unable to play the double bass?

6. Wilma plays in the second violin section, but specializes in making disparaging remarks about conductors and other musicians. The probability of her making a negative comment is 4:7 for any given musician and 16:17 for conductors. If there are 103 musicians in the orchestra and the orchestra sees 26 different conductors each year, how many negative comments does Wilma make in a two-year period? How does this change if 5 of the musicians are also conductors? What if 6 of the conductors are also musicians?

7. Horace is the General Manager of a symphony orchestra. He tries to hear at least four concerts a year. Assuming the orchestra plays a minimum of 3 pieces at each concert, what are the chances that Horace can avoid hearing a single work by Mozart, Beethoven, or Brahms in the next 10 years?



8. Betty plays in the viola section. Despite her best efforts, she is unable to play with rest of the orchestra and, on average, plays 0.35 seconds behind the rest of the viola sections, which is already 0.16 seconds behind the rest of the orchestra. If the orchestra is moving into a new concert hall with a reverberation time of 2.7 seconds, will she be able to continue playing this way undetected?

9. Ralph loves to drink coffee. Each week he drinks 3 more cups of coffee than Harold, who drinks exactly one-third the amount the entire bass section consumes in beer. How much longer is Ralph going to live?

10. Rosemary is unable to play in keys with more than three sharps without making an inordinate number of mistakes. Because her colleagues in the cello section are also struggling in these passages, she has so far been able to escape detection. What is the total number of hours a day they would all have to practice to play the complete works of Richard Strauss?

SUBMITTED BY NICK JONES
PROGRAM EDITOR/ANNOTATOR
ATLANTA SYMPHONY ORCHESTRA