

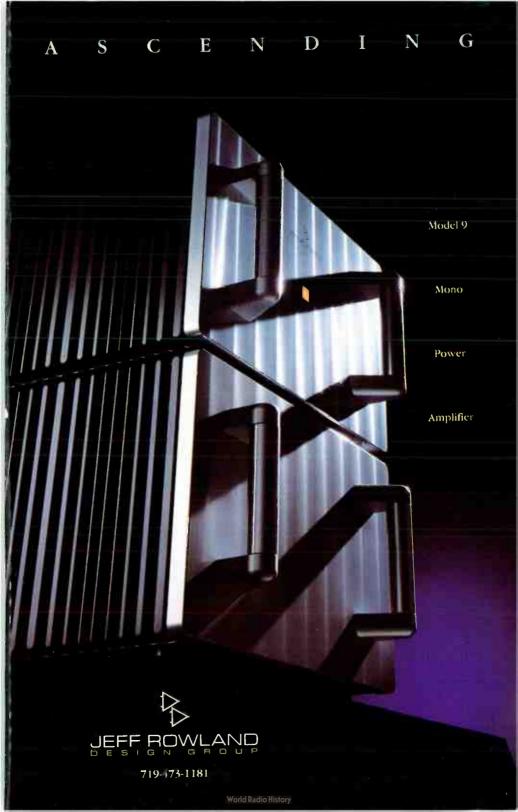
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the audiophile voice

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Tt was real nice to hear from David Robinson the other day. Dave is the editor of *Positive Feedback*, the widely distributed and much-admired—publication of the Oregon Triode Society. The main purpose of his call was to generously offer The Audiophile Voice a free quarter page ad in their magazine. Dave added that he was making the same offer to other high-end magazines as well. There was no political agenda; he was doing it simply in a spirit of fellowship and camaraderie.

Naturally, we couldn't be happier. After all, free ad space is free ad space. But aside from that somewhat selfish reaction, Dave's offer helped remind us of something important: With the highend showing signs of vulnerability [see Mark's article, "The Sick High-End," in this issue] it's important for us to stick together in pursuit our shared goals: "Truth, Justice and the Sonics."

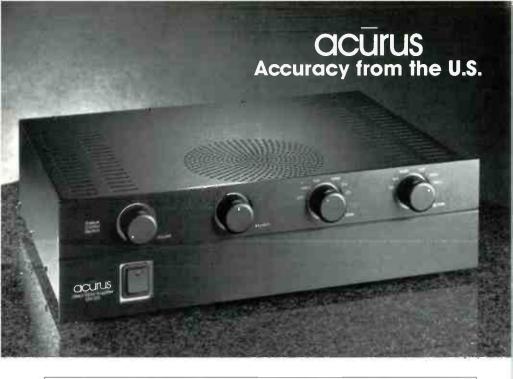
The Audiophile Voice would like to follow Positive Feedback's example and make the same offer to other high-end publications. Yes, we're copycats, but this is one good idea that begs to be borrowed.

All audiophiles depend on a vigorous high-end industry pushing the limits of high fidelity to create the kinds of audio components that serve the music—be they tubes or solid state, triodes or pentodes, planars or cones, turntables or digital processors. We may disagree with each other sometimes, we may have differing opinions on what constitutes musical artistry, but our basic agenda is the same. What helps one publication or one audio society or one small high-end company helps the whole, because it promotes our common purpose: beautifully reproduced sound.

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Vol. II, No. 1

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Sound Off

Reviewer Conduct

The following new rules have been issued to all writers on The Audiophile Voice staff. We are printing them here to let manufacturers know what our policies are, and because we think our readers might also be interested.

SOLICITING EQUIPMENT

Equipment should be solicited by the senior editors. You may, however, solicit equipment on your own if so directed by the editors—in which case, you must keep us *completely* informed, either by phone, fax or modem (Mark's CompuServe address is 72733,1467). This means tell us everything and tell us immediately. We will then confirm the loan with the manufacturer.

There are several reasons for this, the most important being that we don't want the manufacturers bothered with reviewers stumbling over each other in an attempt to review the same piece of equipment. This has, unfortunately, already happened several times. One former reviewer told a cable manufacturer that he needed interconnects for a cable survey. The problem was we knew nothing about this "survey," and another writer had already been given the wires for review. The manufacturer called us up and quite rightly asked, "What gives?" We've also been called by manufacturers who ask, "When's the review coming out?" We do not want to be put in a position of answering "What review?"

Another concern is reviewers who grab up more equipment than they can handle. We understand that sometimes circumstances arise that interfere with your reviewing schedule. If you realize that you don't have time to review a

certain piece of equipment in a timely fashion, don't hang onto it—get it reassigned to another reviewer. The manufacturer deserves a review!

Strong-arm tactics will not be tolerated. Reviewers have the power of life and death over the products they review—and sometimes over the companies themselves. Your review can cost people their jobs! It is not fair to take advantage of that situation. Threats can come in many forms, from the overt to the covert to the artfully sneaky: "You really should send me your new preamp, because, y'know, I'm reviewing your competitor's preamp and I'm going to have to mention that I like it better than your old preamp, since I, y'know, haven't heard the new one . . . blah, blah, blah."

Understand the distinction here: Asking for equipment is fine; implying that there may be unpleasant consequences if the equipment is not forthcoming is a threat. Any form of threat, no matter how veiled or how mild is unacceptable to this magazine. If the editors hear about it, you are off the staff.

EQUIPMENT FOR EVALUATION

Equipment must be reviewed in a timely manner; four months should normally be enough time to evaluate any piece of equipment; six months is more than enough. When you need to keep a piece of equipment longer than that, you should OK it with the manufacturer, distributor or rep from whom you obtained the equipment. The manufacturer may be fairly *laissez faire* about letting you keep the equipment longer; if the product is hot, they'll probably want it back quickly—in

which case, you must send it back immediately. Period, end of discussion. When the review is finished (that is, when the editor has seen your copy and approved it), ask either a magazine editor or your manufacturer contact about shipping the piece back. If you end up hanging on to the equipment (to use it in an upcoming comparison review, for instance) or buying it, inform one of the senior editors at the magazine. Which brings up . . .

BUYING AT ACCOMMODATION

Purchasing equipment directly from the manufacturer is a tricky business. The manufacturer is caught in the middle between their dealers, who don't want to lose sales, and reviewers, who can promote sales by writing about the products they use. The abuse of this relationship comes when a reviewer frequently buys equipment at a discount, uses it briefly, then turns around and sells it for as much or more than he paid for it. Reviewers for *The Audio*phile Voice must agree to clear all accommodation purchases with one of the Senior Editors, and must further agree to keep possession of the equipment for at least one year before selling it. After one year you may resell the component at fair market value. If financial circumstances force you to sell the equipment in less than one year, or if you stand to make a profit on the sale of any equipment purchased through the magazine, the manufacturer should be allowed to exercise his right to buy back the piece at the original price.

CONTACT WITH MANUFACTURERS

The threats we spoke of earlier can work both ways: A manufacturer can threaten to pull his advertising if the reviewer doesn't soften a negative review. Ironically, then, they have the power of life and death over us. However, crude tactics by a manufacturer must never have an effect on a review. Look at it this way: We should treat contacts with manufacturers the way we would *like* our congressmen to treat Washington lob byists. Don't ignore them—they often have something important to say-but don't let them control us. Only do the expedient thing if it happens to be the right thing.

Many manufacturers will schmooze writers in order to influence the review—be on guard. Of course, many manufacturers really are nice people people you'd like to get friendly with. After all, they create the toys we love so much, the toys we build our recreational—perhaps even spiritual—lives around. The good thing about being friendly with a manufacturer is that information is a two-way street: You can pick up valuable wisdom that you can use in your review; you can get tips for setting up the equipment; you can hear industry scuttlebutt and inside dope. However, you must learn to separate business and friendship. When you write your review, it's down to business. If you can't handle the dichotomy of the relationship, you can't be a iournalist.

The Editors



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The MA-333 Gold is a full feature three chassis Preamplifier (Phono, Line & Power Supply), of dual mono design in order to completely isolate power transformers and their magnetic fields from the critical audio circuits, and allow maximum separation of the stereo channels to achieve a level of sonic purity which is only possible when all stages are completely isolated.

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Vinyl Ventures

Shaded Dogs and Other Delights

Arnis Balgalvis

hen talk turns to vinyl reissues the name of Classic Records is sure to come up. This new company recently formed by Mike Hobson and Ying Tan has rocked the vinyl establishment with an unprecedented sense of excitement. Why all the excitement? The answer is simple: RCA Shaded Dogs! Make that Hot Shaded Dogs. How hot? Well, when you start with the original master tapes, get none other than Bernie Grundman to do the mastering, have Jack Pfeifer—the original producer—there to guide you, supply the original cover art work, and sell all this for all of \$30, you've got a sizzling Shaded Dog!

But as good as Classic Record's intentions are there is still a real world out there, replete with predictable obstacles as well as many more worrisome unknowns. Let's face it—these guys are very ambitious. Their present proposed production schedule is mind boggling. And by the time you read this, Classic Records should have a total of nine releases in the stores. Not bad for a project that was unveiled as recently as the winter CES in Las Vegas and did not get rolling until mid February 1994. It sure looks like their promise to reissue 30 RCA Living Stereo LPs is quickly becoming a reality.

But that's not all! In addition to the 30 RCA Living Stereo albums already acknowledged, Classic Records has recently obtained the rights to reissue an additional 25 titles from what is commonly known as the Decca RCA series.

Mention RCA Living Stereo and most people will think of Reiner, Munch, CSO

and BSO. But serious collectors know that interspersed among the RCA Living Stereo LPs were a number of releases with very strong European ties. These recordings, distinguished by having been recorded by some of the most renowned Decca engineers at various sites in England and France, captured performances by European orchestras under the direction of conductors well regarded there but not so popular Stateside.

The Decca RCA releases were, sadly, not very well received by the buying public in the mid 1950s. Because of low sales, very few of the recordings can be found today, which sets up a very interesting situation: Besides the exceptional recording quality, it just so happens that many of these performances were exemplary, and have now become legendary. The artistic quality, the engineering excellence, and the fact that very few were sold has combined to produce a very desirable collector's commodity, commanding very high prices in today's market. That some of these recordings will also be remastered by Classic Records is an audiophile dream come true.

As you know by now, the LP reissue field is an increasingly busy place, with a commensurate increase in the flow of competitive juices. Not wanting to lose any edge Classic Records may now have in working out future deals, Mike Hobson was reluctant to volunteer any specific reissue information. He did however tell me to stay tuned: By the end of 1994, Classic Records will have scheduled a total of 100 titles. And, yes, Mike did intimate that other labels just might figure prominently in their plans.

Obviously, these guys are serious. But so are Dave Wilson, Mobile Fidelity, Acoustic Sounds and a number of other people doing their best to rejuvenate the reissue field. For a definitive summary of who is doing what in the vinyl venture world, read Frank Doris's special report, "The State of Analogue 1994—The LP Lives!" in issue 94 of *The Absolute Sound*.

But no matter how numerous the sources, no matter how dedicated the effort, a big question still looms as large as ever: Just how good is the end product? Well, I can tell you right now that as far as the initial Classic Records releases are concerned, we can breathe very easy—their first salvo is resoundingly successful. So much so that I consider them to be some of the most remarkable LPs that I've ever heard.

I reached these conclusions at a very exciting listening session at Hobson's Ultimate Sound, Mike Hobson's audio salon in the Tribeca section of NYC. Mike came up with his test pressings of LSC 1806, LSC 1817, and LSC 1934 (the first three Classic Records releases) and a copy of the MFSL Muddy Waters LP, while I brought along Dave Wilson's Feast.

Because Mike only handles a very select number of product lines, any system at Hobson's Ultimate Sound will consist of Rowland electronics, Avalon speakers, Basis turntables, Cardas cables, and a few other assorted goodies. For this session the stylus gracing the grooves belonged to a Clavis cartridge, held in place by an SME V tonearm on a Basis "Gold Standard Debut" turntable. The Rowland Consummate phono and line stages fed a Model 8 power amp, also Rowland, which in turn exercised a pair of Avalon Radians. All cabling was by Cardas.

Visiting Mike is nothing new for me. I find his salon a wonderful oasis. Every visit there has left me refreshed. The atmosphere is always friendly, the music

he chooses is wonderful, and the audio gossip we exchange is a lot of laughs. My main reason for going to Hobson's this time was Mike's record collection. He assured me that he could come up with every one of the renowned original Shaded Dog copies—right down to the most desirable pressings—from his collection of tens of thousands LPs. I certainly did not have any semblance of such a treasure myself, and the appraisal could only be meaningful if the test pressings of the reissues were compared to the originals. It didn't hurt that Mike volunteered to do all the tedious work necessary to carry out the evaluation like cleaning all LPs on a VPI record cleaner and optimizing the VTA for each record played.

As far as I'm concerned the results were extremely gratifying. As in thrilling and exciting. As good as the originals were, the reissues were better-and better in just about every sonic aspect with which audiophiles are generally concerned. Transparency, presence, space, air, resolution, tonality, dynamics, detail and other coveted characteristics were in superior evidence on the reissues. In short, more of the wonderful intricacies of these legendary performances were revealed. What I heard was very obviously a significant contribution to the development of the long playing record. Very few people will ever hear the actual master tapes, but with the Classic Records reissues, all audiophiles will get much closer to what was captured decades ago.

My gushing is not reserved for Classic Records only: This same listening session also revealed the excellent job Dave Wilson has done with the *Belshazaar's Feast* reissue. As I explained in the last issue, Dave has the rights to 125 titles from the EMI master tape vaults, the *Feast* being the first of the EMI AGAT series from Wilson. My basic impression was the same—the Wilson version easily outplayed the EMI original that Mike Hobson had in his collection. Ditto for the MFSL GAIN version of *Folk Singer*. I

had hoped to report on more MFSL LPs, but at press time I had not received any other titles. I'll try to have more to report for the next issue.

Recently I again stopped by Hobson's Ultimate Sound and Mike treated me to a sampling of some of the test pressings of the Decca RCAs. I first heard Night On Bald Mountain from LSC-2225 with The New Symphony Orchestra of London, Alexander Gibson conducting, followed by the Nutcracker Suite with The Royal Opera House Orchestra, conducted by Ernest Ansermet. The collectors out there will know that the Nutcracker originally appeared in a beautiful hardcover jacket with well-executed liner notes in a near book form. As it stands now, Classic Records will supply the two LPs in a fan-fold cover, with the book of notes bound inside.

With both of us having time limitations, no comparisons with the originals were done. What I heard was even more remarkable than before. Here even more dynamic range was revealed while maintaining all the marvelously musical attributes for which RCA is known. As wonderful and exciting as the Classic RCAs are, these Decca RCAs are truly special.

That evening Mike also had on hand a couple of test pressings from the next set of RCA releases. I heard the famous LSC 1900 Symphony Fantastique recorded in 1955 by the BSO under Munch. Recorded in stereo but originally released only in mono, Classic Records will finally have the stereo version available. That original two-track tape was so revolutionary that no stereo cutter heads were available to handle the stereo information of the tape. Later RCA had intended to release it as a stereo LP but



never got around to it. It is noteworthy that Classic Records was able to dig up the original "slick" of the cover intended for the stereo release, and will of course use it for their cover.

As if the Fantastique was not enough, Mike "forced" me to listen to the Pictures at an Exhibition test pressing. That's the LSC 2201 with Reiner and the CSO. The truth is this was one evening I did not want to end—by now I was glued in my listening position, completely content to go on and on. What I heard leads me to believe that Classic Records and Bernie Grundman are learning more about the RCA master tapes as they go along, since this latest test pressing contains an even greater wealth of information: The dynamics, detail, timbre, and overall intensity of the music were more impres-

sive than ever. I heard an assertiveness that added to the listening experience and boosted the enjoyment of the presentation. I was ever so much closer to the music.

I'm overjoyed that these current vinyl ventures are so successful. My hat's off to all involved. I find it difficult to believe that future generations will look at present day recordings with the same sense of awe that these recordings of yore inspire. We should consider ourselves very fortunate that these exquisitely executed treasures are available to us now, allowing us to travel back in time and enjoy the music these great artists intended us to hear. And you know what the best part is? There's so much more to come.

CORNERSTONES

Ernest Ansermet on "Blue Back" Open Reel Tapes

Wally Chinitz

In 1947, at the invitation of Arturo Toscanini, Ernest Ansermet began a fourweek engagement with the NBC Symphony. Ansermet greatly admired Toscanini and, at times, claimed an adherence to Toscanini's self-professed interpretive literalism. For example, Ansermet once told an interviewer, "All the conductor can do is present the composer's ideas as accurately as possible."

It was clear, however, that Ansermet was ambivalent on this issue. As a case in point, in the final pages of Debussy's *Iberia* he reinforced the trombone glissandi (a sliding, continuous movement from one note to the next) with horns, justifying his emendation with the re-

mark, "I cannot believe that accuracy is more important than good sense."

The issue of textual fidelity is probably a 20th century phenomenon; music listeners of past centuries expected performers to infuse the music with something of their own sensibilities and emotions. However, this practice, contrary to popular belief, generally did not result in grotesque distortions of the composer's intentions. For example, piano playing in the 19th century tradition, as Harold C. Schoenberg pointed out, implied "beauty of sound, complete intellectual control of line and form, an unlabored, natural sounding virtuosity, and an elegant and restrained interpretive approach more usually thought of as classical."

Both Hyperion Knight (The Absolute Sound, Issue 67, September/October 1990) and Donal Henahan in The New York Times bemoan the loss of "subjective" interpretation in music performance. Henahan probably comes close to the mark when he attributes today's interpretive sterility to audience preferences. I would go a step further to note that this preference for sterility and homogeneity under the guise of "fidelity to the composer's intentions" paralleled the general decline in public taste. This would require, at the very least, a doctoral thesis to "prove" and, in any event, would be difficult to quantify. I believe, however, that few dispassionate observers would hesitate to agree that the decline is eminently apparent.

By way of rolling out the heavy artillery to support my thesis, I am looking as I write at one of the (lamentably) last comic strips Berke Breathed produced under the "Bloom County" banner. Opus and Milo Bloom are in a video store deciding upon the evening's viewing fare. Opus presses for To Kill a Mockingbird ("A story of compassion and self-discovery . . . ") while Milo opts for Nun-Munchers from Hell, Part 14 ("Mutant Monks and mayhem from the 1988 best seller. . . . Heads go flying everywhere.") In the last panel, the two are heading home with Nun-Munchers ("Comes with a barf bag," notes Milo) while Opus, looking at us, remarks, "Who am I to resist the forward progress of American culture?"

This lengthy digression was intended to lay the groundwork for my strong belief that Ernest Ansermet falls firmly in the "subjective" camp, and that the current relative neglect of his work results from the factors discussed above. Listeners would do well to bypass the latest, most recent, newest, hot-off-the-press recordings by most of today's "wunderkinds" (young and old), and seek out the recordings of the giants of the relatively recent past. This means not only Reiner and Munch on Shaded Dogs and Dorati and

Paray on Mercury Living Presence, but other brilliant artists like Ansermet— whether or not their work was issued on record labels currently regarded as "hot." In Ansermet's case, of course, "Blue Backs" have long been regarded as prime collector's material. Here, we look at three "Blue Back" open reels, two of which are double-play tapes, containing the equivalent of two records.

LCK-80052, one of the double tapes, contains Beethoven's Sixth (Pastoral) and Seventh Symphonies. The first movement of the Sixth is my least favorite here. Ansermet too often buries the main line with subsidiary figures, and climaxes tend to be too fierce. This is, after all, Beethovian nature-painting carrying the title "Awakening of happy feelings on arriving in the country." Beginning with the second movement, however, Ansermet's reading is on a par with the best available. The second movement is warm and genial in feeling, with a perfect rendering of the pizzicati in the lower strings to convey the picture of a gently flowing brook. The third movement is a real prize, alternating between bucolic revelry and gentleness, with great understanding and compassion. Beethoven's little joke with the sleepy bassoonist in the Trio is made hilariously effective by the simple device of underplaying it. The bass is powerfully projected in this movement and makes an enormous impact.

Ansermet tries to work up the requisite lather in the stormy fourth movement, but is defeated by the engineers who engage in some reprehensible gain riding here. As a result, the music never really gets loud; hence, it is never really frightening. Some may regard the last movement as a bit hectic, preferring a more relaxed mood, but Ansermet makes a persuasive case for his exhilarating tempo, and the Suisse Romande plays superbly.

The sound comes very close to audiophile perfection. A precise rendering of

14

World Radio Histor

the soundstage is thrown, along with lots of warm hall ambience. As suggested above, the entire bass range is beautifully and tightly projected, and the string sound in general is smooth and tonally right. Despite the minor quibbles above, this is a real winner and, by itself, ought to be sufficient to justify Ansermet's claim to a wide range of musical sympathies beyond the French Impressionists, Spanish-flavored pieces and Stravinsky.

To clinch the case, however, the version of the Seventh on the overside is sufficiently superb to change the mind of any remaining skeptics. After an Introduction I felt to be marginally too fast, the remainder of the first movement is beautifully gauged. To emphasize the dance rhythms, Ansermet has the Suisse Romande violins play subtle (unmarked) swells that sound absolutely right. Another highlight occurs in the coda, where Ansermet imparts an overlay of menace to the proceedings by bringing up the bass and having Beethoven's melodic fragments puncture the prevailing gloom like rays of sunlight.

The second movement is another gem. Ansermet immediately establishes a firm, march-like rhythm. A brilliant touch occurs when the principal melody and a counter-melody work their way through the strings. Ansermet understood that there are times when the counter-theme is the more important, and he brings it to the foreground at precisely the right moments.

In the Scherzo—which is repeated by Ansermet (an uncommon touch that works well here)—the band plays with tremendous virtuosity. The Trio provides the requisite contrast by virtue of its expansiveness, and even the multiforte trumpets do not drown out the melody in the strings (an authentic miracle). I know of no conductor among the current crop who get this right. The last movement generates considerable excite-

ment owing to the prominence of the kettledrum and Ansermet's urgently pressing the movement forward.

This recording's sonic qualities mirror those in the *Pastoral*. Bass is again solid, tonalities are true and a palpable sense of the hall is present. My only reservation concerns the kettledrum, which sounds slightly tubby.

I may as well say straight away that LCI 80079, containing Falla's The Three-Cornered Hat and the Arbos orchestral arrangements of Albeniz's Iberia, is one of my all-time favorite recordings. It is difficult to see how it could be bettered. Ansermet's absolute rhythmic rightness, which shone particularly brightly in Spanish music, works to perfection. Take, for example, the Falla music, which heaves and swells with a pulse that eludes even the wonderful Ataulfo Argenta (London CS 6050). Yet textures are always transparent, and Ansermet's ability to paint pictures in sound graphically conveys both the action and the humor in the music.

Again, although Ansermet is slightly faster in many sections than most (including Argenta), one quickly becomes convinced he is "right" because it sounds right. I recall having this discussion with Sam Burstein some years ago, taking to task some reviewers who had bad-mouthed a recording of a chestnut because it failed to sound like every other version of the work. I said something like this to Sam: "Listen to it and see if it doesn't thrill you because the conductor has re-thought the piece, infused it with fresh ideas, and made it sound right—like a previously undiscovered masterpiece, rather than simply more detritus." (After hearing it, he agreed; otherwise I would not be telling this tale.) So it is here!

Teresa Berganza does the vocals voluptuously. Listeners should note how, in the "Final Dance," Ansermet whips up tremendous excitement by dynamic gradations alone, rather than by speeding up the tempo.

Except for a hint of rawness in the violins and a slightly truncated soundstage (left-to-right), the sound again borders on perfection. The same can be said of *Iberia* on the overside, which features sweeter violin tone and a more atmospheric ambience. The celli are especially luscious in tone and occupy a realistic volume within the stage.

The performance sounds completely authentic; from the magic of "Evocation" to the bustle of "The Harbor." In the latter, where timing becomes tricky and is frequently bungled even on recordings, Ansermet and his forces manage it with great precision. In the middle sections the pinpoint dynamic control Ansermet brings to "Sevilla" should be noted, as well as the unflagging rhyth-

mic drive, and superb handling of the tricky rhythms of "Triana."

Last for this outing, but far from least, is LCL 80084, featuring Stravinsky's Les Noces and Symphony of Psalms. The Symphony is one of my favorite works, both for its ethereal beauty and for the brilliance of its construction. It is laced with a marvelous contrapuntal texture and gorgeous harmonies. Take, for example, the modal harmonies of the first psalm, the double fugue in the second, and the driving staccato rhythms of the third psalm, which is framed by the chorus intoning the word "Alleluia" in heavenly harmonies.

Ansermet, the Suisse Romande Orchestra and the choruses perform it with a passion, intensity and devotional fervor that more than match the composer's own (Columbia MS 6548). In general, the sonics are superior as well, with a wide,

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deep soundstage (choruses placed in front of the orchestra) and superb bass underpinning. My sole reservation concerns a thickening of orchestral textures in heavily scored passages, which tends to obscure important contrapuntal lines. In Stravinsky's version, a textural leanness ensures that all the lines can be heard. In every other way, the Ansermet is sonically superior.

Ansermet's reading of Les Noces ("The Wedding") also competes with one conducted by the composer (Columbia MS 6372). Stravinsky has described it "as a collection of cliches and quotations of typical wedding sayings (which) might be compared to one of those scenes in (Joyce's) *Ulysses* in which the reader seems to be overhearing scraps of conversation without the connecting thread of discourse." It is a cantata for four solo voices, mixed chorus, four pianos and percussion. The music is both touching and funny, and will fail if rendered in burlesque fashion. Neither Stravinsky nor Ansermet, of course, are guilty of this; both performances are superb. Ansermet's forces sound more controlled, and since his soloists do not lapse into

an operatic style, the piece comes closer to what I believe was intended—a peasant wedding. Ansermet also inflects the music more subtly, rather than hammering out the rhythms. In the end, I find his version more moving, more touching and funnier.

The sound from this tape is, as one would expect, far superior to that on the composer's Columbia disk. The placement of soloists (up front) is precise, the percussion focused beautifully, and there is plenty of atmosphere. The pianos seem to have been located a goodly distance from the microphones, so they are not always as clear as one might like.

Perhaps Ansermet's time is at hand. Japanese-made "Super Analogue" pressings of a number of his recordings have been released that will hopefully introduce his work to a new generation of music lovers. I would like to think so. The pendulum has swung very far and it is hard to imagine it has much further to go before a cultural renascence occurs. To mix metaphors: There is no place to go but up.

The Joy of Tweaking

Steve Guttenberg

You thought you'd seen them all: Shun Mook, Goldmund Cones, Ceramic Iso-Pods, Harmonix Cones and Feet, and of course, Tiptoes. Steve McCormack started the audiophile foot stampede with the invention (discovery?) of the Tiptoe. Common sense skepticism was replaced by audiophile delight; the pointy little devils really worked. Sure, some balked at spending \$7 (?!!) for an aluminum cone, but they were soon joined by much more costly competitors. An opposite camp emerged and swore by soft, mushy feet—Sorbothane and Navcom primarily. To vastly oversim-

plify: The hard, pointy group listens for greater detail, tighter bass and increased air. The softie brigade promises a sweeter and more mellow sound.

A DIFFERENT KIND OF FOOT

Q Dampers are made by a company called A.R.T. and come to us from Italy; they really don't belong in either of the above categories. Q Dampers are graphite bricks (1 3/4" x 1 3/4" x 5/8") with a brass insert on the top. The brass tops invite the use of Tip-Toe-type devices to be used in conjunction with the Q Dampers. Joe Cohen from Virtual Audio, A.R.T.'s U.S. distributor (415-898-8067),

sent me six sets of 4 (\$110 for each set) to try out. I decided to introduce them into my system slowly, starting with three Q Dampers under pre and power amps. I was immediately impressed.

I've been LP bingeing lately (Princeton Record Exchange in Princeton, NJ—my favorite) and was lucky enough to discover a real treasure: Andre Previn and J. I. Johnson Play Kurt Weill (Columbia CL 1741), which is just wonderful. The disc resided on my Roksan Xerxes for a solid week. My copy is mono, which I usually find a little boring. With the Q Dampers in place under my phono pre-amp (ARC PH-1) the depth and space revealed in this recording made mono sound much more interesting to me. I spent a whole afternoon listening to my mono record collection, with and without the Q Dampers in place. The Q Dampers consistently improved bass definition—the "woodiness" of acoustic bass particularly benefited from the use of Q Damp-

Next up was the Roksan itself. For the Roksan/Q Dampers Test I used a Chesky recording that I had worked on, Sara K's Play on Words (JR105). Using the track "I Could Sing Your Blues," the Q Dampers correctly decoded the spatial location of Bill Mobley's trumpet, 10' back from the main mike. So what I'm saying here is that the Q Dampers were allowing me to hear into the recording, revealing information that I know is there—not creating, revealing. I wound up using the Q Dampers with my turntable, pre- and power amps, D/A and phono preamp.

While experimenting with the Q Dampers, I received a few sets of Audio Points (\$88 for 4 tall points; \$50 for 3 short points) from Michael Green's Ultra Systems (215-297-0227). Just what we need—more Tiptoes. They scream "audio jewelry"—machined brass sculptures that look like no other isolation devices. Quite beautiful. I used them alone and with the Q Dampers. There is defi-

nitely a synergistic match between these two. The Audio Points by themselves are very good—improving image width and depth over the other pointy devices I had on hand. But when used in tandem with the Q Dampers . . . magic! For example, listening to the Doors' "Riders on the Storm" (L.A. Woman, DCC GZS 1034), the rain and thunder were so real I was afraid of getting the equipment drenched by the downpour! The thunder went all the way back. Scary.

To recap: A.R.T. Q Dampers, alone or used with Ultra Systems' Audio Points, significantly improved spatial detail, bass texture, and low level detail. Highly Recommended.

INTERFERENCE

Speaking of analog, be sure to keep your CD player, D/A, and transport turned off when you're seriously listening to records. The RFI fields they radiate will contaminate the high-gain stage of your phono pre-amp. Power line conditioners will reduce AC contamination, but RFI will still be a concern. Give it a try.

ELECTROSTATIC SPEAKERS

I love my Quad 63s. In fact, I can't imagine my audiophile life without them. As tweaky as I can be, the Quads are stock except for Tiffany binding posts and Cardas power cords. But there were two things that bothered me: that 1/4 amp AC fuse and the on/off switch. Great, you have an audiophile AC power cord—but next in line is this horrible 1/4 amp fuse inside an iffy fuse holder, and the on/off switch is completely unnecessary—if you want to "turn off" the speakers, unplug them.

I took the plunge and, with help from my friend Todd, hardwired the Cardas power cord directly to the transformer. I felt better. The Quads never sounded better—much less grit, grunge, haze, and a touch fuller in the bass; depth also improved. So, my electrostatic friends, check it out. Wave bye-bye to warranties, and be careful! Very high voltages are lurking inside these speakers. So if you don't know what you're doing, stay out! For those of you handy with a soldering iron, hardwiring is always a good idea—just not very practical. Electrostatic speakers are the exception to that rule.

WORKING FOR THE CLAMPDOWN

It's an RFI jungle out there. I believe that one of the main culprits in the variability of the sound of one's system is RFI (Radio Frequency Interference). It seems that some RFI days, and nights, are worse than others. Radio Shack has again come to our rescue, offering a ferrite clamp (cat. #273-104) that reminds me of . . . Legos! They're rectangular and can snap together. The possibilities are endless. In the past I've had mixed results with ferrite clamps, but these ba-

bies do the job. I tried them first on the speaker inputs to the Quads. Center image focus went up a couple of notches. An \$8 improvement that could equal the kind of difference that a \$500 cable could make. Please don't misunderstand my intentions—I believe in cables; I use Cardas Golden 5C throughout my system. But whatever the state of your system, these inexpensive tweaks should be investigated along the way.

One of the primary CDs I used during these tests was the harmonia mundi HMC905184 *Récital de Harpe*, a radiant recording. As I added clamps, first to the power cable on my amp and finally to the power cords to the Quads, the harp grew sweeter—more palpable. The session ended when I swore I could see a halo over the harpist's head.

Keep on tweakin'!

The Sick High-End

Mark Block

any audiophiles sense there's **V**something wrong with the highend these days. Jack English wrote a well thought out piece about it in a recent Stereophile. David Nemzer talked about high-end malaise in our last issue. The subject comes up several times a year at Audio Society meetings. We complain about the exorbitant prices. We remark on how few Generation Xers (known until recently as the MTV Generation) seem interested in joining the hobby. We bemoan the growth of audio/video equipment at the expense of audio-only systems. We penitently lash ourselves over our failure to spread the high-end gospel to the heathens worshipping in the Radio Shack temple. Let me now take off my reviewer's ears and put on the prophet's robes: Let me tell you why the

high-end is sick, and what I think can be done to revive it.

Let's start with the easy stuff. One of the biggest reasons for the depression in high-end audio is "Far East" pricing. Manufacturers can sell a large share of their product overseas at prices so inflated that the middle class American consumer is effectively eliminated. The irony here is that what keeps American high-end manufacturers in business these days is exactly what keeps American buyers away. I can't completely blame the manufacturers, however. Why spend R&D time on ways to cut product costs when you can easily export the more profitable cost-no-object gear?

Many of the best audio reviewers compound the problem by primarily reviewing the expensive, sexy stuff—which they audition for free, keep for extended periods, and buy (when forced) at dealer cost. This expensive fantasy world spins ever more out of control. Decent, honest budget products are criticized for not measuring up to the unaffordable best. Small wonder the average audiophile loses interest: The mouth-watering toys are way beyond affordability, and the affordable ones don't seem so desirable after the reviews come in. I remember ten years ago when the top of the line Krell monoblocks were expensive but within reach if I stretched my budget (I did). The best electronics nowadays—even less than the best—are so far out of reach I think of them as mere curiosities (glorious curiosities, but curiosities nonetheless).

At the core of the high-end philosophy is a desire to push the frontiers, to come ever closer to perfection, to play back the undiluted musical truth—costs be damned! That urge—to take design concepts to the limits and beyond—is the heart and soul of high-end audio. But the cutting edge is a double-edged sword: The preponderance of cost-no-object products (and reviews of them) is killing the industry. The way I see it, the very thing that makes the high-end tick is what could eventually destroy it.

Prices began skyrocketing during the gogo '80s, a time when we DINKs (Double Income, No Kids) speculated everything—particularly real estate—up into the depleted ozonosphere. We took out fat mortgages, leased fancy cars and bought wild stereos we couldn't afford couldn't afford, that is, without two incomes and unreasonable expectations about the future. Now we're worried about our jobs, our salaries are stagnant, we have kids, and we're screwed. Hello illegal nanny, good-by public office. And good-by state-of-the art equipment. Maybe we can afford one big purchase every couple of years. Enough to keep high-end alive but not well.

News flash: Contrary to what manufacturers imagine, audiophiles are not rich.

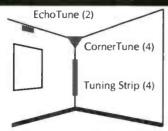
The kind of person who becomes an obsessive/compulsive music or equipment lover is not the kind of driven, aggressive individual who is likely to make lots of money. Members of The Audiophile Society, for example, come from a cross-section of American society, not exclusivley its upper crust.

THE PATIENT IS OUT OF IT

The other problem with high-end audio is that it just doesn't fit the lifestyles of 999 out of a thousand people. Whenever an audio neophyte friend asks me for shopping advice, I first ask them how they listen to music. If the primary purpose of their stereo system is playing background music, I tell them I can't help; the hi-fi components I would recommend are those that demand one's undivided attention. Here's how I ask the question: Are there times when you want to sit in a comfortable chair in front of the speakers and just listen to the music without a lot of visual distractions? The answer I always get is: "Mmmm, not really." These people do not want a high-end system at any price; they want cheap background music for working, reading, driving, and partying. At best, they want something they can hook their TV up to. Why recommend equipment that does not fit their needs?

Related to this problem is the fact that high-end systems need careful room matching and painstaking set-up. Not many people can find a place for a good system. When my wife and I were house hunting about five years ago, the main thing on my agenda was, needless to say, a large den suitable for listening to big speakers (placed away from the walls, of course). This one criterion eliminated four out of five houses. In some houses the family rooms were too small; in other houses the architectural realities (hallways, windows, fireplaces, columns, L-shapes, etc.) clearly prevented proper speaker placement. It's a truism that the room is the most important audio component, and most houses sim-

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ply don't have a den suited to true highend sound.

I'm not saying that a good, budgetpriced high-end rig wouldn't be better than a Tandy rack special even in lessthan-ideal surroundings. Of course it would, but the fact is, most people don't want a high-end system at any price; the large size, the lack of convenience and the set-up hassles more than outweigh the one advantage of a high-end sound system—beautiful sound.

My non-audiophile friends who shop for stereos always say they want great sound, but they usually have no concept of it. What they really want is affirmation; they want to believe they've made the right choice even when it was made out of complete ignorance. It's like wine: People know they're supposed to serve good wine to guests, but when I'm offered a "White" Zinfandel and the host says "This is supposed to be pretty good," what can I say? Unless I feel close enough to the host that my honesty would not be mistaken for rudeness, I respond, "Thanks, I'll try it," while thinking, "How can you drink this sweet, bubbly travesty of a noble grape?" Likewise, when a friend says, "I have this 15 year old Sansui receiver—it's a real good one, a classic—and I want to get some new speakers," I act polite and do what I can.

OFF THE DEEP END

We've talked about the heart of highend, but it has a head too, and maybe it needs to be examined. The high-end lives by a philosophy I call "Sonic Subjectivism," which might be defined as "Sound precedes signal." In other words, listening takes priority over testing; measurements are an adjunct to listening, not the other way around.

I personally believe in this philosophy, but some of its disciples have caused the high-end to be seen as a laughingstock in the press and in the consciousness of the public (if they have a consciousness of high-end at all). Stories about highend audio in the mainstream media never fail to mention how weird and obsessive we are—right before the reader gets hit with the insane prices we pay. To the average hi-fi consumer, the "golden ears" guys seem to be tweaky flakes who neurotically buy magic bricks and magic dots and magic nonsense of all kinds. Ours is seen as a hobby akin to homeopathic medicine, divining rods, astrology and alien abductions. Why? Because the connections to science, to technology and to everyday experience have seemingly been severed.

Of course, there are numerous examples of weird, tweaky things that turn out to demonstrably improve sound—spikes, Tip Toes and sand filled platforms spring (if I can use that word in this context) readily to mind. Yet in our haste to embrace Sonic Subjectivism we have steadfastly refused to recognize the existence of a placebo effect; thus, our subjective findings often lose touch with reality and enter the land of pathological science. There's no easy answer to this dilemma. I could make a list of the things I consider placebos (Belt foils, Shun Mook pucks on the floor, green pens for CDs) but part of the fun of this hobby is trying that stuff out to see if it works—and arguing about it with your friends.

Again the irony: What makes the hobby interesting to most of us is one of the things that keeps it from enjoying mass appeal. Does high-end's head need shrinking? Sometimes I think we need sort of a slap upside the noggin to make us tone down some of our wilder subjectivism, but eliminating the tweaky stuff would be less a slap than a lobotomy—the personality and character would be gone. The question, then, is this: If the high-end changes enough to encourage a broader appeal, would it still be the high-end? Perhaps one of the famous Vietnam era absurdities applies: Do we

have to destroy the village in order to save it?

WHAT'S A MOTHER TO DO?

The raison d'etre of high-end is uncompromised sound—but almost everything else is compromised. Audiophiles usually own systems with expensive components that are too big, too fussy, too complex, and just too plain wacky to be used in 99 out of 100 American living rooms. And that's...OK. (Chris Johnson of Sonic Frontiers calls this the "Harley-Davidson" design approach: If it doesn't work, make it bigger!) But if the high-end is to survive and prosper we must accept the need to expand its definition to include some products that cross over into the mainstream.

I make that last statement with some reluctance but much consideration. Manufacturers must come up with products that broaden their customer base and introduce younger people, family people (maybe even female people) to the joys of high quality music reproduction. Sonics must still be a priority, but not necessarily the be-all and end-all. Look at Monster Cable: Noel Lee's marketing brilliance took a tweak product and made it mass market. It can be done. The idea is not to water down the purity of high-end, but to give a taste of high-end sound to the masses, to imbed high-end brand names in the consumer's consciousness, and to convince the public that high-end sound is something desirable rather than laughable.

I was thinking today of the way American tastes in automobiles were transformed between 1975 and 1985. Oil shortages forced Americans into Japanese cars, and we learned that family cars could combine nimble handling with solid, reliable construction. Big, ungainly, unreliable American cars lost favor; Detroit eventually changed its ways because the public's expectations had risen significantly. Acura, Lexus and Infiniti even forced us to change our expec-

tations of what we expect from a dealer. The same thing can happen in audio (even without something like an energy crisis)—only this time we can turn the tables on the Japanese, who are in the position of making lousy products that people want because they don't realize there's something better out there.

So, without further ado, here's my prescription for curing what ails us:

- 1. Cut costs, cut costs, cut costs. Judging by the Winter CES, some manufacturers recognize the problem and are doing something about it. Case in point: Ed Meitner redesigned his IDAT digital processor using LSI chips instead of discrete circuits. Reportedly, the price will be cut from \$14,000 to \$2000 with supposedly no sacrifice in sound quality. If this is true, Ed Meitner is god!
- 2. Don't turn away from the video and computer revolution. Video surround systems are great—they force people to get their speakers out of the corners or out from behind couches and place them symmetrically on either side of the TV. This is the greatest single improvement most people can make in their sound systems. With a video surround system properly installed, the average Joe can sit in front of his TV and hear a semblance of stereo for the first time in his life.

The drawback to a surround system is cost. If people aren't willing to spend enough money to buy two channels of high-end sound, they certainly won't want to pay for six! Which is why it's imperative for high-end companies to jump into this arena ASAP with reasonably priced systems that sound better than the mass-market competition.

It seems our attention spans grow shorter every year, and the younger you are, the more impatient you're likely to be with communications media that don't give good visuals. Remember, in the thirties and forties families used to cluster around the radio for an evening of entertainment. That doesn't happen anymore; radio, for the most part, is background sound for driving. Audio-only recorded media will, sooner rather than later, be the same. Recorded entertainment for the home will mean pictures and sound together. That's progress, and that's good . . . or, at least, that's life, so let's do something about it.

Even hotter than video systems in the consumer electronics marketplace are computers, not to mention video games—computers and video combined! Have you ever noticed that in polite, mixed (male/female) cocktail party conversation it's now acceptable to talk about computers? It used to be that movies and TV shows were the safest subjects, with car-buying stories allowed it the guy/girl ratio leaned toward the macho. Now many women are either using, buying, or thinking about buying computers. It's a subject that's replaced hi-fi BS even among some audiophiles. As people become more and more computer literate, high-end companies should start thinking about computer control for audio/video systems. In the future, speaker crossovers, DSP room correction, input/output switching, and CD jukebox selection (from your personal music library database) will all be functions of software on a PC.

Don't give up on multi-room systems. When many people think of spending a lot of money on a hi-fi, they think of spending it on an integrated multiroom system. I got a flier in the mail recently from Vaux Electronics announcing the Aris MediaMation System, which is a remote controlled audio/video routing switcher for the home. The hand-held or wall mounted control panels can operate up to six stereo systems using RF signals, and can also control appliances, lights, air conditioning, security systems, etc. I know this kind of thing is an anathema to the high-end, but I see it as a logical adjunct to a high-end audio/video system. It

also a logical thing for the kind of computer control mentioned above.

OK, in-wall speakers and multi-channel amplifiers are usually awful, but the dealer who installs some hidden speakers in the bedroom and kitchen can at the same time talk the customer into some big, floor standing jobs for the living room or den. A THX amplifier (or something similar) could be used either for 6 channels of movie sound or multiroom audio. And while the dealer's at it, he can give some set-up advice—maybe even helping with a little room re-arrangement.

4. Offer products that are smaller, more convenient and better looking. There will always be a die-hard market for big bruiser tube and class A power amps, but the industry has to make products at all price levels that are attractive and convenient. Make some electronics that are stackable and controlled by a single, full-function remote. No excuses for cheap, ugly faceplates, even on good-sounding budget stuff. "Integration" should be a key word. Forget about a snake den of expensive cables adding cost and complexity. Keep it simple for the average guy.

The reason I said "at all price levels" is that entry-level consumers *need* the convenience and attractive appearance to help them commit to paying a little extra-but likewise, doctors, lawyers and others with money to throw around don't want to deal with big, ugly monsters in their otherwise attractive dens. Without an alternative to high-end systems that are large and complex, many will be turned off; they'll just spend their money elsewhere. Once turned on to high-end, however, they'll come back for more—and some may eventually make room in their lives for Krells and Rowlands and Apogee Grands.

5. A pox on snobby dealers. When I go to my Infiniti dealer for simple maintenance on my *under* 20 grand G20, I al-

ways feel like they've mistaken me for an important customer with a fleet of Q45s. When I used to take my old car in for fixing, I got the feeling that I'd been mistaken for a big jerk with deep pockets. Like bad car salesmen, too many high-end dealers divide up consumers into two groups: jerks who won't ever buy anything and jerks with deep pockets. My message to dealers: Contrary to what you might think, high-end audio customers do not come into your store looking for abuse. I have at least a dozen friends who have gone into audio salons fully intending to buy something, but instead got turned off; they usually ended up buying crap from the nearest discounter. There *are* good dealers out there. I've met them. I only wish there were more. (Read Vanessa Vyvyanne du Pré's excellent article about rude dealers in issue 95 of The Absolute Sound.)

6. Reviewers: Get real. Stop the endless chasing after (and drooling over) the sexy, outrageous stuff. Yes, cost-no-object equipment is important, but the price increases have been ridiculous and ill-timed, coming as they did precisely at a downturn in the American economy. If we want to get readers interested in the hobby again, let's start praising the moderately priced components that deliver great sound. And let's take manufacturers to task for ergonomically poor and aesthetically ugly designs. Force them to make equipment that is both functionally elegant and nice to look at.

Further, reviewers must be more rigorous in their evaluations. Level matching and repeated comparisons are essential if we are to avoid the placebo effect. Simply plugging in a new piece of equipment and then writing up a review a few days or weeks later is a meaningless excercise.

And please, can we stop using live music as the primary reference in equipment evaluations? I'm sorry if I'm stepping on toes here, but when a reviewer starts a paragraph with, "Compared to the absolute sound of live, unamplified music..." I know that what follows is likely to be irrelevant—and possibly misleading. Stereophonic recordings played back through two speakers do not sound like live music, so why should we expect our systems to miraculously alter that inescapable fact? Stereo equipment must strive to be a transparent window between the listener and the recording rather than some hypothetical live event.

A component that makes your favorite recordings sound more like what you hear in your seats at your local concert hall may not do the same for mine—and it certainly won't be a neutral, clear window onto the recording. Experience with the sound of real instruments is, certainly, a sine qua non for reviewers, and the "live" reference is applicable when reviewing recordings, but it doesn't always work when reviewing playback equipment. The methodology is not precise, not accurate, and not helpful. It leads to results that are wholly subjective, impossible to repeat, and experimentally non-falsifiable. In other words, it leads to flaky reviews—and bad sounding systems put together based on those flaky reviews. That's a big reason people get turned off by the high-end: uninvolving sound produced by expensive, supposedly great components.

Instead, reviewers should spend more time describing design goals, more time evaluating ergonomics, more time analyzing system matching, more time comparing the sound of one component to another, more time characterizing what a component does to the sound of familiar recordings, and less time doing that flowery "live music" navel contemplation.

7. Change the marketing strategy. Promote the high-end as high-tech. Why is a Mercedes automobile a status symbol while a high-end stereo system is not? I've always thought it's because a Mer-

cedes can be parked in the driveway and driven around town where neighbors can see it; a stereo is hidden away from all but close friends. There's got to be more to it than that, however. Besides being expensive and (presumably—I've never owned one) well crafted, the Mercedes is perceived as the epitome of automotive engineering. It confers good judgment on its owner. High-end components must be perceived as more than just expensive, tweaky curiosities. A high-end audio system must bestow upon its owner the mythical seal of good taste and intelligent decision making. The way to do that is to make the components look beautiful while promoting them as better engineered.

The mention of Mercedes reminds me that the imported luxury lines have been hit pretty hard in the last few economically sluggish years—which is why both Merc and BMW are about to release budget-priced models. High-end companies would be wise to follow that strategy. Right now there are too many "Ferraris" in the high-end marketplace, and not enought G20s, Acura Integras, Mazda Miatas and Mitsubishi/Eagle AWDs. With more and better products at "the low end of the high-end," manufacturers and dealers could then position them in the marketplace the same way Apple is now trying to position their Macintosh computers against PC clones: easy to use; does more; costs less. The "costs less" part will be very difficult, probably unachievable; the other stuff is just a matter of better design.

The Academy for the Advancement of High-End Audio must help in the marketing effort by doing more real PR work. How about holding seminars with architects? What about giving professional decorators a high-end education? Let's get some high-end products featured in ads, movies and TV shows (Jerry Seinfeld definitely needs a good stereo in his apartment). Here's an idea I submit with great reluctance: Take some review products away from reviewers

and give them to architects or decorators instead. If those people could experience the joys of good sound on a daily basis they would certainly spread the word to their clients. I can also imagine a highend company making a deal with an upscale developer; multi-room systems could be built into new homes and apartment buildings.

Stereophile is doing more right now to advance the cause of high-end than the rest of the industry put together. Their hi-fi shows for the public are great, as are the magazine's efforts to attract more readers. We should salute and support Stereophile's undertakings.

A broader market is essential because the traditional market is shrinking—losing out to video and computers. Unit sales have to go up to help prices go down, otherwise the hard-core high-end could fall further into the "collectibles" trap. Like tulip bulbs several centuries ago or classic Ferraris in the last decade, collectibles rise (and eventually fall) on the psychological whim and whimsy of the market. High-end audio components must offer (or at least be perceived as offering) real sonic—and maybe even ergonomic-benefits. Sixty year old Western Electric tube amps are readily sold at high prices in Japan; if that's the future of high-end, then we might as well pull the life-support plug right now.

SICKNESS OR ALTERNATE LIFESTYLE?

Why do people rent VHS tapes when laser discs look so much better? Why do they use DOS and Windows when Mac and O/S2 are out there? Why do they accept bad sound when good high-end products are readily available? That last question is the real toughie, and I hope I've shed some light on it.

The other, deeper question is whether the high-end needs rescuing or is fine the way it is. Maybe it's OK to remain a humble little hobby, catered to by small to medium size companies who understand their limited, niche market. Our own cute club, The Audiophile Society, is made up of a nice bunch of guys. We're wonderful they way we are—why worry about new members? It's not like we're the North American Man/Boy Love Association or anything—why should we assume our hobby is sick?

Why? Because audio is in grave danger of becoming a mere adjunct to video,

and the fact is our brains more readily accept bad sound if it is accompanied by images. If audiophile standards for sound quality aren't appreciated by more people soon, high-end companies will face an ever-shrinking market, and many will whither away in the vast video desert. Spectacular pictures with lousy sound could be our future. Do we care?

The Science Of Beauty: Audio Culture In The Nineties

Herbert E. Reichert

ewind: J.C. and I worked construc-Ttion by day and made art by night. Leaving work, we would retire to our studios and paint. The next day at lunch we would share with each other how it went. I was always a little jealous because in addition to painting, J.C. would go and play his very vintage Telecaster in avant-guard downtown clubs like the Knitting Factory. I was pestered by the feeling that just collecting records and playing them on my "hi-fi" did not honor the musical expression or demonstrate my gratitude for the glorious feelings that music provides. I longed to do more than listen to records and paint.

One night while eating dinner at a friend's house, I was distracted by the beauty of the singing coming from the living room. When I inquired about it, I was told, "It's the radio." Later on, I discovered it was a Marantz Model 10 playing through Quads. For days all I could think of was the beauty of that singing. I became determined to recreate that beauty in my home. I bought books on electronics and acoustics and began to try to understand why this singing had affected me so strongly. The systems I heard at audio salons clearly did not

have this effect. So I began to build my own. Soon I was spending all of my free time drawing schematics and soldering.

J.C. would watch me reading and drawing amp schematics at lunch time and tell me I was going crazy. "All anybody needs is a great tape in the boom box. Forget all that audiophile stuff and spend your money on great tapes." Fast forward. Today, instead of doing construction, J.C. pays his bills designing high-end speakers and single-ended 845 amps.

After listening to Monk and John Zorn at my place, J.C. decided to build a triode amp and a pair of speakers to play his Sony Walkman through. Within weeks, he and I were spending the whole day at work talking "tube talk." Weekly, UPS would be bringing boxes of RCA 45s and 50s directly to the job site. We would be shaking, opening the boxes and holding the tubes up to the light, reveling in the beauty of these globe shaped masterpieces of the 1930s. The rest of the crew would roll their eyes. They would admit, when pressed, that these tubes were beautiful as "industrial art," but they wondered, "How can these dusty old globes outperform modern gear?" When we informed them that

not only could these objects play music, but that they were capable of producing sensations of grace, beauty and excitement on a level beyond today's hi-fi, they began to actively ridicule us. To them we had become "high-fever boys" lost in retro-land.

One particular fellow worker, a carpenter and a fine artist, was especially active in his ridicule of us. Over and over, every day, he kept saying, "It can't be worth it!" It turns out he is an avid music lover with a wide-ranging record collection. Further conversations revealed that he was a BIG George Jones fan, so I invited him over after work to hear some country favorites.

When we got to my studio I asked, "Shall we start with GEORGE?" He gave me a big smile. As I set the tonearm down and turned the volume up I heard, "He said he'd love her till he died . . ." coming from the speakers. When I turned around he had his hands over his face and was shaking his head, muttering, "It's worth it. It's worth it. It's really worth it."

This man quit his job and invested his life savings in a store selling pure triode amps and horn speakers. I know—this sounds like the story of a man joining a cult, not a document of musical catharsis. But the point is this: A simple, inexpensive, five watt record playing system moved people to change the course of their lives! I could tell you many more stories like this, and I could tell you that this was simply the result of using directly heated triodes and horns, but that would be an oversimplification, taking us away from the possibility of discovering what is really going on here. I have been forced to ask myself: What aspects of this reproduced sound elicited the dramatic attitudinal and behavioral changes I observed. You must understand that this type of reaction, this letting out of breath, this surrender to the music, this feeling of finally understanding what reproduced music can do, is not simply an

equipment change, but a profound change of mindset.

Over the last decade, I have listened to most of the big commercial high-end systems (IRS-V, WAMM, Diva, etc.). I have also been exposed to several Japanese style triode/horn systems—setups that usually feature small triode amps driving Onken or Altec horns. The character of these two types of systems could not be more different, and the differences are not in spatial information, detail or tonal balance, but rather in the fundamental character of the musical presentation.

When I asked my Japanese friend what he thought of the WAMMS he had just heard he said, "Giant robots were no fun." Another Japanese friend said, "Too serious." I believe the Japanese prefer a system that "embraces" the listener like a friend or lover. Kando San, designer of the Ongaku, refers to his "deep emotion" upon first hearing music played through silver foil capacitors. This is not the way Americans talk about their hi-fi experiences. When the Japanese discuss the relative merits of audio components they sound like they are talking about orchestra conductors. When Americans talk audio, it sounds like an optician's convention. Americans rarely mention their feelings when telling their friends about an audio component they have heard. What I am suggesting is this: The difference between these two audio cultures is not simply "taste" in hardware selection but a fundamental difference in the sensibility that informs this taste.

An audio system, like a painting or a novel, represents a series of decisions by the "author" to effect the final "work." Each of these decisions has moral, ethical, and technical implications with regard to the final product, and the quality of the novel, painting or audio system—indeed, all of mankind's works—is the sum of these decisions. I dare say we can evaluate the character of an entire culture on the apparent quality of its deci-

sion making. What we regard as a person's taste is really his character. A man and his family and the way they "support" themselves in society are actually a little mini-culture. What importance the making or reproduction of music in the home assumes is a reflection of the nature or quality of this mini-culture—in other words, the result of ethical family decision making.

In Japan, ethics is taught as a subject in the elementary schools, and a person's hobbies and interests are considered more important than what he or she does to earn a living. People are respected as much for their aspirations as their achievements. Fast food chains compete for the most aesthetically beautiful "lunch box." Ferraris, Harley-Davidsons and Western Electric audio systems are collected as masterpieces of industrial art. The Japanese have a firm grasp on the aesthetic of form following function. In the U.S., I am afraid these lofty concepts are only rarely discussed.

I am not trying to suggest that one culture is superior to another [I think you are.—Mark], but rather that a distinctly materialist drift in recent American thinking has pointed product design and consumer taste in a direction where durability, originality and beauty are more liabilities than assets. I would also like to suggest that this has begun to change. By the end of the eighties, high-end audio had become such a vacant form of conspicuous consumption that its lack of aesthetic, philosophical or scientific underpinnings led the dedicated few into building their own.

As a creator, the home builder becomes immediately involved in the aforesaid ethical decision making. How it looks, how durable it is and how much pleasure the audio creation gives are all in the hands of the creator. The most successful home builders find themselves in ongoing engineering and aesthetic dialogues with others of their kind. These dialogues create an audio subculture that

eventually will affect the consumer mainstream.

In Europe and Asia this home builder audio sub-culture is massive and highly developed. In America, during the eighties, our own DIY culture almost died. A small handful of U.S. music lovers, repulsed by the sterile high-end sound of the eighties, began experimenting and looking back historically to discover where audio went wrong. At first this search was an engineering fact finding mission, but it rapidly began to look like all the big pieces of an astonishing audio technology were in place by 1955. What seems to have happened was just as audio was about to become a legitimate branch of engineering/science, the mentality of the consumer and the manufacturer shifted dramatically towards the small and disposable. The effect of this shift has been to replace engineering creativity and an ethics of beauty with marketing and "the bottom line." The first transistor pocket radios set the tone for consumer electronics for the next three decades. The sealed-box loudspeaker and the possibility of light, cool, one-hundred watt amps set the tone for the home hi-fi industry.

The coterie of serious home designers (not the parts changers) had discovered, by the mid-eighties, that there was more to music reproduction in the home than flat in-room response and lifelike soundstaging. They asked the important questions: Is the music thrilling? Does the system convey moods or feelings? Am I filled with awe at the artistry of the composer or conductor? Does listening induce peacefulness and reverie? Can music inspire great joy when played through the system? What range of emotions is the system capable of conveying? In other words, the communication abilities of the music reproducer are the first consideration. In America, we assume that if it were to sound just like live, all the emotional content would be conveyed automatically.

I submit that this is a poor premise to base an entire industry on. There is no law that demonstrates or suggests that a perfect reproduction of the original soundfield would convey any of the original artistic quality of the performance. Additionally, there is no parallel in other media. A photograph is no substitute for a painting. Motion picture film or video will not capture a theatrical production or a sports event. Bronze castings of marble sculpture lose most of the original beauty. What makes us think then that vibrating transducers will communicate artistic quality just because they are almost linear?

What is important here is to remember that the record playing system is a media of its own, like film, paint, or clay. With any artistic media, communication is achieved through the creative use of dynamic contrasts (drama) and profound architecture (form and structure). In this county, the creators have chosen to build audio that emphasizes the mental picture of the performance. Image, depth, transparency, and grain are of high importance to American audiophiles. Alternatively, the Euro/Asian has chosen qualities that emphasize the emotional content. These music lovers design for maximum dynamic contrasts, presence, vividness, and effortlessness.

This visceral approach to audio design, as opposed to the cerebral, allows for a direct experience of quality. Aspects of life such as God and beauty and love are experienced *directly*. No thoughts or measurements are necessary to prove these experiences. Anyone looking at a Ferrari or a Rembrandt will experience its beauty.

I am suggesting that Americans now begin to ask more from a home audio system. Rather than design systems that fool the ear (is it live or . . . ?), let us design systems that move the heart. Let us experience the beauty and profoundness of great compositions directly. A truly wonderful hi-fi will *force* you to become

involved in a great performance even if it is poorly recorded. With these criteria, even very modest audio systems are capable of great beauty and excitement. If we design for imaging, detail and small size, that's what we will get. If we design for dynamics, presence and beauty, we can have that too. However, our emotional response to musical program will be very different on these two types of systems. With this foundation it becomes possible to understand why audiophiles might choose horns and low powered triode amps.

At equal acoustic outputs, as compared to conventional dynamic or electrostatic speakers, horns offer a dramatic increase in dynamic capability, image size and presence. Harmonic distortion is also reduced to levels typically one quarter of direct radiators. In contrast, most direct radiators severely compress dynamic contrasts and reduce image size, creating a "symphony on a table top." These are severe distortions. What is more important, these are distortions that limit the fun and excitement of music. When reproduced music lacks weight and body, when sudden transients fail to startle, when the lead singer is only two feet tall, what's left? Detail? Transparency? Tonal balance?

People often say that most horns "sound like horns," and therefore are disqualified from audiophile consideration. To me a 90% reduction in image size is a gross distortion, but owners of "minimonitors" talk endlessly about imaging. Without weight and body, transients fail to startle and lose most of their emotional power. A system capable of reproducing an enormous soundstage, one that showcases dynamic contrasts, and presents music with realistic presence, weight, and body will never fail to excite and arouse. These are the traits that the triode/horn systems communicate effortlessly. These are traits that stimulate our body and our unconscious mind. These are the qualities I believe must become an American engineering priority

if American audio and home theater are to become the vital and important "minicultures" of our domestic environment. Few families can afford a regular diet of theater and concert tickets. When they can, most working parents are too tired to engage in dressing up, driving, parking, standing in line, etc. Consequently, the importance of these stay-at-home artistic "events" increases.

My experiences lately have shown that the best triode/horn systems can easily exceed the quality of movie theater sound of our childhood memories. We all recall going to see James Bond, 2001, or the spaghetti westerns on a big screen. These are big wonderful memories. I think we all yearn for feelings like that. Live opera is the same, but who gets to go? What I am suggesting is this: The technology already exists to stimulate our hearts, our minds and our bodies nearly as profoundly as the theater and the orchestra hall. What we must do, however, is open our closed, ethnocentric audiophile minds and explore all the technologies available, taking from the old and new as it suits our purpose.

I have mentioned how the dynamic capabilities, low distortion and giant soundstage of horns might contribute to the new "world-style" audio/visual systems, but I have said nothing about where triodes of the directly heated variety fit into this new type of audio. That's because by nature their low power output is at odds with our goals. We are seeking effortlessness and dynamic impact, and for these purposes one can never have too much power! But there is a catch. The existing high power technologies—MOS-FETS, bi-polars, tetrodes and pentodes—all have one thing in common: Without global feedback their distortion, bandwidth and rise time characteristics are severely limited. There are several tricks to reduce or eliminate global negative feedback but

none of these topologies approach the simplicity of the directly heated triode circuits.

Triodes, in addition to being consistent and linear by nature, can have openloop bandwidths in excess of 100 kHz. This is important because bandwidth is inversely proportional to rise time. The most obvious characteristics of directly heated triode amplification are lack of dynamic compression, freedom from confusion, reduction in congestion, and a feeling of purity that enhances the beauty of individual musical lines. All of these traits appear to be related to the triode's ability to be fast and clear with no negative feedback. But they are still very low power. We get a little lucky here because horns are very efficient. It is not surprising that even three decades after the invention of high power tetrodes and beam tubes, and two decades after the invention of solid state power output devices, many American movie theaters are still using triodes to power their sound systems. The reliability, clarity and impact of these triode/horn systems gave theaters like Radio City Music Hall and the Ziegfield no reason to upgrade.

My intent here has not been to revive ancient technology, or to discredit the ingenuousness of contemporary American audio designers, but to revive our sense of consumer and engineering ethics. I believe we have accepted too much advertising hyperbole and engineering dogma, and it is beginning to cost us our musical souls. It's time we stop and reassess our domestic entertainment priorities. If we conclude that musical reproduction in the home is not improving and is in fact becoming sterile and unprovocative, then it is time to ask our audio critics and engineers to subscribe to a higher ethical/aesthetic ideal than the present one, which emphasizes photographic verisimilitude at the expense of emotional verity.

The Domestic Concert Hall

Ralph Glasgal

Ralph Glasgal is a member of The Audiophile Society who enjoys experimenting with psycho acoustic phenomena in his spare time. Ralph holds a masters degree in Electrical Engineering and once designed hi-fi components for Fisher Radio. He holds the patent on the first stereo dimension control, included in the Fisher 400CX, and was responsible for Fisher's short-lived reverberation generating device based on springs. Ralph now runs his own computer networking business, and has no commercial ties to any audio manufacturer, laboratory or consulting group.

The Glasgal Domestic Concert Hall "reviewed" below by Ralph himself cannot be purchased in a store, but the basic tenets of its design can be used in whole or in part to improve the listening room of any devoted audiophile. Ralph and his family were gracious enough to host a meeting of the Audiophile Society in March of this year, and all attendees were mightily impressed by the experience. For a taste of that adventure, read Ross Wagner's short story following Ralph's article.

INTRODUCTION

oordinated listening room/component system designs can make improvements in "you are there" listening quality that far surpass anything present video surround techniques can produce and that are as dramatic as any development in home sound reproduction since the advent of stereo. The Domestic Concert Hall integrated listening room system tested below is now fully perfected and like any other high end component, is ready to be reviewed in the best audiophile tradition. Since the nearest official Audiophile Voice reviewer is not yet ready to move into my house for two or three months, and since I cannot transport the Domestic Concert Hall for testing to his

home (it holds up one side of my house), I am forced to cast modesty (but hopefully, not objectivity) aside, and, courtesy of the Audiophile Society, do this pioneering review of the first full-scale version of the Glasgal Domestic Concert Hall (Model #GDCH -1) myself.

THE GLASGAL DOMESTIC CONCERT HALL

The designer/manufacturer reports that the sample of the Glasgal Domestic Concert Hall supplied for review was researched and custom built at considerable expense to demonstrate once and for all that a truly realistic concert hall, opera-house or recital-hall sound field can be generated in a dedicated home listening room using readily available components and standard mono or two-channel stereo CD or LP sound sources. The manufacturer does require, however, that the hall be devoted solely to this purpose and that its interior decoration be kept completely subservient to the laws of acoustics.

Thanks to the manufacturer's generous hospitality I have been able to live with this latest version of the Domestic Concert Hall for well over a year. I am now convinced that the most important highend component in a classical music reproduction system is really the listening room/system design combination, and that the ultimate audio tweak is how close the room, the electronics and the loudspeakers come to meeting the theoretical design parameters first described in Ralph Glasgal's article "The Domestic Concert Hall," Stereophile, July 1988, and summarized briefly below.

As tested, the GDCH-1 consists of electronic equipment, a custom designed sound absorbing panel, carefully chosen loudspeakers and as large a room as possible—in this case, 35 feet high 30 feet

deep and 28 feet wide, with side and front walls sloping backwards so as to steer any stray sound reflections on a detour to the ceiling and back, a trip of some 60 milliseconds minimum. (Mr. Glasgal assures me that much smaller, unsloped rooms work just as well with a little extra sound absorbing material.) The bottom 12 feet of all 4 vertical walls, including the door, are completely covered with Armstrong 3-inch sound absorbing panels. The floor's carpet and pad are over 2 inches thick, and there is virtually no furniture in the room except a Talwar equipment cabinet and a listening chair. All windows are installed above the 12 foot level.

One could say this is an LTDB (live top, dead bottom) studio. The designer's idea is that one gets the most desirable features of an anechoic chamber at the listening position without the expense or the dark oppressiveness of a full anechoic environment; indeed, no standing waves or high frequency anomalies were audible to this reviewer's ears at the listening seat when running glide tone tests. The volume of the room at 29,400 cubic feet is certainly bigger than it has to be to support the deepest bass notes, and organ presence and weight are indeed impressive. The basic idea of the room is to attenuate or eliminate any sound reflected from the listening-room walls to the listening position. In the GDCH-1 all sound reflections or reverberation originate in the recording, or are audiophile component generated and controlled. The GDCH-1 also works best with loudspeakers that are well focused and that avoid spraying sound in directions that might stimulate audible room reflections.

The real novelties of the GDCH-1 are: The central free standing sound absorbing wall, constructed by RPG to the GDCH-1 manufacturer's specifications; and the use of 8 critically placed loudspeakers, chosen for their radiation pattern. The RPG sound absorbing barrier extends from about one foot directly in

front of the listener's head almost to the line between the two main front speakers. The barrier dimensions are not critical except for the width at the end which should be just a little less than the distance between the ears. The Glasgal barrier is 8 feet high by 10 feet deep, and is notched at the listener's position to provide foot and lap room.

This 8 inch thick wall is absolutely essential in keeping the main front right channel speaker signal from reaching the left ear and vice versa. By preventing this front speaker (intra-aural) crosstalk, one gets a 180 degree stage width along with the depth and clarity of binaural sound—without having to wear earphones or buy special recordings. The wall also eliminates the comb filter effects that distort the sound of mono recordings and centrally located sources. The drawback is that only one person can listen to the GDCH-1 system at a time.

Compared to the Lexicon, Carver or Polk method of eliminating this two speaker intra-aural crosstalk, this GDCH-1 median wall is fully effective in practice as well as theory. Being completely passive, it introduces no distortion, and qualifies as a very effective high-end tweak that anyone can try (use a big pillow or thin mattress against your nose), and this tweak is guaranteed not to damage CDs. For those who wish to use the GDCH-1 in a video system, two thinner panels almost forming a V from the listening position will allow a video screen to be visible by looking forward between the panels. Virtual reality helmets and flat screen TVs are also effective in getting video to the listening position.

The equipment used to audition the GDCH-1 included one pair of Duntech Sovereign 2000 loudspeakers, one pair of Carver AI. IIIs, two pairs of Acoustat 1+1 electrostatic loudspeakers, Versa Dynamics 1.0 turntable with Benz Micro MC-2000 cartridge, PS Audio Lamda CD transport, Wadia 2000 D/A converter, 2 Carver TFM-75 amplifiers, 6 Hafler XL

600 amplifiers, LINN LKI Preamplifier (for LPs only), a JVC XP-A1000 front and rear hall ambience simulator, and a Lexicon CP3 side hall ambience simulator.

The Duntech main front speakers are placed just a bit further apart than the wall is thick—about 2 feet. From the listening position, which is some 12 feet from the plane of the speakers, the speakers subtend an angle of only 5 degrees. In an ordinary listening room there would be no stereo effect at all, but in the GDCH-1 the stage width and depth are extraordinary, stable, and exactly what the recording engineer intended them to be. [That's a pretty big assumption.—ed.] Usually the effect is awesome, with a stage width of 90 degrees or more for opera or orchestral music, and depth easily discernible—this from just two speakers almost directly in front of the listener, separated only by an eight-inch wide wall.

This image improvement comes from the fact that the angle of the speakers to the listeners in the GDCH-1 configuration not only allows frontal sound to impinge on the ear pinna from the front, but also closely approximates the usual angular position of the main recording microphones vis-a-vis the stage. In many cases, microphones are coincident, or even if spaced and multiple, represent a small separation distance compared to the full width of an orchestra stage, and thus this normal microphone geometry is better matched by very closely spaced loudspeakers.

To operate the GDCH-1, one sits in the single listening chair and centers oneself so that each speaker is just past the field of vision of the opposite eye. Sitting too close to the end of the wall reduces the high frequency response and is claustrophobic. As one leans back too far from the end of the wall, the sound field becomes monophonic. The Duntech speakers are ideal for this application since they radiate mostly straight ahead, with padding on their front panels to prevent

diffraction to the sides, the rear, the floor or the ceiling. In the GDCH-1 design, using a highly directional, narrowly beamed loudspeaker for the main channels, can save a lot of sound absorbing material, particularly on the floor and ceiling in smaller rooms.

With just two speakers operating, the GDCH-1 produces a great "they are here" stage image, but the surrounding sound field is not real. I am not "there". I can sense that the stage is not in a concert hall. Placing the performers in a realistic venue—whether concert hall, church, club or studio—when playing one or two-channel source material requires generating hall ambience sounds in a listening room and having them come from the proper directions without modification by that listening room. The GDCH-1 presently uses a pair of Carver AL IIIs as proscenium early reflection loudspeakers, and two pairs of Acoustat 1+1 side/rear reverberation loudspeakers

The front and rear speakers are controlled by a JVC XP-A1000 digital signal processor and the side signals are generated by a Lexicon CP3. The designer of the GDCH-1 suggests using proscenium side and rear speakers that are as wide or long as possible so that the ambient sound source is well dispersed but not correlated (left and right ambient sound kept as acoustically unmixed as possible). In other words, the speakers should radiate from as large a surface as possible, over as narrow an angle as possible (centered on the listener) so as to reach the listener before being mixed together by residual room reflections.

Remember, listening room reflections, even if tending to increase ambient signal dispersion, are a "no-no" in this design. All ambient signals must be generated by computer and should not be corrupted by listening room acoustics. The Carver AL III and the older Acoustat 1+1s, being very narrow, and about 8 feet tall, do this job quite well, al-

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World Radio Histor

though it would be even better if they did not also radiate rearward. All six of these ambience speakers are supported leaning at a 45 degree angle, providing both vertical and horizontal sound source dispersion of some 40 degrees at the listening position.

My high-end colleagues groan at the idea of using a JVC XP-A1000—or any processor—to generate the necessary ambience signals, but the Japanese appear to have made a major break-through in this area. The hall parameters of the JVC (and, to a lesser extent, the Lexicon) and the controls and adjustments are of sufficient quality to convince this reviewer and his golden ear/brain-system friends that in the GDCH-1 environment they are in an acoustic space that is palpably real. I doubt that even JVC or Lexicon realize what their digital signal processors are capable of sounding like in such an ideal environment.

Purists will note that the front channels remain unprocessed after the Wadia, but do go through a non-purist volume control stage in the JVC. Of course, anyone can bypass the JVC entirely and use an external main channel volume control, but then you lose the convenience of the JVC remote control that changes the level of all 8 channels together. I did install a pair of Electronic Visionary Systems Ultimate Attenuators in the main channel to see if any improvement would be audible, but the difficulties in getting volume levels to be precisely the same for comparison purposes swamped any main channel quality differences that might exist.

The JVC does use the direct digital signal from the CD transport to create the ambience signals, so there is no extra analog-to-digital conversion required. The JVC and Lexicon ambience signal D/A converters probably leave something to be desired, but as explained below such imperfections become inaudible when part of a realistic sound field. I would imagine that some day a

high-end ambience generator will come along with both digital inputs and outputs. Then 3 external high-end decoders could be used (just kidding). Remember, however, that the ambience signals compete for audibility with the main channels; I found, therefore, that any JVC or Lexicon grunge was pretty hard to hear. Furthermore, during this review I confirmed a basic tenet of GDCH-1 theory: Once the reality threshold is reached, such minor imperfections become essentially imperceptible, apparently because they are not logically part of that reality.

This is analogous to audience noise at a live concert. You may hear coughs and the rattling of programs, but the music and hall sound fields remain intact and sound just as real. The trick is to generate a sound field good enough to fool the brain into thinking that the space it senses could be real. Once this is accomplished, minor irregularities such as ticks, pops, frequency irregularities and harmonic distortion are not nearly as obtrusive as they normally are, and are much easier to ignore. Indeed, I believe that the sensitivity of some genetically gifted individuals (somewhat analogous to those who have absolute pitch) to changes in absolute polarity, cables and amplifiers is largely due to the heightened sensitivity of a brain trying to reconcile an illogical sound field with its stored parameters of the real thing. [Yet frequent concert-goers can be very sensitive to the unpleasant sounds of good orchestras in bad halls and poorly conducted orchestras in good halls—even though the sounds are without a doubt "real."—Mark.]

I soon discovered there is no such thing as casual listening to the GDCH-1. As one does not read, converse, or knit during a live concert, one soon finds it is not much different in this Domestic Concert Hall, especially since I consistently gravitated (unconsciously) to full concert hall volume. To play a recording, one first consults the booklet or jacket to see what acoustic space it was recorded in. Was it a studio, a church, a concert hall, an op-

era house, a recital hall, a theater, etc.? This is necessary because most recordings include recorded hall ambience that will, unfortunately, come from the front main speakers. To achieve a realistic sound field, it is necessary to match the JVC/Lexicon-generated hall sounds to the recorded hall sounds as closely as possible.

You can do this quickly with a little practice by listening to the main front channels without ambience and estimating the reverberation time of the hall, which in most concert halls or opera houses is from one and one-half to three seconds, then estimating other hall characteristics, such as size. You then select the stored hall parameters in the JVC and Lexicon that best match your assumptions, or custom program your guesses directly, bringing up the ambience channel volumes one at a time to the levels that sound most realistic.

The IVC does include rather effective logic, which compensates for the fact that recorded hall reverberation is being re-reverberated. But for this computer process to work properly you must tell the JVC what the approximate reverberation time of the recording is. Because everything is remotely controllable from the listening position, this tuning process is convenient and becomes instinctive after a while; it usually takes less than a minute. Compulsive tweakers could, of course, make ambience parameter adjustment their life's work, since there are some twenty-odd volume, delay, hall type, decay and frequency response parameters that can be independently varied in small steps for each of six outputs.

The saving grace which prevents tweak insanity is that once the generated ambience sounds real and reasonably matches the recording, it can still be changed—but real is real. I found that minor shifts in JVC proscenium ambience, Lexicon side ambience or JVC rear reverberation parameters changed only

the hall shape, size, liveness, and my perceived position in the hall. Someday audiophile recordings will either be made without significant recorded hall sound, or the hall parameters will be printed on the label—or even stored digitally on the CD itself for automatic electronic control of ambience synthesizers.

As part of my year-long review process, I listened to hundreds of recordings, both LP and CD. To paraphrase Will Rogers, I haven't met a classical recording (jazz is too easy) I couldn't work wonders with. The most exciting discovery was that monophonic LP or CD recordings, even from the twenties, can be made to sound exceptionally realistic in the GDCH-1 room. The reason for this seems to be that many early mono recordings have very little recorded reverberation, making it easier to create a realistic sound field to place them into. Also, the absence of a stereo effect in the presence of well generated hall ambience tells the ear/brain system that the source is distant. Thus, for large mono ensemble sound sources the listener appears to be in the balcony of a large hall—but balcony or not, real is real.

Needle scratches or frequency response aberrations become minor distractions, and Caruso, Toscanini or Lauritz Melchior never sounded so thrilling or three dimensional before—and the Caruso recordings are over seventy years old! Another factor is the RPG wall. When monophonic sound sources are listened to through spaced loudspeakers, a comb filter in the upper midrange occurs, caused by alternating signal cancellation and reinforcement as direct and slightly delayed (.7 milliseconds, approximately) versions of the same sound reach each ear. The wall eliminates this effect and the results are a revelation. Kathleen Ferrier, in particular, has to be heard under these conditions to be believed.

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TARA LABS

As an impartial component reviewer, I must point out the disadvantages of the GDCH-1 listening room design. First the room is not of much use for anything but listening, unless you frequently host live chamber music concerts, and so this is not a good product for small apartments. Unless you use two barriers in a V shape, the central barrier makes it impossible to watch TV or laser disks with both eyes. (I find a new one-eyed TV set built into a sunglass frame useful here.) Only one listener at a time can really hear the music properly and, finally, purists would object that the GDCH-1 incorporates JVC and Lexicon components that are not high-end or 100% analog.

But to put such things in perspective, changing interconnects or using vacuum tube amplifiers instead of the 8x600 watt mono solid state amplifiers used here is equivalent to changing the texture of the paint on a concert hall's walls, or moving your seat one row back. Some such differences may be audible, but nonetheless the soundfield always stays real. Note that the GDCH-1 can produce many realistic sound fields but cannot produce a particular hall with accuracy. Thus, if a recording was made in Symphony Hall it may be reproduced by the GDCH-1 sounding like Carnegie Hall, or most likely like no hall that has ever actually been built.

As to cost, I think the news is not as bad as it seems. The designer's research was costly, as experimental efforts often are, but my tests indicate that the size and sound treatment of the room are not

overly critical. Any room that can be unstintingly dedicated to listening, will, if creatively treated with enough fiberglass sound absorbent material and equipped with a central barrier, produce the effect. Although I haven't tried it yet, satellite speaker systems such as the Infinity Modulus, Bose or other small direct-radiating point-source speaker systems should theoretically work quite well in a GDCH-1 environment at the main front channel positions, even if the sound absorption treatment is not exhaustive. The front ambient and rear/side reverberation speakers should be directional front radiators, but could consist of several small, lower-cost speakers run in series or parallel and placed so as to get some dispersion without risking room reflections. The median wall, while available, at a price, from RPG, can be made (as was a very early model) from a used, free-standing office partition with Sonex glued to both sides.

When the sound field becomes real, the brain stops trying to rationalize the irrational and becomes less sensitive to differences in interconnects, CD treatments, and other costly audiophile adjustments. Such tweaks shrink in importance—even to inaudibility—and the money saved can be used to better implement GDCH techniques.

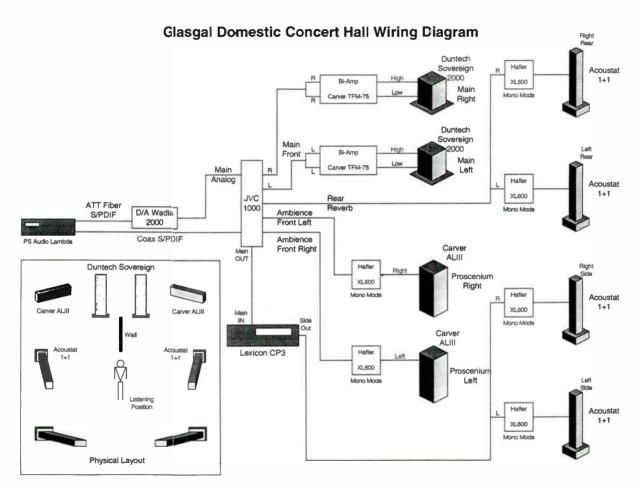
Thus, until a new multi-channel playback standard changes the rules, this reviewer would recommend the Glasgal Domestic Concert Hall to anyone ready to do some serious home listening.

Dr. Ahkbar, I Presume

by Ross Wagner

Rain dripped from overhanging branches. Our wipers intermittently swept the windshield, revealing a narrow, serpentine road ahead. Heavy

woods crowded the twin-turbo sports car as we snaked through the dark, damp night. Absorbed with anticipation, neither of us spoke.



The clatter of low-profile tires over aging boards signaled the wooden bridge detailed on the map Sebastian had sketched for us. As the road angled upward toward the summit, our halogens stabbed two white beams through the thickening fog. We pressed on toward our destination, now dimly visible—an enormous glowing prism of glass and stone.

Once at the parking area, we continued on foot, finally reaching a massive set of wooden doors. With some effort, we raised the oversized brass knocker. It fell with a heavy and ominous thud. At once, I felt a strange sense of déjà vu. Memory flashed me back to the early days of stereo, and the classic Bob and Ray demonstration record, wherein they pay a call on "the brilliant, albeit crazed electronic genius," Dr. Ahkbar. The wet foggy night, the wooden bridge, the castle remote and forbidding; the experience, thus far, was eerily similar. Even the huge wooden doors followed the script. Was the portal before us "carved of Honduran mahogany" as well?

The left door creaked open. A diminutive woman greeted us discreetly, confirmed we were expected and quietly withdrew. We stood, waiting, in a cavernous entrance hall, richly carpeted with orientals. Huge color-field paintings glowed upon the walls.

Our host soon appeared. Sebastian is a man in his sixties, lean and fit, balding, his eyes windows to the intelligence within. His manner is sure and confident. Last week, at his first visit to the New York Audiophile Society, he had described a ten year effort to create a home stereo system reproducing the ambience and sound of the great concert halls of the world. He invited interested members to audition. Being ardent followers of the high-end audiophile fringe, in which \$100,000 state-of-the-art installations are not uncommon but rarely accessible to mere mortals, we accepted immediately.

And now our host was leading us down a long wide corridor. On our left, a large room, furnished with overstuffed chairs and racks of electronic equipment, was illumined by a satellite image flickering silently on a theatre-sized TV screen.

Further, we passed a dimly lit space silhouetting what seemed to be a mass of modern mechanistic sculptures. Looking closer, I realized we were in an enormous gymnasium; the "sculptures" were dozens of exercise machines.

At the end of a gallery a door opened onto a balcony, which we saw was one of three tiers overlooking a huge open space, four stories high, and big enough to hangar a jumbo jet. So this was the sound room!

Below us, banks of audio and electronic gear stood in a sea of sumptuous mauve carpet. To reach it, we were required to negotiate a narrow circular staircase. My companion, the self-styled audio critic, Dr. Angelo Rancatti (Ph.D. in romance languages), who presents a tall and generous figure, hesitated a moment. There was some question as to whether he could fit his considerable girth through the confines of the staircase. After due consideration, we committed to the descent and arrived safely at floor level.

The layout was impressive. Centered ten feet from the shorter wall were two seven-foot monoliths: speakers made by Duntech of Australia. Strung outward in an arc to each side were two additional pairs of speakers, eight-foot Acoustat electrostatics, propped so as to form a 30° angle to the floor. Racks of amplifiers, pre-amplifiers, electronic processors, turntables and CD players stood by obediently, red diode lights signalling readiness.

At the exact center of the twenty-five foot semicircle of speakers was fixed a single chair, the only one in the room. Before it, and extending twelve feet towards the front speakers, was a wall.

Nine inches thick and perhaps seven feet high, it had an irregular surface and was heavily padded. This, explained Sebastian, was an "abfusor" designed to direct the sound of the left speakers to the left ear, the right speakers to the right ear.

I mounted a step into the tall, narrow, straight-backed chair, precisely spotted in the only position where the desired audio effect could be heard. My body was held securely, barely eight inches behind the thin rear face of the abfusor. Sebastian adjusted my head two inches forward, to be "properly focused," he pointed out. I now had a clear view of the flocked surface of the wall; all else was obscured. I elected to close my eyes. The music began.

Resphigi, *Brazilian Impressions*. Violins stretched out to the left, cellos and bass viols to the right. I was in a 270° ring of sound. The rich aural ambience of the church in which the recording was made suffused the music. What an effect! Surely, I thought, Sebastian was an electronic genius. Next came Handel, Caruso arias and Toscanini. Regardless of the age of the recording, whether it was in stereo or mono, the effect was there. It was a sense of presence and space I had not experienced except in a concert hall. I clucked my approval to Sebastian who nodded appreciatively.

Throughout the audition, my companion and I took turns squeezing into the chair at the prescribed sweet spot. Dr. Rancatti, a laconic man not given to quick judgments, who in his late teens studied conducting under Maestro Pierre Monteux at Tanglewood, had said nothing. However, his left hand jerked repeatedly to his ear lobe, which he tugged at and fingered. I knew this gesture all to well, having seen it often as he sat before my modest speakers. It was not a good omen.

Then it happened. In the absolute silence following a particularly stirring aria

from Beethoven's opera, Fidelio, Dr. Rancatti muttered his first words, almost inaudibly, "The sonic image is flawed. There is no depth."

The utterance, however muted, echoed through the room and rang in the hush that followed. "Oh, no!" I gasped, wishing I could somehow be beamed to another planet. But there was no escape for me. Dr. Rancatti's words were final and irrevocable. Dr. Rancatti's golden ears had spoken.

Sebastian could not conceal the damage to his ego. His eyes narrowed to slits. His arms stiffened perceptibly. His hands trembled. It was clear Sebastian was a man unaccustomed to criticism.

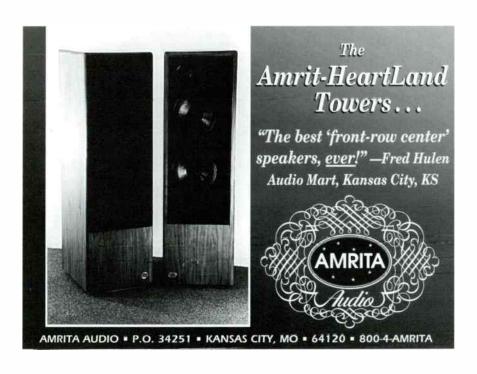
Then, as an act of will, Sebastian began to recover. Sputtering as he regained his composure, he explained that the system was not as yet fully tuned. There were adjustments to be made, refinements needed, many hours of tweaking still ahead. A weak, almost embarrassed, smile crossed his grim, taut visage.

Thereafter the atmosphere became one of restrained cordiality. We listened less critically to several other selections, including Sebastian's favorite, Mussorgsky's macabre *Night on Bald Mountain*. Indeed, it might have been Dr. Ahkbar's favorite as well, I thought, concealing a wry grin.

The diminutive woman who had first greeted us brought an exquisite and generous platter of authentic biscotti along with a selection of exotic teas. We ate hungrily, leaving only crumbs scattered over the white lace doily that lined the silver serving plate. Dr. Rancatti, I noted thankfully, offered no criticism whatsoever of the biscotti.

Midnight approached, and at this magic hour we said our good-byes and slipped into the now seemingly ample seats of the twin turbo for the ride home. Descending from the summit, leaving the modern-day Dr. Ahkbar's laboratory behind, we broke through the shroud of

clouds and mist into the clean, clear air of a late spring night.



Obscura

Four Strong Winds

David Nemzer

kay, I formally swear off any further seasonal references in this and all future articles. I know we've established a new working routine and printing schedule, and have promised our readership a more timely product, but I'm playing it safe: All "time" references in the future will refer to nothing sooner than the next millennium. I can take only so much ribbing about "time warp" reviewing.

I seem to be have gotten through my audio "emotional blockage" in the last two or three months. As is the case with most audio depressions, group pressure brought me out on a breath of strong air for my system—my tone arm specifically. My front end has been constant for the past few years, with upgrades to the ET 2 tonearm comprising the major changes. First there were the upgraded bearings, upgraded arm tubes, rewired arm tubes, and finally direct-wired arm tubes using Joe DePhillips specially designed Discovery tonearm wire. I consider myself in good company, because Air Tangent uses his wire exclusively, Immedia uses it in their RPM line, and Graham offers it as one of the optional wirings. Call Discovery (908-359-2485) to get the facts. My air source is a Wisa pump coupled to an Airtech surge tank, and my table is a VPI MkIII. Recently some of my better-off friends started using the Motronix regulator. Great product but at a steep price—about \$500. And this is where the audiophile buddy system comes to the rescue.

Our group has been in existence since the mid eighties when we met in the moment of madness that was the opening

of Tower Records in NYC. Since then we've had a few retirements and a few dropouts, but the groups' collective desire to be friends in the goal of better audio has remained constant. We're a total cross section of ages, backgrounds, musical tastes, incomes and ears. We meet regularly at each others' homes, where we exhibit classic audiophile behaviors: We listen to the same three or four records a thousand times a year as we constantly criticize the systems. Those of us who own CD players use them only to warm up our tube systems. We go to the same record flea markets every week, and complain when we buy three records for \$9: "What a crook!" We go to the same restaurant for breakfast every time, and are so well known that we probably never even have to order every waiter knows the litany of our culinary preferences. And finally, we all live to serve our Lord and Master, the last living god of vinyl, Sid Marks-or "uncle Sid" as we affectionately call him. [Or Sid Vicious, as he is known at Audio Society meetings, especially when the subject of digital sound comes up. Normally mild mannnered, Sid also turns ugly when I bring in badly worn-out LPs to sell to insatiable vinyl addicts.—Mark]

Every one of us has had our hands and hearts in the modification and maintenance of The Exalted One's system. We all find flaws (that's the audiophile's right) but it's the least flawed system we have ever heard, and I have always believed that many of Sid's reviewer friends are afraid to have a session with the Master because they would then have to justify their beliefs in what they claim to hear in their own "great" systems. [Flash: Bob Reina of TAS has recently made the journey to the Master's home, and

is now a confirmed apostle.—ed.] I won't identify his components, because it's Sid's right to tell you what he uses. When changes are contemplated, the "ear board" meets, and after much discussion an attempt to change is tried; some fail, most succeed because we never do anything rash in the service of the Master's system. There is a pecking order of importance of the different ears, and in the goal of group unity it's respected—most of the time.

My point is that if you're a serious audiophile, you have to be a member of a group! It can be small or large, all 'philes or not, close or spread apart. It might require trips to get together, whatever, but it's mandatory, because no one's ears are as good as several frequent guests'—especially when something is wrong with the system (even the Exalted One's system). It's not the end of the world when you're confronted with glaring errors in

hook-up or phasing; it has happened to every last one of us, and it's always your friends who catch it. So make audio friends!

Where was I? Oh yea, the Motronix. One day group member Richard "Lungs" Foster comes down from Toronto for an audiophile escape and brings with him a home-made regulation device that turns out to be terrific. (That it looks like the Pompidou Center is another matter.) It's a precision regulator for scientific applications: filter and gauges galore, pneulok fittings, it has it all. The girlfriend will never notice it; she thinks the whole system is a visual horror anyway.

Next, member Louis "Mod-master" Cardona, originator of the best Maggie III crossover mod we've ever heard (I use it, and so does another highly regarded reviewer) locates the McGowan brothers of Tri-State Supply Company, 161 Ja-

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maica Avenue, Brooklyn, NY 11207 (call 718-647-1221 and ask for Shawn). After Louis and I had made a few visits and dispelled the McGowans' disbelief ("you're using this for a record player!?") they agreed to supply all parts necessary to create a Motronix-type regulator for one hundred and fifty dollars!! For an additional \$15 you can get an input pressure gauge as well. All parts are absolutely top quality. Tell them what pressure your pump puts out (i.e., the Wisa is 16–22 pounds). You have an option as to the regulator's range of 0–30 or 0–60 psi. Based on our experiences with this unit, I promise you great results for your ears and a bundle left in your pocket!

Just remember: You're building it, although basic instructions will be provided. You can mount it on the wall or your turntable stand, or you can build a Lucite "L" stand. This is a low cost but top quality upgrade that will give you a very high degree of sonic satisfaction as long as you own a Wisa or high rated psi pump! Don't expect this unit to work on a stock ET pump, as the psi is just too low to allow the regulator to function as it should. You must have more air going in than out—the more in, the more effective the regulation. And I'm warning you that this can lead to the next level of air arm madness: the dreaded "Compressoritis Tonearmis"—or One Strong Wind!

GILLIGAN'S ISLAND

Mark has asked us to come up with some "desert island disks" of a romantic nature for our readers to consider. Well, in the great tradition of Obscura, I'm going to take "desert island" literally and stray a bit. Every desert island story I've ever read was about some poor soul stranded in the middle of nowhere with only themselves for company. No, thank you—the last thing I'd want to be reminded of is that I'd be romancing myself, probably to death. No, what I'd want is some company, and that means people. To soothe me during moments

of stir craziness I'd want to listen to the Choir of St. John's College, directed by George Guest, with organ by John Scott, on *Psalms of Consolation and Hope* (Argo ZRG 892, vinyl, of course).

I was introduced to this recording by an audio group member, once removed, who used this record to escape from a day of teaching teenagers. Actually, I think he used it every day, and for good reason! This is a wonderful collection of psalms put to music that goes back to the beginnings of modern religion. You hear clearly delineated choirs of men and young boys singing about their love for God and His meaning to all that abounds in His universe. Beautiful singing! You hear some delicately played but extremely deep bass organ notes that will, if your woofers permit, quietly thrill your spirit. The organ never overpowers the singers; it compliments them perfectly. It was recorded at St. John's College, and since the boys were singing at home they were relaxed and really on target with this recording session. By the time you finish with this one you will either be consoled or asleep, but you will surely have been satisfied by one great choral recording that brings together beautiful strong winds.

Okay, now that you're consoled and at spiritual rest, you may need to be uplifted, and for company on that journey nothing is more uplifting than Aretha Franklin's Amazing Grace (Atlantic SD 2-906, vinyl, of course). Someone had this on the Stereophile list and it's a great choice! You have Aretha at her best, James Cleveland and the Southern California Community Choir rocking in the isles and talking to god-and to you, brother! They're exhorting you: Get up you fool! You can swim to the mainland! You can make it, Bunky!! And if you can't, you can listen to this great live recording and hear different things every time you play it. It's an audio treat as well, because it captures a ton of sounds in the New Temple Missionary Baptist Church, where it was recorded 22 years

ago. Terrific company on the island—and you still don't have to worry about romancing yourself listening to these strong Baptist winds.

Okay, you got it under control, you can handle the isolation, your hands haven't left your sides and you're ready for a trial run at a little romance. Not too much now! Let's appeal to your mind as well as your heart. Let's have you listen to one of the greatest recorded live concerts at, you guessed it, Carnegie Hall! You're off the Island—Bunky, you're there June 9, 1962, for Tony Bennett at Carnegie Hall with Ralph Sharon and his Orchestra (Columbia C2S 823, vinylwhat else? Actually, this one is available on CD, too: Sony Music Special Products A 823, AAD). Unfortunately, it sounds like a "special products" on CD, but not on vinyl. Natch. Carnegie Hall again proves it's the best damn place to record anything: any style, any size, any type. I could be stranded in that house forever!

Some older friends and I have continually sought more and better copies of this album 'cause we play it to death. It's Bennett at his best. You know, for years I wouldn't tell people I listen to this because all I would get is looks at the ceiling or comments like, "that old fart." And now, thirty-two years after this was

recorded, Bennett is as big as he ever was and he's doing MTV Unplugged for people probably fifty years his junior!! What is this, the second coming of the ballad god? You bet it is, and this one is worth hunting for if you want to hear some sensitive live communication between a singer and his fans. It's total dedication of the audience to the art of the performer. This guy is one of the best small room bar singers that you'll ever hear, and the fact that he can make you believe that only a few other people are there with you that night in '62 is testament to what he could do then—and he is just as good at it today.

This guy is huge in the scheme of popular music, and if you want mature music at its best, don't miss him now and try to find him then. His is as gorgeous a breeze as the human voice can be. Bennett takes you on a ride through twentyeight songs, mostly ballads, with a grace and energy that epitomizes total command of the art. On cuts like "All the Things You Are," "Climb Every Mountain," "It Amazes Me," "Solitude," even "Blue Velvet," that pop horror of the 50s, he takes the songs and weaves a spell so involving and intimate that you're just whisked right off that pile of sand on a wind of musical wonder.

Classical

Bach: Goldberg Variations; Chromatic Fantasy and Fugue in D Minor. Samuel Bartos, pianist. Connoisseur Society CD 4176

Domenico Scarlatti: Six Sonatas; Beethoven: Piano Sonata No. 3 in C, Op. 2, No. 3; Brahms: Variations on a Theme of Paganini, Op. 35. Mordecai Shehori, pianist. Connoisseur Society CD 4177

Beethoven: Sonata No. 9 in A for Violin and Piano, Op. 47 (Kreutzer); George Rochberg: Sonata for Violin and Piano (1988). Maria Bachmann, violin, Jon Klibonoff, piano. Connoisseur Society CD 4178

Debussy: Prelude to the Afternoon of a Faun; Petite Suite; Sacred and Profane Dances; Ravel: Mother Goose; Frontispiece; Arnold Bax: The Poisoned Fountain; Alfredo Casella: Pupazetti. Bradshaw and Buono, pianists. Connoisseur Society CD 4171

There was a time when it was deemed impossible to capture the full frequency and dynamic range of the piano on vinyl disk. This was true even during the Golden Age of stereophonic recording, say 1955–1963. The problems lay in the percussive nature of the instrument—that is, the extremely rapid rise time followed by a dwell time leading to either a truncated (damped) or extremely long, sustained trailing edge. It was believed that neither the cutters nor the cartridges of the day could handle such transients. The results, which can be

heard in any piano recording of the period, were severely compressed dynamics and a virtual absence of deep bass.

In the late 1960s, a new record label appeared, Connoisseur Society, dedicated to the proposition that realistic reproduction of the piano on vinyl disks was possible. The visceral thrill of hearing a true forte deep bass crash from a Connoisseur-recorded piano was one of the major highlights of the post Golden Age era.

The man who was instrumental in bringing all of this about was E. Alan Silver, who had founded the company and produced the recording sessions. Silver later inaugurated In Sync Laboratories, one of the first companies to duplicate audio cassette tapes in real time. Today, In Sync tapes are among the very few worth listening to.

In the digital age, once again the piano's sharp transients have led to large scale problems. Sampling rates are simply insufficient to capture the leadingedge transients or the sustained trailing edges—the problem of loss of low-level detail, again! Any recent CD recording of the piano by even an audiophile label will suffice to make the point.

Along comes Alan Silver to prove once again that today's medium can be coaxed into delivering something closer to the real thing than everyone else realized. Although no digital piano recording can compete with the finest analogue recordings of the instrument, including Silver's own, any of the disks under discussion can be used to demonstrate that some of the same excitement can be generated by the binary digits.

In the 1960s and 70s, Connoisseur Society developed what amounted to a repertory company of artists of the first caliber, including Ruth Laredo, Morton Estrin, Antonio Barbosa, Wanda Wilkomirska and, for the first time in sonics worthy of his artistry, Ivan Moravec. Today, Alan Silver seems to be repeating history by introducing a new group of artists of the first rank, providing them with the best sound that can be squeezed out of today's technology.

American pianist Samuel Bartos has been specializing in the music of Bach, and here tackles one of that composer's supreme masterworks, the Goldberg Variations. In this work, Bartos competes with, among others, Wanda Landowska on the harpsichord (I have her performance on vinyl disk RCA LM 1080) and Glenn Gould's 1955 recording (on the original Columbia release ML 5060, which is available on CD CBS MK-37779). (Gould's 1981 digital recording is willful in the extreme, often grotesquely distorting the music. It should be avoided.) Landowska's spontaneity and instinctive propulsiveness result in a performance I find irresistible. Gould's recording, made when he was only twenty-two, took the classical music world by storm. It is suffused with a nobility and strength that are astonishing. Gould's technical command was, of course, complete; hence, the richness of Bach's invention, in what might be called the "Art of Canon," is made manifest. Surprisingly, perhaps, I find that this performance makes an enormous emotional impact as well. The return of the aria, for example, is stunning.

Although Bartos is an accomplished pianist, he simply cannot compete here. There is an air of cautiousness that pervades the proceedings. He opts, most of the time, for slow tempi and seems undecided as to whether he should aim for a detached style or not. He starts that way, loses it in Variation 2, regains it in 3, loses it again in 4, and so on. Trills, as in Variation 7, are non-uniform; the fugal theme in Variation 10 is hammered out unpleasantly; the line in 13 is choppy, etc. By the time Variation 23 is reached, the pianist sounds tired and clinkers begin to appear. There is nothing really awful here; it is simply that Bartos does not rise to the exalted level of Landowska and Gould. The Chromatic Fantasy is well played, even movingly played, but technical limitations surface again in the Fugue.

Piano tone is very good; deep bass is palpable and reasonably well focused. The highest notes are digitally dead, but somehow less so than usual. The lack of a feel for the acoustic space may result as much from the very close-up nature of the recording as from the usual digital problems. The sound quality seems to change at Variation 23, becoming even more closeup. This leads to a more diffuse sounding treble and pedaling noise, which sounds as repeated thumps. At the return of the aria, the sonics revert to their original state. In short, this is the least successful of the four disks under review and cannot be recommended with enthusiasm.

The Shehori disk is an entirely different matter altogether. Mordecai Shehori is an Israeli-born pianist who has studied with, among others, Beveridge Webster, Claude Frank and Mindru Katz. His performance of the Scarlatti sonatas is refined, demonstrating evenness of touch and a good sense of line. The digital recession effect I have spoken of at length in past issues hurts some these pieces since the thematic treble line becomes submerged behind the accompanying bass.

Where Shehori exhibits his true temperament is in the Beethoven and Brahms works. His virtuosic, declamatory playing style is perfectly suited to

these works. Here, he favors strong dynamic contrasts, superb linear thrust and affecting lyricism when called for. The Beethoven goes particularly well, resulting in the finest performance of this work I can remember hearing. I particularly enjoyed Shehori's handling of the rising/falling left hand accompaniment in the second movement, with its hint of a swell at the top, and his understanding of the diabolical nature of the scherzo.

The Brahms contains numerous technical hurdles, which Shehori handles with aplomb. I liked the way he clearly differentiates the variations without resorting to pedantry, as well as his way of slowing down slightly leading up to a note of emphasis. Again, the pianist employs a wide dynamic range, generating considerable excitement.

The piano sound in the Scarlatti pieces is somewhat dead, but improves considerably in the Beethoven and Brahms. In fact, the piano tone in these latter works is quite good, with excellent bass registration and even some ping at the high end. The highest notes in the Brahms sound clattery, but there is only so much one can do with an inferior medium. This disk then wins high marks for both its artistry and technology, and is highly recommended.

The Bachmann/Klibonoff disk can likewise be recommended for its passionate rendering of the Kreutzer Sonata. Maria Bachmann, clearly a violinist of the first rank, plays with superb intonation and control. The first movement Presto is projected with tremendous urgency and vigor by these performers. Some may feel this to be a little too vigorous, but it is just the sort of intensity upon which the Kreutzer thrives. Bachmann's control is apparent in the little ebbs and swells in the second movement Andante with Variations. And Klibonoff's contribution here (and throughout for that matter) is remarkable. The variations in which the piano has the lead are played with superb rhythmic elan; the lyrical variations are positively rhapsodic. The third movement Presto is breathless and vital, both artists exhibiting complete mastery individually along with excellent ensemble rapport.

American composer George Rochberg is a genuine enigma. He began his life as a composer writing atonal music, often twelve tone, of great power and vitality. His First Symphony, for example (on Louisville Orchestra recording LOU-634) is a remarkable piece about which Rochberg himself has written, "I still like its raw power and dark passion, its rhythmic force and its biting edge, its tender moments and reflective qualities." This writer agrees completely. Then, in the 1960s, the composer averred that serialism is "finished, hollow, meaningless," and led the charge to the Nirvana of "Neo-Romanticism." His works since that time, at least those with which I am familiar, are dry, sterile and pompous. The much heralded Violin Concerto, premiered by Isaac Stern in 1975, is a good example (on Columbia M 35149) and the Sonata on CD4178 is another. The melodic invention in the first movement is so poor that the principal theme can only be characterized as ugly. Obviously something of importance is supposed to be going on here, but the melodic obstructions and lack of dramatic sense render it impossible for one to be involved.

Similarly, there is much dissonant thrashing around in the second movement, which in the end sounds so synthetic it again left this listener cold. Synthetic is likewise a good word to describe the extreme dynamic contrasts occurring in the third movement, which seem to arise out of conscious effort rather than inner compulsion. By the time the fourth movement had rolled around, I had lost interest.

Piano sound on this disk is excellent: the violin is more problematic. The ultra high frequency overtones, which impart that warm, woody timbre to real violins, simply have not, can not and never will be captured digitally so long as we are stuck with these Moritaendowed bits and sampling rates. Given Bachmann's other technical attributes, enumerated above, it seems probable she produces a wonderful tone as well, but one cannot tell that listening to this. Imaging is good, with the violin slightly right of center and the piano clearly behind. In sum, an outstanding version of the Kreutzer Sonata, in sonics certainly as good or better than one can expect on CD, coupled with an eminently forgettable work by a composer who has lost his way. I feel it's worth the price of admission, but music lovers must decide for themselves.

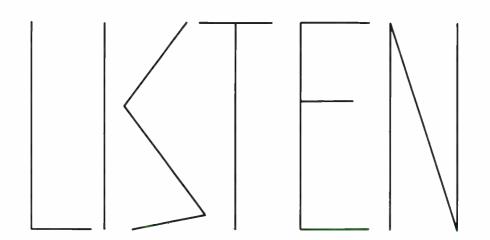
I have saved the best for last, for I have no hesitation in labeling the Bradshaw/Buono duo piano disk, which was released in 1988, one of the finest recordings of that decade. There was a time when duo piano teams thrived (Whittemore/Lowe, Hambro/Zayde, Keene/Chasins, etc.). Since that day, quasi virtuoso orchestras and media hyped soloists have ruled the roost in the United States, and duo piano teams have waned. Many of these works appear on the two-disk vinyl set by the Kontarsky brothers issued on DG in the 1970s (DG 2707 072), and later reissued on a DG budget label (415006-1). At all points of convergence, the Bradshaw/Buono disk is to be preferred. Even sonically, since the DG recording was never any great shakes anyway, the newer disk wins out.

I have pages filled with laudatory notes out of which I offer a few morsels.

- The Debussy Prelude is laden with the mystery and implied eroticism of the music. Ravel's two piano arrangement is so successful, one never misses the orchestral color of the original.
- The *Petite Suite* is performed with all the imagination and poetry one could hope for. The music is neither overwhelmed nor patronized. The gentle rocking motion of the boat on the water (En Bateau), the subtle pomp of the Cortege, the grace of the Minuet and the lilting charm of the Ballet are all marvelously evoked.
- The oriental flavor of much of the Danses Sacre et Profane struck me more forcefully here than in the original version for harp and orchestra. In this case, Debussy himself was the transcriber.
- Mother Goose is totally magical, all fantasy and fairy tale. The pianists produce lucid textures and refrain from engaging in "impressionistic" smearing.
- The Bax music evokes more of the water and less of the poison than the Celtic legend it purports to be based upon. It is engaging nonetheless, as are the five short pieces by Casella.

The pianos focus nicely center-left and center-right. Piano tone is generally excellent, with some discernible ambience present as well. Again, pedal noise can be heard, along with some clatter when the treble is played forte. All of this pales, however, beside the artistic accomplishment. It is, after all, the artistry that makes Schnabel's Beethoven, Koussevitsky's Sibelius and Kapell's Rachmaninoff thrilling (certainly not the sonics). Does this Bradshaw and Buono disk belong in that exalted company? Yes.

Wally Chinitz





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Jazz

Charlie Haden & Quartet West: Haunted Heart. Haden, bass; Ernie Watts, tenor; Alan Broadbent, piano; Larance Marable, drums; Alain Cluzeau, engineer; Verve CD 314 513 078-2.

Pharoah Sanders: Welcome To Love. Sanders, tenor and soprano sax; William Henderson, piano; Stafford James, bass; Eccleston W. Wainwright, drums; Max Bolleman, engineer; Timeless CD SJP 358.

"We shall not cease from exploration And the end of all our exploring Will be to arrive where we started And know the place for the first time." —Little Gidding

ne of the most reliably enjoyable and stimulating formats in jazz is to have formidable avant-garde musicians explore the standards of the past. They unfailingly do so with original insight, breathing new life and feeling into the music. All that experimentation with structure, time, harmony, melody, and improvisation gives the progressive artist tools to use that previous generations of players didn't have. They almost invariably play the music with respect and a touch of sentimentality. It's what they grew up on.

Charlie Haden and Pharoah Sanders have done magnificent jobs on these CDs. Both artistically and sonically (for multi-miked jobs) these are near faultless.

Haden has conceived a whole art deco, film noire fantasy for us. Opening with the original recording of the Warner Brothers logo fanfare from "The Maltese Falcon," we dissolve to "Hello My Lovely," a Haden composed medium tempo piece inspired by the Los Angeles of Raymond Chandler. Watts and Broadbent give us sincere emotion in their solos, but we are just being set up. "Haunted Heart" is a killer ballad in Haden's hands and evokes the feeling to be sustained throughout the album. As the last notes die out we hear a fade up on Jo Stafford's 1947 version of the same tune—just to make sure we are sufficiently nostalgic and have our eras in order.

Two other female singers influence the mood. Jeri Southern's "Every Time We Say Goodbye" (1954) and Billie Holliday singing "Deep Song" (1947—prefaced by Haden's group) are used to excellent effect interspersed with the remaining ballads on the program: "The Long Goodbye," "Moonlight Serenade," "Lady In The Lake," and "The Bad And The Beautiful." Oh, those ballads! It is ballads that are most difficult to play (or sing) because they are most revealing of content and feeling. Fast tempos can cover up technical faults, lack of ideas, and lack of interest, which the slow tempos of ballads painfully reveal. But everyone is together here, everyone is interested.

Some up-tempo numbers keep things from dragging, but the overall feeling is bittersweet heartache. You'll recall through the haze of time the melody of "The Bad And The Beautiful," and as it comes back to you, you'll delight in the way these jazz artists interpret it. Two compositions by pianist Alan Broadbent, "The Long Goodbye" and

"Lady In The Lake," similarly have a yearning feeling that I find very attractive. I kept thinking while listening to this CD of all the lost movies, lost loves, and my earliest memories from the mid-forties. Thank you Charlie, for the black and white movie.

Where the Haden CD is bittersweet in feeling, the Pharoah Sanders date is pretty and sentimental. Sanders was a contemporary of John Coltrane and they share some stylistic traits. He recorded with Coltrane on some of the latter's albums during his "cosmic" period: Meditations (Impulse 9110), Live At The Village Vanguard Again (Impulse 9124), and Om (Impulse/MCA 39118). They played with the anguish of the revolutionary '60s. It produced a movement of jazz musicians who explored their instrument more fully than previous generations. Sometimes this was heard as honking and squawking, but it also produced tonal exploration and spirituality. Sanders has always had these elements as the driving force in his playing and composing, and they are applied here in appropriate measure to reinterpret these beautiful ballads.

"You Don't Know What Love Is" is startling in that Sanders' opening notes, in tone and style, sound like Coltrane playing. After a straight run through the melody, William Henderson takes a beautiful solo in a faster tempo, the bass solos, and the tempo slows again for Sanders to reprise the melody. "I Want To Talk About You" provides an opportunity for Sanders to explore the upper range of his horn and the melody together in a moderate tempo. The tune is sufficiently unknown for the material to sound fresh, yet familiar. The same is true for The Frank Loesser standard "Say It (Over And Over Again)" in which Sander's playing is very affecting. The level of playing on all the tunes is high and, as

in the Haden piece above, the musicians stay interested.

You can't underestimate the importance of that last statement in jazz performances. Any attempt to fall back on clichés (the natural result of disinterest) is picked up immediately by the listener. Don't forget, the value of jazz rests in improvisation, the "sound of surprise." "Lament" features a long bowed bass introduction, which is interesting, and "The Bird Song" is a solo by Sanders that most clearly reflects his spiritual motivations. Recording balances are very good, with no one instrument dominating the stage except when soloing. The bass is mercifully tight and lean—none of the woof that many engineers go for is present, with the result that the vital midrange octaves are presented without any muddy quality.

Both these recordings carry my personal recommendation to you. Nonjazz fans can't go wrong either.

Richard Wolter

Arturo Sandoval: Dream Come True Sandoval, trumpet; Michel Legrand, piano, arranger & conductor; Ernie Watts, tenor; Bill Watrous, trombone; with orchestra; GRP GRD 9701.

Film composer (Umbrellas of Cherborg) and jazz arranger Michel Legrand sets the basic tone of this date. His arrangements are lush, sweet, and provide a constantly varied background for trumpeter Arturo Sandoval to solo against. This is orchestrated jazz on the smooth side, not commercial, not experimental, and thankfully free of commercial funk rhythms.

Cuban born trumpeter Arturo Sandoval is a mellow, technically masterful soloist who is an effective cross between Miles Davis and Dizzy Gillespie. He traces his jazz roots to Diz and the cross fertilization between Cuban music and American jazz pioneered by Gillespie and Charlie Parker in the early '50s. On this recording however, there is little Latin influence, and the effect is more akin to Miles' collaborations with Gil Evans. Most of the tunes are jazz standards, played with a sense of perspective rather than innovation.

Legrand uses the strings sparingly and varies the size and mix of the ensemble sufficiently from track to track to keep things interesting. The recording has the vivid, Technicolor sound typical of GRP sessions. This is good casual listening.

Richard Wolter

Lyle Mays, Fictionary. Lyle Mays, piano; Marc Johnson, bass; Jack DeJohnette, percussion. Producer: Pat Metheny. Geffen 24521.

This review covers an album that I have often played for guests at my home, recommended to a host of others and actually given as a gift to a precious few. So far no returns! In my opinion, this is Lyle Mays at his best. It is one of those pleasant musical surprises that just makes you forget about the relative high price of CDs today and simply enjoy the music contained on it.

This recording oozes style and grace, and each musical selection is quickly accessible to the listener. Nothing on it is overly complicated, remotely avant garde-ish, hip-hop-ish, jack city-ick (sorry, I mean "ish") or electronic. It is

simply a solid, exquisite piece of contemporary jazz.

In the past, I have often been impressed by various works of Mays, but never on a consistent or sustained basis. Not that I didn't like his previous works, it just seemed that his meandering between traditional straight-ahead jazz and contemporary fusion did not allow me to ever really get into his groove.

Not so with this album. On Fictionary Mays moves beyond his usual fusion ways and offers another view of his piano. This album has substance. Most of the compositions here are Mays' own, with the exception of one track. His long-time associate Pat Metheny served as the producer, and although this combination of talents is familiar, the result is a different kind of style and grace for Mays.

Each cut has its own distinctive personality—from the dreamy, warm and luscious opening piece, appropriately named "Bill Evans," to the more spirited and forthright title track. Of course, I have my own favorites. In particular, I am moved mightily by "Where Are You From Today." Following close behind is "Sienna." There is a kind of seductive quality to this selection that simply draws you in for some delicious listening.

The interplay among the three players is eminently smooth and seamless. Switching back and forth, they never loose a beat. Because of the performers' exquisite timing and finesse, the music simply flows throughout the album. This allows the listener to get into a mostly calm and relaxed mood and thoroughly enjoy the beautiful sounds. The presentation is very lyrical, and although a variety of styles are intertwined throughout the sixty-six

minutes of music, phrasings are always warm, even tender.

If you didn't know for sure that it was DeJohnette, you might accidentally mistake some of this album's percussion work for that of Dave Weckl (one of Chick Corea's earlier and oftenimes explosive percussionists). On *Fictionary*, DeJohnette accompanies Mays much in the manner of his outstanding percussion work on another superb piano album, Gonzalo Rubacalba's *The Blessing*.

Recently, a local Twin Cities' musicianfriend pointed out that DeJohnette is an accomplished piano player. Given that, it is understandable how he can weave in and out of the various selections with such ease. Never does his playing intrude on the primary featured artist. Instead, it always seems to be the perfect complement to the featured instrument. Overall, his approach to drum and cymbal work is masterful.

Sound quality is very high. The mixing is seamless and the balance has a nice sense of fullness. In addition, the power and delicacy of both the piano and bass is captured very convincingly. Percussion work, especially the cymbals, is handled very well. Detail (for all instruments) is rendered superbly, with nothing exaggerated or hot. All in all, the sound is smooth, ever-so-slightly warm and wonderful to listen to.

Basically, this album is one of those instances where the sum of the parts is greater than the whole. Therefore, my recommendation is simply this: Go out and buy it. Warm up your system, get comfortable, cue it up (OOPS, I still have those chronic analog "he-be geebees") and enjoy! You won't be disappointed. You can thank me later!

Chico and Von Freeman, Freeman & Freeman. Chico & Von Freeman, tenor saxophones; Kenny Barron, Muhal Richard Abrams (one track only), piano; Cecil McBee, bass; Jack DeJohnette, drums. Producer: Bob Cummins. No recording engineer credits. India Navigation IN 1070.

'he music on this compact disc was recorded in concert at the Public Theater in New York City on two evenings in April of 1981. The Freemans are members of a Chicago musical family who are steeped in the tenor saxophone tradition associated with this major jazz city. Father Von has remained in the Midwest his entire life, which helps to explain why Chico, who left home some twenty years ago, has recorded more and is better known. Von's style is the more parochial of the two, his gruff, choked sound evoking other more illustrious Chicagoan saxophonists such as Johnny Griffin and Gene Ammons. I prefer the smoother, Coltrane-influenced sound of Chico, together with the modal pieces he tends to favor on his own recordings.

Possibly in deference to the elder Freeman, however, this CD features him exclusively on four of the seven tracks, all of them well-worn standards (e.g., "Lover Man," "I Can't Get Started"). Chico is featured only once, on his own composition "Undercurrents" (previously recorded on Chico's *The Outside Within*), and the two join forces on a pair of lengthy blues jams. While the rhythm section is an excellent one, this recording is only recommended for devoted fans of either artist.

Martin Milgrim

Bill Wells

Dave Grusin, Homage to Duke. Clark Terry, trumpet, fluegelhorn; Pete Christlieb, Tom Scott, tenor saxophone; George Bohanon, trombone; Grusin, piano and arranger; Brian Bromberg, John Patitucci, bass; Harvey Mason, drums. Producer: Dave Grusin. GRP GRD-9715.

A musical homage is a tricky proposition. Ideally, it should consist of fresh interpretations that serve to evoke the spirit of the artist who is being honored, without resort to slavish re-creation. Otherwise, what's the point? Though there are exceptions (Joe Henderson's tribute last year to Miles Davis, So Near, So Far, comes immediately to mind), life is too short for indulgent homages. Rather, it is far more rewarding to immerse oneself in the original focus of the tribute itself.

Sadly, little on this recording serves to change my mind on the subject. To be sure, Grusin tries—his arrangement of "Caravan" is very adept—but the greatness of Duke is so comprehensive in scope that the task of creating an entire album that could stand alongside any of the master's many great recordings is overwhelming. Too often on this CD there is a surprising amount of stiffness on pieces noted for their ability to generate swinging improvisation; e.g., "Cottontail" (originally, a showcase for Ben Webster's propulsive tenor). The presence of a true Duke alumnus, Clark Terry, does not help to raise the musical stakes. In fact, his insistence on resurrecting his "mumbles" act (nonsensical, non verbal singing) not once, but twice (!) on this recording, serves to further deflate the proceedings.

There is one somewhat interesting interpretation of an Ellington classic—Billy Strayhorn's "Take the 'A' Train."

Despite the contrasting use of Ellington-like piano flourishes, it is performed at a tempo so slow as to be more suitable for taking the Goodyear blimp. Yet somehow it succeeds as a valid, alternative interpretation. But this is the exception. Better, to explore the original RCA Victor and Columbia recordings, of which many are available in the compact disc format.

Martin Milgrim

Tom Harrell, Upswing. Harrell, trumpet; Joe Lovano, tenor saxophone; Phil Woods, alto saxophone; Danilo Perez, piano; Peter Washington, bass; Bill Goodwin, drums. Producers: Steve Kaiser & Bill Goodwin. Recording engineer: Bob Katz. Chesky JD103.

mong insiders, Tom Harrell is Lone of the most respected trumpeter-composers in the current jazz arena. That he is not as well known by those who profess themselves to be jazz fans is due to a variety of reasons, not least of which may include a generous amount of Crow Jim bias by club owners and concert promoters towards a white jazz artist saddled with additional questions about the soundness of his mental state. For those of you who may be eager to hear a major talent on trumpet playing accessible, straight-ahead jazz, look no further than this wonderful compact disc.

Harrell composed seven of the eight titles on this set, the exception being Ornette Coleman's whimsically named "Blues Connotation." The title piece is aptly named, the three front line players immediately expressing considerable swing and empathy. Lovano comes across throughout this session as the consummate voice he is on tenor sax, his soloing on several of the pieces reflecting an emotional range from the sensitively poignant to the rapturous,

including outbursts characteristic of one of his (no doubt) mentors, John Coltrane. While Phil Woods has never been a personal favorite, his energy level reinforces the power and propulsion emanating from Harrell's writing and arrangements. The rhythm section provides ample support throughout for the task at hand. Recommended.

Martin Milgrim

Bobby Hutcherson: Live at Montreux. Woody Shaw, trumpet; Bobby Hutcherson, vibes; Hotep Cecil Bernard, piano; Ray Drummond, bass; Larry Hancock, drums. Producer: George Butler (original release), Michael Cuscuna (reissue). Recording engineer: Chris Penycote. Blue Note CDP 7243 8 27819 2 9

Kenny Barron: Other Places. Ralph Moore, soprano & tenor saxophones; Bobby Hutcherson, vibes; Kenny Barron, piano; Rufus Reid, bass; Victor Lewis, drums; Mino Cinelu, percussion. Producer: Joanne Klein. Recording engineer: Jim Anderson. Verve 314 519 699-2

'he above sessions feature the premier vibraphonist Bobby Hutcherson, one as a leader at a prominent jazz festival in 1973, the other as a featured sideman at a studio date two decades later. Hutcherson came up in the early '60s, fast becoming a highly visible and respected member of the justly renowned roster of musicians who recorded for the Blue Note label in its heyday. His style, while emanating from the Milt Jackson bop inspired school of vibraphone artistry, is quite distinctive. It is marked by fleet execution, harmonic adventurousness and intense lyricism.

The Montreux date catches Hutcherson during a period in which he was very under-recorded. His association with George Butler, mostly for the Columbia label, was to result in a series of dismal recordings during the mid 1970s that were calculated to appeal to a wider, commercially oriented audience. Fortunately, this recording, done in a live setting in Europe, finds this vibraphone master playing at a peak creative level in a performance totally devoid of the overt pandering to commercial considerations that were to mar his later recording efforts. The appearance of the underrated Woody Shaw on trumpet results in a rewarding collaboration that reveals considerable chemistry between the two men. Only three of the four extended compositions had previously appeared on LP, and only in Europe and Japan. This CD therefore marks the first American release of this highly accessible and stirring music. Recommended without reservation.

The Kenny Barron date, done nearly twenty years later in a studio setting, finds Hutcherson as emotional and technically adroit as ever. Hutcherson appears on all but one track (a sensitive ballad duet for Barron and bassist Reid), serving as the catalyst for much of the swinging intensity that characterizes this session. To be sure, Barron, a master post-bop pianist highly in demand in the current fertile New York jazz scene and the last regular pianist for the late Stan Getz (who referred to Barron as the "other half of my heartbeat"), more than carries his own. Indeed, six of the nine compositions played here are Barron originals, all of them serving as willing vehicles for wonderful improvisation. The early Coltrane-inspired soprano and tenor saxophonist, Ralph Moore, is also stimulated to play with a vigor and creativity not always apparent on his

own dates as leader. Also recommended.

Martin Milgrim

Charles Mingus, Jazz Portraits. Booker Ervin, tenor saxophone; John Handy, alto saxophone; Richard Wyands, piano; Charles Mingus, bass; Dannie Richmond, drums. Producer: Nat Hentoff (original release), Michael Cuscuna (reissue). Recording engineer: Rudy Van Gelder. Blue Note CDP 7243 8 27325 2 5

n his engaging autobiography, To Be Lor Not to Bop, Dizzy Gillespie relates that in the midst of one of his periodic "campaigns" for the presidency, he stated that he would appoint Charles Mingus as his Minister of Peace. That's because Mingus would sooner take a "piece" out of anybody acting badly than anyone else Diz could think of. This legendary volatility was also reflected in his music. He pioneered the concept of extended composition in jazz, whereby beauty and poignancy would startlingly emerge from the juxtaposing of contrasting thematic material.

On this session recorded at the Nonagon Art Gallery in New York City's Greenwich Village in early 1959, the radicalism that Mingus was beginning to be known for is not much in evidence. Although the group played an extensive amount of music that evening, all that was salvaged were the two ballads and two blues pieces contained on this compact disc. Nevertheless, there is much to dig and admire here. Nonessential Mingus is still leagues ahead of much of what passes today as state-of-the-art jazz.

For those neophytes who may now be getting into this founding father of the jazz avant garde, considerable enjoy-

ment can be obtained here. For example, on the achingly beautiful "Alice's Wonderland," we hear the first rendition of a composition that was to appear on various subsequent recordings under other titles (e.g., "Diane"). In addition, we hear the youthful fire of two Mingus "regulars" of the late '50s, John Handy and Booker Ervin. The critical consensus concerning the high quality of Ervin's tenor playing with Mingus—listen to that southwest Texas roar on "No Private Income Blues"—should also be extended to Handy's alto saxophone within the Mingusian fold. Mingus' music is, and has always been, about emotion, vitality and a healthy respect for tradition. No doubt these qualities may be more amply displayed in his more seminal recordings, such as Pithecanthropus Erectus or Blues and Roots, to name just two of the significant recordings in the Mingus canon. However, this recording can stand proudly in any jazz collection.

Martin Milgrim

Eric Reed, It's All Right to Swing. Wes Anderson, alto saxophone; E. Dankworth, trumpet; Reed, piano; Rodney Whitaker, bass; Gregory Hutchinson, drums. Producer: Delfeayo Marsalis. Recording engineer: Patrick Smith. MoJazz 374637006-2

As unfair as it may sound, the title of this CD gave me a bad vibe as soon as I saw it. Knowing that Reed has been a steadily employed pianist for Wynton Marsalis' various groups, I immediately sensed that the sentiment expressed was that of the renowned trumpeter himself. Based on his past statements concerning the state of jazz, the implication is that much of the modern jazz of the past twenty-five years has not swung and is not deserving of critical respect. What Wynton

and his acolytes are saying is not that it's all right to swing—after all, who can argue with that?—but that only jazz steeped in "the tradition" can truly swing, and therefore other jazz forms are invalid. In effect, these so called "young lions" condescend to, if not outright reject, the avant garde generation that arose in the mid '60s, erroneously implying that because those radical players had apparently rejected bebop, they did not swing.

Judging by the tepid sounds issuing forth from this recording debut by Reed, save us from those who would presume to define what swing is or is not. Of the ten pieces performed in this session—all but three composed by the

leader—only "Boo Boo Strikes Again" comes across as a genuine finger snapping cooker with its engaging, convoluted line. Otherwise this is a desultory set that is further marred by a muddy recording of Whitaker's acoustic bass.

Reed states in the liner notes that Ahmad Jamal is his "favorite pianist. Period. Then there's everybody else." Jamal's influence is unmistakable in Reed's playing, but aping this particular master of swing does not guarantee capture of that elusive quality by the student.

Martin Milgrim

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Hilton Ruiz, Heroes. Charlie Sepulveda, trumpet; David Sanchez, tenor saxophone; Steve Turre, trombone; Tito Puente, vibraphone & timbales; Ruiz, piano; Andy Gonzalez, bass; Ignacio Berroa, drums; Steve Berrios, timbales; Carlos Vales, Giovanni Hidalgo, congas; Joe Gonzalez, bongos. Producer: John Snyder. Recording engineer: Jack Renner. Telarc CD-83338

ilton Ruiz is a gifted pianist who Lhas been able to thrive musically in the cross cultural milieu of his native New York City. As a teenager, Ruiz's talent was formidable enough to allow him to play with such jazz notables as Freddie Hubbard, Joe Henderson, and, for a lengthy period thereafter, with Rahsaan Roland Kirk, at which time I had occasion to witness his exceptional pianistic skills. He has always been able to bring his ethnic roots to the jazz idiom to make music that is not only rhythmically attractive but improvisationally interesting as well.

As a leader, Ruiz has usually chosen to populate his recording groups with a generous amount of percussion instruments endemic to Latin music. Additionally, the horn players on his dates, particularly the saxophonists, are men who have made their mark as leaders and improvisers of exceptional skills. They include Sam Rivers and George Coleman who were on several recordings that Ruiz made for the RCA Novus label between 1986 and 1991.

On this date for the Telarc label, Ruiz is again able to come up with a convincing musical stew by combining the ingredients of Latin rhythms with some great compositions of the acoustic jazz tradition. *Heroes* refers to jazz influences who are present on this date

either as composers or as subjects to whom tribute is paid. Thus, four of the nine pieces performed are originals by Charlie Parker, Dizzy Gillespie, Miles Davis and Herbie Hancock, while Ruiz's compositions evoke the spirit of Sonny Rollins and Max Roach, among others.

Ruiz continues his practice of choosing above-average saxophonists by employing the young but very capable David Sanchez. Additionally, Tito Puente, the much respected Latin band leader of long standing, does Ruiz an honor by joining in on two tracks, where he plays the vibes with much enthusiasm and skill. As for recommendation, this CD serves to re-emphasize the versatility and talent of Hilton Ruiz and is a pleasure to listen to throughout.

Martin Milgrim

Stanley Turrentine, Ballads. Various personnel from seven sessions recorded for Blue Note records, 1960-1984. Compilation producer: Michael Cuscuna. Blue Note CDP 07777 7 95581 2 4

C tanley Turrentine came up in the Dearly '60s, initially making his mark as an exciting young member of one of Max Roach's stellar groups. He had exceptional promise, as would be expected of someone taking over the tenor saxophone chair from such previous Roach luminaries as Sonny Rollins, Hank Mobley and Clifford Jordan. During that decade, he made more than 20 full LP recordings for the illustrious Blue Note label, gradually changing the emphasis of his approach from that of unabashed cooker to "soulful" tenor stylist. You can determine the soul quotient of an artist by the number of grunts of the all-knowing "yeah" that are elicited from the

audience during a live set. By 1970, Turrentine was getting more than his full share.

Most musicians will tell you that the mark of a genuinely creative jazz artist is how well he or she handles a ballad. The interest of the listener must be captured without resort to finger snapping rhythms or fleet, technically demanding runs. True jazz balladeers—Ben Webster or Sonny Rollins, for example—sustain the listener's attention by the degree of subtlety with which they vary nuance of tone and explore the harmonic wilderness of a

piece. Turrentine's ballad approach strikes me as unbearably lethargic and practically devoid of any interesting improvisation. On the nine well-known standards chosen for this compilation, one note of the melody inexorably follows the next, Turrentine's heavy, syrupy sound veering at times dangerously close to instrumental pop. Yeah, unless you dig Stanley (in which case, a scattershot compilation will most likely not interest you), you can forget this one.

Martin Milgrim

Audiophile Releases From David Manley

Richard Wolter

Hardware designer David Manley of Vacuum Tube Logic, in what is obviously a labor of love, has produced a battery of recordings utilizing a specially designed studio and custom equipment. For once in the field of "audiophile" recordings, many show considerable artistic as well as sonic merit. Rhythm and percussion are featured prominently in the early releases of the series, as you will find out when perusing the reviews.

Manley has designed a 40' x 30' cathedral ceiling studio finished in natural wood with tuned, resonance absorbing slots. The floor is rubber over particle board over concrete, and the room has a reverb time of 1.5 seconds. The microphones are custom designed "large capsule" condenser stereo mikes with two capsules per unit to allow the pick-up pattern to be continuously variable—the most often used mode for these recordings being the classic figure 8, Blumlein crossed pair configuration. They feature 3 micron gold

deposition mylar diaphragms, and are transformerless, with 8 triode tubes built into the microphone body in the stereo version.

A 15 ips Studer C37 tape deck with Manley tube electronics, flat from 20 Hz to 20 kHz, serves as the mastering machine, and Manley is candid enough to point out in the liner notes that digital masters, made simultaneously at the sessions, lacked the "naturally rich and faithfully sonorous accuracy of analogue recording at its best." The decision was therefore to make the CD releases from the analogue masters using Manley's 20-bit A/D converter.

The sound is state of the art all the way. There is gobs of depth and width. The sound is warm, rich, and intimate. Instrumental placement is precise and dynamics are excellent. I have only one quarrel and that is with the balances on the female vocal recordings—which we will discuss later. As of mid '93 there were 20 jazz and pop re-

leases, but only the first twelve or so have been issued on vinyl. As good as the CDs are, the (all-analog) records offer the added palpable presence record lovers are familiar with.

Vital records can be ordered from Vital Records, 13880 Magnolia Avenue, Chino, CA 91710; 909-627-4256 or 613-1324; fax 909-613-1326. CDs are \$16; records (all double albums) are \$25.

Todd Cochran: Todd. Cochran, piano, vocals; James Leary, bass; Clayton Cameron, drums; Michael O'Neil, acoustic guitar; Munyungo Jackson, percussion; producer & engineer, David Manley on all issues; Vital 001.

Todd is the simplest instrumental grouping in the set. Piano, bass, and drums has not lost its appeal, as long as the pianist is creative, and Cochran is. The release has eight of his own compositions, which are interesting if not outstanding. "A New And Old Poem" (solo piano), "Lights Out," and "People In The Night" (with a brief vocal part) are the best of these. Solo piano on three tracks and added percussion and guitar on two keep the ensemble sound varied.

My favorite track on the CD is Billy Strayhorn's ballad "Chelsea Bridge," which is not often heard and is played sensitively by Cochran, with good brushed cymbal work by Cameron. Cochran has a good harmonic ear and his solos are almost always pleasing on this CD (as well as his subsequent appearances in this series with other leaders). A couple of solid selections from the great jazz composers in place of some of his own compositions would have made this a really hard-hitting session. As it stands, it's still a good one.

Munyungo Jackson: Munyungo. Jackson & 6 others, percussion; Todd Cochran & Otmar Ruiz, piano; Michael O'Neil, guitar; Pedro Eustacio, flute; Robert Greenidge, steel pans; Sekou Bunch, bass; Rayford Griffin, drums; Vital 002.

This is excellent. Jackson avoids obvious percussive pyrotechnics and allows his soloists to float over the battery of percussionists to good effect. They set up widely varied styles of pulsing, sexy, contrapuntal rhythms whose influences are South American, Caribbean, and African. "Columbiana" opens the disc in 6/4 time with a fast, shuffling rhythm that is intricate and yet relaxing. O'Neil solos well and the influence is distinctly South American. "So Happy" sounds it. A Caribbean carnival rhythm sets the mood for beautiful soloing from Greenidge on the steel pan drums. I haven't usually enjoyed this instrument—except here. The tune is really infectious and keeps your body moving to the rhythm.

"Trees," replete with bird calls and other sound effects, is rhythm for the head. A slow, repetitive beat and guitar solo begins to mesmerize until added percussionists turn things sensual and mercurial. "Peter's Bells" was an improvisation during this date and uses African agogo bells, steel pan drums, and piano to create a unusual and musical sound. Finally, the jazz classic "On Green Dolphin Street" receives multi-rhythmic treatment to good effect and gives you a different feel for the composition. A very good job all around and a buy recommendation for this session.

James Leary: James Leary, John Clayton, Reggie Hamilton, Al McKibbon, Fred Tinsley, upright string bass; Todd Cochran, piano; Clayton Cameron, drums; and others; Vital 003

James Leary: James II Leary, bass; Eddie Harris, tenor & vocal; Billy Childs, piano; Ralph Penland, drums; Vital 005

James (1) has just the combination of instruments to bore and thump you out of the room. Five double bass players. Wonderful: an audiophile special. But wait! They're not all thumping at once. They're using bows to carry the melody. And a piano. And they're varying the number of instruments playing at one time as well as the tempo, and it doesn't turn into a boom contest. So, yes, you can have an interesting recording in this format. James Leary deserves full credit for taste in this regard.

The sound is not too warm, as one might anticipate. In fact, it's a little leaner on this session than on the others, and that's probably a necessity with five basses. There are lots of little finger work sounds to provide positional clues. Certain aspects of depth perspective on this recording are startling.

The music is good; the playing is straight ahead mainstream stuff. Yet, the sound of a bowed bass provides a lonely, introspective feeling not often encountered in jazz. The last musician I remember who experimented extensively with a similar sound was Chico Hamilton (who used a cellist on several recordings in the '50s and '60s). Get this one if unique instrumentation interests you, and as a demonstration piece.

On James II, Leary loses the other four bassists and heads a classic quartet configuration. Tenor man Eddie Harris was a gifted practitioner in the "soul" school of jazz in the '60s and early '70s until he began singing on his records and selling out to commercialism, recording some god-awful material with

Les McCann. Try to find *Cool Sax*, *Warm Heart*, (Columbia CS 8968) or *The Electrifying Eddie Harris* (Atlantic SD 1495) for examples of soul jazz at its very best.

Harris seems to be getting back to straight playing, although on most cuts where he is present his solos are curiously conservative in execution, even on Sonny Rollins' "Oleo," ostensibly an ideal tenor vehicle. John Coltrane's "Spiral" belongs to him, however. His playing is free and emotional, his solo long and involved. He also plays sensitively on James Leary's ballad, "Hold My Hand."

It is Billy Childs and James Leary that carry most of the material. Childs has a light, fleeting touch on the piano, and Leary again displays the good taste to be conservative with the sound and volume of his instrument. He picks up the melody and solo responsibilities equally between plucked and bowed bass. The proceedings are varied and consistently interesting. A buy recommendation.

Sekou Bunch: Sekou Bunch, fretless & tenor (electric) bass; Karen Briggs, violin; Jim Oppenheim & Keith Fiddmont, saxophone; Nick Smith & Tom MacMorran, piano; Doc Powell & Kevin Turner, guitar; Nolan Smith, trumpet; Rayford Griffin, drums; Bill Summers, percussion; Keith Jones, fretless bass; and others; Vital 004

I can't get too excited about this session. The first four tunes are throwouts, exhibiting elements of "contemporary" jazz: i.e., funk, simple latin and fusion. We don't get down to business until track 5, and some of the jazz classics such as Herbie Hancock's "Dolphin Dance," Miles Davis' "Seven Steps To Heaven," and Wayne Shorter's "Footprints." Even with these, I get the feeling that it's too much of a run-through. There doesn't

seem to be inventiveness in the conception or soloing. It's not bad, but there are no surprises. Only John Coltrane's ballad "Naima" seems to deliver the proper respect and feeling. It's played straight and avoids clichés. Perhaps the slow tempo allows the musicians to drop pretenses.

Doc Powell: *The Doctor* Powell, guitar; Rodney Franklin, piano; Reggie Hamilton, bass; Michael Baker, drums; Vital 006

Listening to the first cut on this recording, "All Right Now," one is immediately struck by the similarity of Powell's fingering and sound to the late giant of the amplified guitar, Wes Montgomery. The songs chosen for the date are also typical of Montgomery's later (Verve) years—breezy jazz pieces with a light funk beat. They make allaround pleasant listening, and they swing with a care-free mood.

The Stevie Wonder hit "Isn't She Lovely" is begun a capella at a slow ballad pace before the rhythm section hits, the tempo picks up and Powell demonstrates his chops on guitar. He utilizes a funk beat on this number, but it seems restricting in that funk seldom allows solos to develop as well as they could absent the dominant, restrictive beat. Witness: "Maiden Voyage," which delves deeper into real musical development of the theme.

This album is good casual listening and will appeal to those who don't care for abstract forms of jazz.

Louis Verdieu: Louis Verdieu, vocals; Deron Johnson, piano; Sekou Bunch, bass; Juan Quintero & Alan Yoshida, guitars; Karen Briggs, violin; Bennie Maupin, flute & saxophones; various percussion & background vocals; Vital 007

Don't much like this genre of music, yet at the same time I will step outside my personal tastes and say that it is an excellent performance, and can recommend it to those who like Caribbean music. I find the West Indian (Haitian in this instance) accent and style of phrasing cloying, and this is a vocal recording. There's a feeling of demanding insistence here, though it is not explicitly expressed in the lyrics. That's what I don't like; I know others will not feel the same way.

What I do like are the multi-layered rhythms, Verdieu's use of the voice as a percussion instrument in the up tempo numbers, and his use of voice as a solo instrument in the slow tunes. Be aware that this is not singing in the bel canto style which, in America, spawned the Broadway musical, swing and bop era jazz singers, and influenced all popular singers upthrough the present. That style stressed a precise and agile vocal technique along with ease of delivery, purity, evenness of tone-i.e., "naturalness." This is the voice as an instrument in a distinctly African tradition. It can be engaging.

Listen to "Give and Get." It got my foot tapping 50 seconds into the tune. I count three separate rhythms under his voice, which is used as a fourth rhythm element. A vocal chorus eventually adds a call and response factor. The whole thing really cooks, all the rhythms reinforcing each other. "Love Is The Light" is taken at a relaxed pace, and Verdieu benefits from violin obbligatos from Karen Briggs (whom we will get to later). His voice weaves itself into the melody, as it does on "Come Back Tomorrow" to good effect.

So there are strong attractants on this one. An excellent performance for the attuned, but an acquired taste.

Toolbox: Toolbox David Garfield, piano; Michael O'Neil, acoustic guitar; James Earl, acoustic bass guitar; Larry Klimas, tenor & soprano sax; Walfredo Reyes, drums; Vital 008

Toolbox: More Toolbox personnel as above except John Leftwich replaces James Earl; Efrain Toro and Art Rodriguez replace Walfredo Reyes; Vital 014

The first CD is your generic latin, generic fusion, generic "contemporary sounds" group. The only problem is . . . they're . . . generic. Compositions go nowhere. For the brainless.

Well, something happened between I & II. There's been a vast improvement in musical taste. Fellow reviewer Wally Chinitz stunned me when he recommended More Toolbox. He had played his copy before I heard mine, but I couldn't believe we were talking about the same group. I don't think it was just the personnel changes. The material is much stronger and the band doesn't try to play every style under the sun; they are grounded much more in straight jazz. The solos are better, perhaps because the players are left in one mode long enough to develop their ideas. The arrangements are better, everything is better.

Cedar Walton's "Ugetsu" leads off the session. It's an up-tempo bop number with good soloing from, in turn, O'Neill, Garfield, Leftwich, and Klimas, who builds a fair amount of excitement with the former two players comping in the background. "Memories Of Rio" is a smooth samba, a nice change of pace, and at least as interesting as any other tune in this style.

"Ancient Temple" is a slow mood piece with bowed bass and some special effects with a recurrent theme dividing the solos. It has a haunting quality and communicates the "an-

cient" quality in it's title. "Roberto" begins as a latin salsa number, but becomes more of a Spanish influenced jazz piece with the guitar soloing of O'Neill.

There's more, including a beautiful ballad titled "Just For The Moment," but I think the point to make is that on this second release, the compositions and rhythms allow the players more room to think and stretch out. If you want a good jazz group on an audiophile label, buy this one and pass on their first issue.

Karen Briggs: Karen Briggs, violin; Milcho Leviev & Nick Smith, piano; Jimbo Ross, viola; Bennie Maupin, soprano sax; Nedra Wheeler, bass; David Romero & Ronnie Gutterez, percussion; Russ Henry, drums; plus 3 additional violins; Vital 009

As a soloist Karen Briggs is one of the best, but she needs to take tighter control of the ensemble and refine her selections of tunes and rhythm. I exclude tracks 1, 2, 4, and 9 when I plop this disc in the CD player. "All Blues" is undermined by the selection of a rhythm as old as it is corny—seldom heard since Martin Denny. "Paisley" goes nowhere, "Homecoming" is fusion, and "That Thang" is obvious and oppressive funk.

Having said that, I can tell you that this is one of the best releases. The sound of Briggs' violin makes a wonderful contrast to the rhythm section and the dark, rich sound of the rest of the ensemble. Briggs solos well. She's got good fingering technique and good articulation on her instrument. Her sound is somewhat starker than, say, Stephane Grapelli, and she doesn't use as many flourishes, but her solos make sense and she is clearly exploring the music as she goes. I find myself putting down my book or leaning back at my desk and listening.

It's odd. A simple rhythm can confer freedom to the soloist; an intricate, multi-layered rhythm section can stimulate and involve. But a commercial beat can restrict the soloist and shut down the listener. I really want to hear Karen again, in more serious surroundings.

Bill Summers: *Iroko* Summers, percussion & vocals; 16 additional vocalists in lead, background and chorus; 10 assorted percussionists; Bobby Rodriguez, trumpet; Karen Briggs, violin; Nick Smith & Joe Rotundi, piano; Mike Turre, sax & flute; Vital 010

This release is a mix of African, Afro/Cuban, and Latin tracks. The most basic are the African, such as "Eleggua," in which the call and response of the voices is placed over the percussion. African percussion is strangely regimented to these jazz ears—it doesn't "swing," but can be fascinating nonetheless. The sound displays a nobility of feeling, is multirhythmic, yet the "songs" show little harmonic or melodic development, being basically chants.

Not so with the Afro/Cuban "salsa" cuts. Summers' group plays with the feeling of a latino salsa band, the rhythms are syncopated, get your body moving, and there's good soloing from Karen Briggs (who gets better arrangements than on her own album). "Rompe Saraguey," "Oue Me Importa" and "Oye Hispana" are my favorites.

Splitting the difference in feeling are the latin (South American) cuts such as "Helena." With the cool samba feeling, it provides excellent contrast to the rest of the tunes. This is a well varied program, well played, which, in a line of albums which feature percussion, give it an even more prominent position.

Lesley Olsher: Lesley Olsher, vocals; assorted musicians; Vital 011

Lesley Olsher is the wife of *Stereophile* hardware reviewer Dick Olsher. Enough said.

Vickie Leigh: Vickie Leigh, vocals; Bruce Bishop & Josh Sklair, guitar; Frank Crawford, piano & organ; Ron Ross, bass; Jack Le Compte, drums; Vital 012

Vickie Leigh: *More Vickie* personnel as above except Bill von Ravensberg replaces Ross; Vital 018

I have to begin by taking issue with Manley's miking of the singer. There has been an obvious attempt to place her within the same acoustic space of the ensemble (which, of course, she is), possibly using the same mike—though the liner notes don't say. I applaud the objective, but not the result. She's standing back too far and her voice does not project enough. Stand her closer to the mike or, if that can't be done, give her her own mike. The same goes for Kate McGarry (Vital 015) and to a slightly lesser extent for Karen Knowles (Vital 017). At times the vocalists are half buried by the instruments and, though well placed on the stage, they are never "there" enough to be satisfying.

My reaction to Ms. Leigh's singing exactly parallels my tastes in music. The r&b and modern pop numbers I can pass on; the straight ballads and blues I like. On *Vickie*, "When Love Comes In" is "straight ahead and from the heart," as the liner notes say. It's the best cut on the album, the classiest material, the best melody. Most of the rest of the tunes are blue, which are done OK, but not memorably. Leigh has a slightly husky, burnished voice that is attractive.

More Vickie has much better balance between the singer and the ensemble, but most of the tunes tip heavily toward modern pop and r&b, so I'll pass. And why do white singers adopt a drawl which they do not normally possess when singing this stuff? Does it make them sound more knowledgeable and soulful? No, just less genuine. How about an album of slow and medium tempo love songs?

Josh Sklair: *Josh* Sklair, guitar; Frank Crawford, piano & organ; Ron Ross, bass; Jack Le Compte, drums; Vital 013

And now for something completely different. Josh is a white guy, long blonde hair, photographed on the cover against a blue, cloudy sky. You'd think it was a folk album.

It's blues and some light jazz tunes. The blues are the best. He's got the feeling: "Wake-up Call," "Key To The Highway," and "Sudden Blue" are played at a nice slow tempo with a lot of soul. The piano player is right there too. The last of these is a 10 minute stretch out and the best cut on the album. "Someday We'll Be Free" and "Beyond Words" are good modern ballads.

The jazz tunes are played in the Wes Montgomery fashion, as with the Doc Powell recording (above). They're casual listening, not bad, a change of pace.

Kate McGarry: Easy To Love McGarry, vocals; Karen Hammack, piano; Eric Von Essen, bass; Paul Kreibich, drums; Vital 015

Since the advent of electrical recording, pop and jazz singers have learned to use the microphone as part of their vocal instrument. The projection required of opera singers has not been required in popular music for decades. Kate has a small voice and, as with the first re-

cording of Vickie Lee (above), David Manley has her half buried in the ensemble. There are moments in interpreting songs when the singer wants to sing softly and intimately, and must still be heard. The piano and bass are louder than Kate is. The intimate effect is ruined by having to listen through the ensemble to the (not so) low level things happening with her voice.

She needs to take one and one half large steps closer to the microphone, or if that spoils the pickup pattern for the rest of the ensemble, put a mike in her hand and purist recordings be damned. You can't sacrifice the featured instrument for a soundstage. I like her as a singer, but it took me awhile to realize I did because the distant perspective makes her sound emotionally detached from the material.

And it is an excellent selection of material. "Autumn Nocturne," "Get It Straight," "The Thrill Is Gone," "Haunted Heart," and "The Night Has A Thousand Eyes" are little heard classics of jazz and popular literature. I doff my cap to her for choosing these songs.

I hear a young singer who is good now and will get better. There are lots of things she does with her voice in interpreting lyrics that tell me so. Her small voice limits her somewhat when she tries to belt out the uptempo things, but she is excellent with interpretive ballads and medium tempo tunes. It's very difficult to find a young person who can do this material any more. Those born after 1950 heard nothing on the radio but rock and just don't have the ear. Kate does, has studied jazz, and appears to be building her career with uncompromising material.

She deserves another shot from David Manley, more intimately miked. Artistically this is a buy, but you'll have to

listen through the instruments to get to her.

Jim Dawson: Independence Dawson, vocals, guitar, piano; Sam Sklair, arrangements; Mick Gaffney, lead guitar; and 6 others; Vital 016

Let me begin by saying that the balance between singer and band is correct on this issue. Dawson has gotten a big push from *The Absolute Sound* which wrote up the session in detail. The date was partially funded by *TAS'* Fund For Recorded Music.

Dawson is a folk/rock balladeer and all the lyrics sung here are written by him. He has a light, breathy voice of limited range, but is pleasant to listen to. The songs are not particularly strong material. They contain the clichés of the genre and the melodies aren't strong either. That's not to say that it's bad. The tunes move along one after the other; you listen with half an ear because they don't really involve you, and then it's over. After listening I couldn't remember much about it. I guess indifference would be the word to sum up my reaction to this CD.

Karen Knowles: Moonglow Knowles, vocals; Sam Sklair, arranger; Frank Crawford, piano; and 10 others; Vital 017.

Australian Karen Knowles proves to be a good pop singer and is not as adversely affected by her distance from the microphone as Kate McGarry, but the minimization of the voice is still noticeable to those of us who still listen to vocal recordings. After a weak beginning on "Moonglow" done with an incongruous samba beat, and "Espresso," a throw away R&B flavored tune, we get down to business with the standard "There, I've Said It Again." It's sung pretty straight: sweet and plain and you sense she's finding her groove. "Nature Boy," "Every time We

say Goodbye," and (the concluding version of) "Moonglow" are also done in the same manner, but the singer seems more focused in the latter tracks.

There are some interesting, little-known songs which demand your attention. "Don't Say," a tune with sensual connotations, and Jim Dawson's love song "Under The Moon," which Karen does much more successfully here than Jim does on his own album, are two examples. "What's Taken Your Smile Away?" is another example of good, unknown material. A few other tunes aren't so worthwhile ("Art Of Love"), so the total effect of the album is not as great as it could have been.

Knowles sings "pretty," by which I mean that she places the emphasis on presenting a plain, wholesome sound. Her voice is nearly vibrato-less (after the fashion of the '70s folk singers) and reinforces this effect. She is good, but could be much better if she concentrated on interpreting the lyrics of these songs and developing their feeling.

Main Liners: Main Liners Brown Burnett, vocals & saxophone; Jim Christopher, Bruce Bishop, Josh Sklair, guitars; Frank Crawford, keyboards; and 4 others; Vital 019

This is bottled, middle-of-the-road r&b material without a hint of the raunchy, gutty feel it should have. Why record it? It underscores the trend in Vital's recent releases of recording friends (and wives and friends of audio reviewers) rather than stretching out for the artistically adventurous.

Sam Sklair: *Virgo* Sklair, clarinet; Josh Sklair, electric & acoustic guitars; Larry Klimas, tenor; Bob Summers, trumpet & flugelhorn; Kate McGarry, vocal on two cuts; and 4 others; Vital 020

Jazz has been defined as the "sound of surprise," which points to the key element of jazz: spontaneous composition (improvisation). There isn't a note on this jazz release which is not predictable. Most of the tunes have more than a hint of the dance band to them. It's all pleasant to listen to as background music, but nothing you'd pull off the shelf to hear again.

As you can tell, I have a definite preference for the earlier releases. It is in this group that producer Manley strove for the adventurous and the unusual. I recommend Vital issues 001, 002, 003, 005, 007, 009, 010, and 014. You can put all these in the regular music section of your library rather than the schlock—audiophile section.

ON IMPULSE

Chico Hamilton Quintet: Man From Two Worlds Hamilton, drums; Charles Lloyd, tenor & flute; Gabor Szabo, guitar; Albert Stinson, bass; George Bohanon, trombone (4 cuts); 1963; Rudy Van Gelder, recording engineer; Bob Thiele, producer; Impulse (GRP) GRD-127

hico Hamilton is my nomination for all-time underappreciated _ drummer. Hamilton enjoyed popularity during the height of the West Coast jazz scene. His playing was featured in the movie "Sweet Smell of Success." but working on the west coast also diminished his influence when artistic influences shifted back east. Part of his predicament may also have been that he hired a lot of white guys to play with—Larry Coryell, Gabor Szabo, Albert Stinson, Fred Katz (cello), Jim Hall, and more. If you think racism isn't a problem in jazz, you are distinctly mistaken. It probably kept him from achieving the degree of recognition he deserved in the jazz press and among the cognoscenti.

Hamilton's drumming style was unique in that he set up a spider-web bed of sound for his soloists. He was an impressionist drummer, driving the ensembles he led through his use of sound, color, and a kind of inexorable

droning feeling in place of the usual pyrotechnics at the drum set. It gave many of his sessions an eastern, Third World feeling.

His groups played in true ensemble style—chamber jazz, as it were—in the days before chamber jazz meant waiting three seconds between each note. His groups swung, yet were also concerned with arrangement, voicing, composition. This release was Hamilton's second for Impulse, one in which he allowed a rapidly developing Charles Lloyd to fill the roles of composer and arranger. Man From Two Worlds also contains four excellent tracks from Hamilton's first Impulse release, Passin' Thru (Impulse A-29). I wish they wouldn't do that—break up sessions to fill time available on CD. Better to let the time be short, keep the sessions together, and sell them at a bargain price.

Lloyd's own composition, "Forest Flower," is here, the expanded performance of which, three years later, would explode in a best selling album (Forest Flower, Atlantic SD 1473, vinyl). All the essential elements are condensed here, and while Keith Jarrett's support from the Atlantic LP is absent, Hamilton's intricate cymbal work and

Gabor Szabo's guitar playing impart a quicker tempo and tighter development of the themes.

Gabor Szabo's unique sound on guitar was a hallmark of most of the Impulse LPs during this incarnation of Hamilton's group. He favored a kind of single note statement of his ideas, with beautiful tone and a kind of quiver in the string that stood out in front Hamilton's sizzle bed of cymbal work. This kind of thing is heard best here on the title cut and on "Passin' Thru," where Szabo and Lloyd trade quick figures. If you can still find it, listen in particular to "Conquistadores" from El Chico (Impulse AS 9102, vinyl). It stands alone as the finest example of a Latin jazz jam in my collection—a very high energy driving force and a very loose, spontaneous feel. Hope it gets issued on CD. This will be an excellent introduction to Chico Hamilton for the uninitiated and should be an invitation to explore further. Buy it.

Elvin Jones: *Dear John C.* Jones, drums; Charlie Mariano, alto; Roland Hanna, piano (3 cuts); Hank Jones, piano (4 cuts); Richard Davis, bass; 1965; Rudy Van Gelder, recording engineer; Bob Thiele, producer; Impulse (GRP) GRD-126

I knew from the first few notes of this release that this was a gem I missed the first time around on vinyl. I commend it to you as a prime example of intelligent, accessible jazz and good sound. Elvin Jones was John Coltrane's regular drummer in the classic quartet that revolutionized jazz. 'Trane's group pushed out the envelope by giving each player an individual voice and the freedom to go in their own direction, seeking to synthesize unity out of (dare I say it?) diversity. In that role, Elvin Jones frequently played independently of Coltrane with great driving intensity, constantly shifting the

center of his timing through intricate cymbal and snare work.

Here, Jones takes one half step back, supporting the ensemble's playing, but retaining the devices acquired as a member of an experimental group. Dear John C. is dedicated to, but not played in the style of the Coltrane group. It includes a wonderful diversity of compositions including two excellent originals for the date, "Dear John C." and "Ballade."

Alto saxophonist Charlie Mariano is the main soloist on the date, and he is at the top of his form. On "Everything Happens To Me" and "Smoke Rings" he is supported only by bass and drums, and he supports all the melodic responsibilities as well as improvises inventively. His debt to Charlie Parker is obvious on the classic "Anthology," but his playing is not imitative. I haven't appreciated Mariano more than on this date. His playing is modern, yet it has a timeless quality that makes the proceedings seem very "right." Buy it.

Archie Shepp: On This Night Shepp, tenor; Bobby Hutcherson, vibes; Henry Grimes, bass; David Izenzon, bass (5 cuts); Rashied Ali, J.C. Moses, Joe Chambers, drums (various cuts); Ed Blackwell, rhythm logs; Christine Spencer, vocal (1 cut); 1965; Rudy Van Gelder, engineer; Bob Thiele, producer; Impulse (GRP) GRD-125

You have to pay attention to Archie Shepp. He's not a casual listen—especially during his early years when he used music to express anger, hurt, and revolution. *On This Night* is an effective blend of the avant-garde and the familiar. The title piece opens with some free-style poetry from Christine Spencer followed by some angular Shepp declaratives. A loping blue feeling is developed between the vibes and drums over which Shepp impro-

vises with the jagged, bleeding phrases he has made his style. Spencer returns for the close and you realize this has been a well thought out production in addition to being "merely" a modern jazz session.

Shepp put the techniques developed during his experimental period to good use in later years, bringing fresh insight to "Lush Life" (Montreux One, Arista Freedom AL 1027), an album of spirituals with Horace Parlan (Goin' Home, Steeplechase SCS 1079), and "Invitation" played under Siegfried Kessler (Invitation, Impro 04), all worth finding. He does the same thing here with Ellington's "In a Sentimental Mood." Those who don't like avant garde jazz at an uptempo pace should find a connection to his style through this ballad.

GRP has again juggled the tunes appearing on this CD. They have included some things that did not originally appear on the record album, but were recorded at the same session. and they have excluded "Gingerbread Boy," which did appear on the record but was recorded live at Newport, and shifted it to the New Thing At Newport CD. This was done to keep all work recorded in the same sessions together, but what will they now do with the remainder of Fire Music and Further Fire Music, the source of the added material? Confusing and tedious to report on. Perhaps a clear statement of intent for releasing the body of work of a given artist, included in the notes, would put collectors' minds at ease.

One more beef. I am all in favor of including alternate takes if they are worthwhile, but why are they programmed in succession? Sequence the tunes for the original play order—presumably there were artistic reasons for that order—and include the alternate takes at the end. These are CDs after

all, and if one is a musician or musicologist and wishes to study the development of a tune, one can program the player to play the takes in order. This spares the rest of us from hearing three "The Chased" and two "Mac Man"(s) in a row. Hear me guys? Thank you.

Ben Webster: See You At The Fair Webster, tenor; Hank Jones, piano ((5 cuts); Roger Kellaway, piano or harpsichord (5 cuts); Richard Davis, bass; Osie Johnson, drums; 2 additional cuts with Oliver Nelson band; 1964; Rudy Van Gelder, engineer; Bob Thiele, producer; Impulse (GRP) GRD-121

Those not familiar with the breathy, gentle style of Ben Webster will surely be pleased should they pick up this CD. This is an album of standards. Webster sticks close to the melody on all the cuts and the pleasure derived from this music is in his tone, his finesse, and the beauty of the song. Ellington's "The Single Petal Of A Rose" commends itself particularly well in this regard.

It's difficult to imagine a mood or setting in which playing a Webster date would not be appropriate and his talent has been completely ignored by the audiophile community. The sound on the majority of tracks here is good, though the acoustic envelope is on the dead side—not enough to keep you from buying this recording, but enough to notice. Rudy Van Gelder didn't always get it right.

For vinyl hunters, I can recommend At Work In Europe (Prestige P-24031), Live At Montmartre 1973 (Steeplechase 1008), and Ballads (Verve VE-2-2530, mono, but beautiful).

Shirley Scott: Queen Of The Organ Scott, organ; Stanley Turrentine, tenor; Bob Cranshaw, bass; Otis "Candy" Finch, drums; live, 1964; Rudy Van Gelder, engineer; Bob Thiele, producer; Impulse (GRP) GRD-123

We looked at Shirley Scott in issue two and recommended her "Cookbook" recordings with Eddie "Lockjaw" Davis on Prestige (available on vinyl). I'm glad to be able to recommend another fine example of "soul" jazz by Scott, this time in the CD format.

This music is heavily based on blues and gospel and stood in counterpoint to the avant garde music which Coltrane and others were developing in the early 60's. This is the music of the black clubs and bars and is immediately familiar to the listener because it embodies all the blues and gospel feel-

ing we've absorbed since childhood. Familiarity should not imply a lack of interest. Scott, and Turrentine on tenor sax, fully explore the medium and squeeze out every last drop of "funk" ("Mean, Angry, Nasty And Lowdown").

Scott has a less staccato attack at the organ than Jimmy Smith, sounding more like a traditional organist. Those who have not sampled organ based jazz are in for a treat. Turrentine is a less interesting tenor player than "Lockjaw" Davis was, but I never found my interest flagging. Bartender, another round of Pabst Blue Ribbons.

Richard Wolter



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Rock Block

Mark Block

I'm trying something new this time: Each album will be graded on its sound quality. This, I hope, will give you a more precise idea of where I stand on the engineering, and will free me to spend less time talking about sonics unless I feel like it.

Willy DeVille, Live. Produced by Willy DeVille and Philippe Rault; recording engineer (NY), John Harris; recording engineer (Paris), Steve Boyer. Mixed by Rik Pekkonen and mastered by Doug Sax. Fnac Music, 592254 WM. Sound: A-/A+

Willy DeVille, a New Yorker who affects an off-beat stage persona—slickedback pompadour, pencil-thin mustache, dandy attire and a vaguely French/Cajun slur in his gruff voice was an anomalous staple on the CBGB punk scene in the seventies, fronting the band Mink DeVille. His music, strangely enough, was never the least bit punky, relying instead on powerful, romantic anthems and sweet ballads. The timelessness of that approach explains perhaps why most of the punk bands have disintegrated while Willy continues to make exemplary rock 'n' roll. Exemplary, but not commercial. Still quite popular in Europe, Willy went through a bankruptcy in the eighties, and is without a U.S. label now. Hopefully, by the time you read this he'll have a distributor. In the meantime, if you have a local shop that'll order imports, put this CD at the top of your list. I think it's the best rock recording of last year.

If there's such a thing as cosmic balance, if the universe is a zero-sum

game, then maybe for every talented artist out there who makes it big, there's another who's just as talented but doesn't. That would explain why Bruuuuuuce plays to stadiums and lives in a big house in California while Willy DeVille plays small clubs and fights his way out of bankruptcy. DeVille is Springsteen without the hype. His voice is a cross between Dr. John and Tom Waits, and his music could fit right into a Springsteen or Southside Johnny set. In other words, it's fairly mainstream and easy to enjoy. (Again: Why did he not catch on commercially?)

Usually guys without a record company behind them give simple, oneman live concerts. But Willy, as I said, is still well known in Europe, and his live show is a big exception: He's got a seven piece group plus two background vocalists and a horn section! This band is hot—hotter than the pistol that fires at the occupants of "Lilly's Daddy's Cadillac" (the first cut).

The album is pieced together expertly from two different concerts, one at the Bottom Line in New York, one at the Olympia Theater in Paris, both in 1993. The two recordings don't match exactly—two different halls, two different recording engineers—but Rik Pekkonen of Ocean Way Studios in L.A. has done a brilliant job of making the pieces go together almost seamlessly. The New York recording has some slurred sibilance on Willy's vocals, along with a treble notch probably intended to tone down the "s" sounds. Otherwise it's excellent. The Paris recording, on the other hand, is just about perfect—probably the best I've ever heard. Absolutely reference quality.

Jimi Hendrix, Blues. Produced by Alan Douglas and Bruce Gary; engineered by Mark Linnet; liner notes by Michael Fairchild. Sound: Hard to grade. Let's put this one on the Pass/Fail system. Pass!

I see Hendrix as the Picasso of rock music, and if Picasso had his "Blue" period, then Hendrix had the blues, period. These tracks, mostly studio outtakes of blues standards ("Hear My Train A Comin'," "Born Under a Bad Sign," "Mannish Boy") and Hendrix classics ("Red House," "Voodoo Chile Blues") demonstrate that Hendrix, even while defining "psychedelic" with his literally flaming live performances, was a master bluesman.

The liner notes by Michael Fairchild are a dazzling piece of scholarship, full of insights, and the programming of this CD is especially well considered. For instance, "Catfish Blues," recorded in Holland in November of 1967, is followed by "Voodoo Chile Blues," recorded about six months later at the Record Plant, with Steve Winwood on organ, Jack Casady on bass and Mitch Mitchell on drums. Fairchild mentions that a demo tape from this session captures Jimi alone in "what appears to be a spontaneous evolution of 'Voodoo Chile' out of re-arranged fragments of 'Catfish Blues.'" He goes on to quote Track Records co-founder Chris Stamp: "Jimi was making these futuristic guitar sounds, but also you could hear almost the whole history of the blues in it. . . . " That pretty much sums up this album.

The recording quality varies, but the remastering here is first rate, with good tonal balance and beautiful transparency. Even while distortion, hum and assorted buzzings come through loud and clear, the CD has a see-through quality that draws you in with its real-

ism and makes the sometimes nasty sonics enjoyable. If there is good distortion, this is it.

James, Laid. Produced by Brian Eno; recorded and mixed by Benedict Fenner and Markus Dravs. Fontana/Mercury 314 514 943-2. Sound: B-

James is a cult Brit band, kinda folky, kinda rocky in a U2/Hothouse Flowers kinda way, who have now broken through in America with the title cut, which has become kinda famous for some relatively tame sexual lyrics that were altered for presentation on MTV and Saturday Night Live. "She only comes when she's on top" became "She only hums when she's on top" for our sensitive American sensibilities. Please—MTV should be ashamed. Half the time I tune in I see nubile, probably underage chicks in thong bikinis bumping and grinding on a beach. Some standards.

Besides the hit single there are several luscious tunes here, and a lot of quirky, painterly soundscapes that I grew to welcome. "Laid" was a great single, but the earnest "Say Something" is just as catchy. "Sometimes (Lester Piggott)," a jangly, rousing, romantic anthem, weaves powerful images through its chunky rhythms: "There's a storm outside / and the gap between crack and thunder / is closing in, closing in / The rain floods gutters and makes a great sound on concrete / On a flat roof there's a boy leaning against a wall of rain / aerial held high / calling Come on thunder, come on thunder." I still haven't figured out where jockey Lester Piggott fits in. "Five-O" is an intense slow-burn full of unanswered questions: "Will you marry me? / Can we meet the cost? / Is the power of love? / Worth the pain of loss?" The guitar solo reminds me of Lindsay

Buckingham in his Fleetwood Mac glory.

Brian Eno handled the production, and his minimalist, atmospheric signature is all over the album. I find the "atmos" a little too smoky for my taste, but did it get in the way? No, but just barely. The electronic, gauzy haze prevents the album from getting my audiophile stamp of approval, but James' music rings clear and true.

Shelby Lynne, Temptation. Produced, engineered and mixed by Brent Maher. Morgan Creek Records 2959-200 1 8-2. Sound: A-

Sometimes it helps for a reviewer to pin a label on someone with whom his readers may not be familiar, and with Shelby Lynne it's easy. Here's one: "A (hetero)sexy k. d. lang. Here's another: "A female Lyle Lovett." One more, although this one's a bit of a stretch: "A country Madonna." That last characterization stems not from her singing persona but from the seductive poses on the album foldout: a falling-off-theshoulder slip; short, tousled reddishblond hair under a beret accepting a sprayed-on evening dress; a close up of her smoke-filled lips pulling away from a six inch cigar. (I'm trying to compose myself now; talk amongst yourselves. Subject: Why does Country & Western music come out of a big city in the East?)

The real auteur here is Brent Maher, who not only did the producing and engineering but also wrote most of the songs. Further, he had the good taste to pick Shelby Lynne as his lead vocalist, and the good sense to position her as the star. Shades of Phil and Ronnie Spector. They've come up with a seductive mix of fairly un-kitschy country ballads and big, bouncy Western Swing tunes; it's no breakthrough, but it's smart and fun.

The liner notes proudly proclaim "This is an analog recording. ADD." The SPARS code on the back cover indicates AAD. Oh, well, it's a good engineering job. The big band brass is a little tame, and Shelby's vocals are mixed too far above the band for my taste, but there are absolutely no nasties here. It's probably as clean a recording as a modern studio can produce. Total time is only 34:13, which is typical of country music albums, but a big rip-off nonetheless.

Van Morrison, A Night in San Francisco. Produced by Van Morrison; recorded and mixed by Mick Glossop. Polydor 314 521 290-2. Sound: B+

Van's new live album was recorded last December at the Masonic Auditorium in San Francisco. Van has always been a Jekyl and Hyde in performance. I unfortunately witnessed his Hyde several times in the late seventies/early eighties. For a rocker he has always been too sensitive for his own good, and the least little thing seemed to send him into a pissy funk. When I saw him he was surly toward his band, disconnected from his audience and bored with his material. Thankfully, this album shows off Van at his Jekyl best.

Certainly Van's band on this gig helped him stay in a good mood. He thanks his bandmates frequently, never fails to acknowledge a great solo, and generally acts like he's enjoying himself something I thought wasn't in his nature. Haji Ahkba and Georgie Fame anchor the band, and "guest artist" appearances by John Lee Hooker, Junior Wells, Jimmy Witherspoon and Candy Dulfer liven up the proceedings immensely. Dulfer, who has played with Morrison before, gets enough funky sax solos here to fill a normal-length CD. I thought Dulfer would never live down the title to her hit album of several years ago, Saxuality, but she goes a long way toward restoring her reputation. She really wails—and proves herself more than just a pretty face. With a great body. And long blond hair. Named Candy. Make me stop. (My wife doesn't normally read this audiophile stuff, but if you are reading this, honey, it's only a joke!)

A Night in San Francisco barely squeezes onto two CDs; the length allows Van to include extended jams and medleys without recourse to editing, giving one a good feel for his live show. It also allows him to include a wide range of material; graphics on the back cover sum up the mixture: "ballads, blues, soul, funk and jazz." And oldies. Aging fans (like me) will appreciate the inclusion of "Tupelo Honey," "Moondance" and "Gloria." It's also nice to hear the band tear into Lester Young's "Jumpin' with Symphony Sid," followed a few minutes later by Van doing that funky James Brown thang on "It's a Man's, Man's, Man's World." By the way, "Beautiful Vision" is sung by one Shana Morrison. Daughter, I guess, and she does a beautiful job. Good vibes all around.

The live recording is smooth and clean, with good punch and dynamics. My only complaint is a lack of bottom. Bass lines and drums don't have the power and weight you'd hear live, but then again the recording doesn't have the distortion you'd be subjecting yourself to at a live show.

Bonnie Raitt, Longing in Their Hearts. Produced by Don Was and Bonnie Raitt; recorded and mixed by Ed Cherney. Capitol CDP 0777 7 81427 2 0. Sound: A

This album was criticized as a commercial sell out. Exsqueeze me? This is Bonnie Raitt we're talking about—she now practically defines "commercial." I

don't see this as selling out; her tastes and talents are simply in tune with what a lot of baby boomers want. She's one of rock's premier artists at the height of her creative powers.

Some old fans miss the guitar solos, but let's face it: She was never a great guitarist. She's got adequate technique coupled to a keen ear for catchy riffs. What really makes Bonnie the best in the business is her dazzling interpretive abilities as a vocalist and the classy arrangements with which she surrounds that voice.

The other criticism I heard about this album is that it contains too many Raittpenned tunes and not enough covers. Well, she does cover Richard Thompson's "Dimming of the Day," Paul Brady's "Steal Your Heart Away," and "I Sho Do" by Mabon L. "Teeny" Hodges and Billy Always. "You," written by Bob Thiele, Jr., Tonio K and John Shanks, is heart-wrenching and beautiful. But my personal favorites on the album are both written by Bonnie herself: "Cool, Clear Water," an uplifting song with a reggae beat and a great guitar hook, and "Feeling of Falling," a ferocious blues tune with Bonnie on organ cooking up a Booker T soul stew.

Don Was again produces here; why mess with success? The sound is excellent—smoother than the last time, although a mite hard sounding when things get busy. If you liked her last two Grammy-devouring albums, you'll like this one.

Run C&W, Into the Twangy-First Century. Produced by Bernie Leadon, Vince Melamed, Jim Photoglo and Russell Smith; engineered and mixed by Greg "Studio Burns" Kane. MCA 10727. Sound: A

This is a novelty record that actually sounds good with repeated playing. Here's the conceit: The Burns family from Harlan County, Kentucky, moves up to the Motor City. Meanwhile, the young Burns boys learn to play that sweet soul music the only way they know how—bluegrass style. It's hilarious, but it also works musically. Who'd know "Walking the Dog" and "Working in a Coal Mine" aren't traditional bluegrass numbers? Other tunes, like "My Girl" and "I've Been Loving You Too Long" are good in any style, while the banjos and fiddles add a charming sentimentality.

My favorites are a "Midnight Hour" done to the tune of "Wildwood Flower," and "Sweet Soul Music" highly embellished with some C&W injokes: "Spotlight on Tanya Tucker / Well, wouldn't you like to . . . be in her video?" The only cut that wears thin is the last one, a parody of "Achy Breaky Heart" called "Itchy Twitchy Spot." It doesn't fit into the concept, and it's only funny the first time. The CD runs a mere 31:39 (another C&W rip-off) so I guess they were short on material.

The "Burns Brothers" are Bernie Leadon (of the Dillards, Flying Burrito Brothers and Eagles) and the others listed above as producers, assisted by "Honorary Burns" Vassar Clements. The "extry-spacial thanks" credits give an idea of where these guys are coming from: "... Otis Redding, Otis Campbell, Ray Price, Ray Charles, Spike Jones, Spike Lee, Martha & Barry White, Isaac & Gabby Hayes, Wilson & Bobby Boris Pickett, ... Hank, Esther & Vanessa Williams, Tom & Bootsy Collins, Andy, Koko & Elizabeth Taylor ... Eddie & Audie Murphy."

The sound is a knockout—maybe too close miked for some, but it's a clean, transparent recording that'll show any system off to good effect.

Boz Scaggs, Some Change. Produced by Boz Scaggs and Ricky Fataar; mixed by Donald Dodd. Virgin Records America 7243 8 39489 2 5. Sound: A

The man who asked the world to loan him a dime in the late sixties has now given us back *Some Change*, and it has bought me a wealth of musical satisfaction. This album is as smooth as *Silk* (*Degrees*), right up there with Boz's best. For my money, this is the comeback album of the decade so far. I hear hits here. And Grammies.

"I'll Be the One," co-written by Boz, Michael Omartian and Robben Ford, is a potential "Adult/Contemporary" hit in the Boz tradition of "Lowdown." The album is full of variety, starting with a chugging, uptempo rocker à la Chuck Berry ("You Got My Letter"), moving on to a pretty Cajun number ("Fly Like a Bird") and into a soulful ballad ("Lost It"). The best song, "Sierra," is the sad but icy lament of a man hiding out from a bad love affair. The haunting melody makes it one of the most poignant songs I've heard in years.

The album was recorded in Boz's own studio in San Francisco with the help of Bonnie Raitt cohort Ricky Fataar. The credits are fairly simple: "Boz Scaggs did all the vocals and played all the guitars as well as synths, keyboards and the odd array of instruments lying around here and there. Ricky Fataar played all drums and percussion instruments as well as various keyboards, synths and so on." Helping out here and there are Booker T. Jones, Fred Tackett and Michael Omartian. The recording may literally be "homemade," but it doesn't sound it; I've been using it as a reference in my equipment evaluations because I like the music so much. And check out the soundstage on "Sierra." Booker T.'s organ images off into the next room. I love it.

A Living Past, Music Maker Patron's Sampler. Produced by Timothy Duffy; remastered by Mark Levinson. Music Maker 9401. Sound: Pass!

I'm going to turn this review into a commercial and quote from the liner notes:

"Music Maker was founded in January 1994 to help forgotten blues and folk musicians living in the South who represent the end of an era. Now in their 70s and 80s, these artists are suffering from extreme poverty and need food, shelter, medical care, and other assistance. Music Maker was started by Mark Levinson and Timothy Duffy to provide these essentials, get the musicians recorded with the best possible quality, and arrange deals with CD, LD, and TV companies which will provide long-term income for the artists.

"The situation is critical. Preston Fulp, to whom this CD is dedicated, was a great singer and guitarist who died in December, 1993, because a hospital refused treatment due to a lack of medi-

cal insurance. Others are in dire need of help with time running out. To raise emergency funds, Music Maker is seeking contributions of \$100. Donors receive the Music Maker patron's sampler CD and full-size booklet written by Timothy Duffy with photographs of the musicians.

"These field recordings are among the most emotional and inspired you will ever hear. With your help, there will be many more coming soon."

While the sound quality of this CD varies from the fabulous to the merely adequate, the performances are all wonderful—sometimes weird, sometimes raunchy, sometimes moving, but truly wonderful. The recordings were made with what Mark Levinson calls "extremely humble equipment," but the CD was mastered using Cello electronics, and it's always truthful—mike pops, rustlings and other warts included. Future recordings will be made with high-end Cello equipment; I certainly look forward to hearing those. Your patron's check for \$100 can be mailed to the Music Maker Relief and Recording Foundation, P.O. Box 12522, Winston-Salem, NC 27117-2522.

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The Avalon Radian

Shannon Dickson

aving just been informed of a final Ldraft cutoff date five days hence, I feel like a college freshman facing a term paper deadline, shaking off months of procrastination in order to finish a long overdue report—in this case, a review of my new reference speakers, the three-way Avalon Radian. The source of my procrastination was not ambivalence about the performance or value of these speakers. Quite the contrary—the overall quality and refined resolution of the Radian led me through an array of associated components in an effort to define their sonic alacrity and to search for any fundamental limitations. Now, after a full year of evaluation (laced with hours of shear enjoyment) it's time to throw in the towel and offer a proper introduction to this remarkable assemblage of "sound" engineering and art.

It's taken a year to write this review for other reasons as well, not the least of which is that loudspeakers are the component most subject to personal preference. More than once I've been enamored with a new speaker during the flush of excitement surrounding its arrival. Inevitably, however, after a few months or so of adaptation to the sound, a growing awareness of the speaker's inherent weaknesses has left me with a distinct feeling of compromise and limitation. As a result of these past experiences, I've been in no rush to arrive at the only conclusion left to me now: The Avalon Radian is a truly world-class speaker comparable only to an elite few transducers in the under \$15,000 category. Indeed, after a full year of constant listening to these speakers through a variety of amplifiers and speaker cables, using all types of music,

I have yet to discover the limits of their resolution.

To keep things in perspective, it's worth emphasizing that no speaker system yet devised is truly uncolored or without flaws. The goal of a reference quality speaker must be to keep these deviations from linearity to a bare minimum while balancing those that are inevitable in such a fashion as to convey a total musical experience that automatically disconnects the analytic mind, allowing one to be completely present with the emotion of the music at hand. With today's increasingly revealing electronics, such an achievement is formidable for any speaker. It is in this balancing act that the Radian reaches true greatness. The Radian delivers a cutting edge performance in several critical areas while minimizing the impact of the few inevitable compromises in a manner that preserves its alluring musical presentation while being, at the same time, a superb reference tool.

DESIGN DETAILS

Avalon Acoustics, as many of you know, is a relatively young (6 years old) company nestled at the base of the Rocky Mountains in Boulder Colorado. Their only business is speakers of the highest quality. Interestingly, the company was founded around a single flagship speaker, the Ascent. The \$15,000 three-way Ascent took the high-end world by storm several years ago, setting new standards for elegance and resolution in a moving coil design. Since that auspicious introduction, Avalon has offered two additional floor standing two-way designs, the Eclipse and Avatar, as well as a newly minted, stand-mounted gem called the Monitor.

The 1993 Vegas CES provided the venue for rolling out the Radian, a new floor-standing three-way system many view as a more affordable Ascent with a few unique twists. The design of the speaker borrows from its earlier siblings yet clearly reflects a lot of hard work by the design team of Neil Patel, Paul Rubin and Lucien Pichette, among others at Avalon. It maintains a reference level of quality while meeting several different goals. It was at CES that the Radian first caught my ear while being driven by a battery powered Rowland Model 8. Prior to this experience, my only exposure to Avalon had been a pair of Ascents that had been poorly set-up and driven by an inappropriate amplifier. As a result, my initial impression of Avalon speakers was of gorgeous looking cabinets that didn't sound as good as they looked. First impressions can be very misleading!

During my first listen to the Radian, I was sitting in the sweetspot in the Avalon suite at the Sahara Hotel while Michael Hobson, from Hobson's Ultimate Sound in New York, was adjusting the toe-in when the speakers suddenly locked-in and threw one of the most incredible soundstages I'd ever heard. The tonal balance and resolution of fine textural detail was simply incredible. Someone dropped in a Metallica disc [Presumably the RCA classic, Reiner Conducts Metallica.—Markl and, in addition to the high level of resolution, I was bowled over by the amount of air these things could move.

By April, one of the first production Radians sporting a stunning walnut finish arrived at my apartment in Honolulu. These speakers are second to none in craftsmanship and refined appearance, reflecting the attention to detail and quality control that Avalon lavishes on their products. Like all of the Avalons, the Radian shares the 8 degree backward slope of the entire cabinet—in this case a 48" high x 12" wide x 19" deep cabinet weighing in at a hefty 170

pounds. The slope of the cabinet combined with an angled bevel of the upper half of the front face at the top and on both sides gives the Avalon its distinctive, elegant appearance while serving the function of time aligning the drivers and reducing diffraction around the tweeter and midrange.

I can't imagine anyone not being taken with the elegance of the Radians. That these good looks were achieved in a manner enhancing the function of the speaker attests to the skill and attention of the designers. Beyond its beauty, this box is built like a fortress. It contains 14 separate internal chambers, each aperiodically tuned to the others and lined with E.A.R. Isodamp sheets to contain and dampen vibration. The front baffle is a constrained layer assembly five inches thick (yow!) in order to provide an inert wavelaunch platform. The sides and rear of the cabinet are 1-3/16" MDF with Isodamp pads glued to the inner surfaces. With all the drivers enclosed in isolated inner chambers, the result is one of the deadest cabinets ever made from wood.

A 1-3/8" wood plinth slightly inset from the outer perimeter of the speaker is attached to the bottom, giving the Radian a solid foundation while providing access for connecting tri-wired speaker cables to a high quality terminal strip through a cut-out on the rear of the plinth. Just above this terminal strip is an elaborate crossover sealed in a special damping compound and located in its own isolated chamber at the bottom of the cabinet. Housing the crossover in this sealed and dampened chamber is one of the major differences between the Radian and the Ascent. While the Ascent houses its crossover in a separate box, the designers found that with the Radian they could get most of the benefit of resonance control through careful isolation and use of the structural damping material within the same cabinet. Using a single cabinet per side is certainly one reason why the Radian

sells for over \$5,000 less than the twopiece Ascent. In addition, having the terminal strip connect directly to the crossover, which is then hardwired to the drivers, offers some advantage over introducing a separate connecting cable between crossover and speaker.

The crossover itself is physically impressive, with high-quality polypropylene capacitors, high-purity copper wire and enormous litz coated, air-core inductors all carefully arranged to minimize electromagnetic interference between parts. The entire board is hardwired, eschewing the easier but less effective PCB with traces. Technically, I can't tell you much about the crossover's topology, as Avalon keeps a tight lid on what they consider proprietary information. I've heard speculation that the crossover contains elements of both a first order design for the first octave on either side of the crossover points followed by a high order drop off for the trailing frequencies to reduce the effects of driver resonance . . . but that's just rumor. What they will say is that the crossover is very carefully designed with special networks to provide a gentle, controlled impedance modulus as well as phase coherent performance. The literature on the Radian even states that new advances in network design are incorporated to further enhance the time domain performance of the speaker.

One of the most important keys to realizing the potential of a good design is extra care in matching components both within a given speaker and to its sibling in a pair. Avalon is fanatical about making sure that each speakers is as closely matched as possible within pairs. Every driver that comes into the factory is computer tested and labeled, and the crossovers are carefully calibrated to each other to allow precision component selection. I received an anechoic measurement of my particular pair from Avalon that showed literally no deviation between the two speakers within the measured bandwidth from

350 Hz on up beyond 20 kHz! If I had taken a ruler and drawn a straight line on the graph paper I couldn't do much better. This attention to system matching pays off in elevating what would be a great speaker to the truly superb. Another benefit of this computer testing is that should you need to replace a driver for any reason, the curves of every pair of speakers are on in the computer database, so a perfect match can be sent straight from the factory for easy replacement in the field.

Each of the internal chambers of the Radian is lined with a variety of selected materials. Which materials go in what chamber was determined after careful measurements and listening tests. Speaking of materials, Avalon uses only the finest book-matched veneers, and employs a sophisticated veneering process to achieve a uniform, permanent bond. Anyone who has seen an Avalon up close will attest to the excellent results of their methods.

Often people think of a speaker in terms of the drivers used. While I feel that cabinet construction and crossover design are even more important, driver selection is obviously critical. Here again, Avalon opted for the exotic. The Radian uses the same highly modified MB titanium dome tweeter used in the Ascent and their other designs. The performance of this tweeter is said to significantly exceed that of the stock MB version. Instead of the titanium midrange driver found on the Ascent, the Radian sports an 3.5" Nomex/Kevlar composite cone midrange driver made by Eton that not only matches the two 9" bass drivers in construction but offers a particularly wide bandwidth with superb dispersion characteristics. The selection of this low distortion, wide bandwidth driver allows the tweeter to be crossed over to the midrange at a higher, more comfortable region. My feeling is that this midrange unit is one reason why the Radian has such a wide dynamic range. You can really crank

this speaker to the limits of most any large amplifier without the treble or upper mids sounding strained or harsh.

The wide bandwidth of this midrange unit has benefits in the high-pass crossover region as well, resulting in a lower transition frequency to the bass drivers—near the junction of the upper bass rather than further up in the midrange. Instead of one large 11" composite Eton driver for the bass as used in the Ascent, the Radian employs two 9" Nomex/Kevlar drivers, each enclosed in its own separate aperiodically damped chamber. This type of design can result in a faster, more responsive bass possessing greater power than a single large driver. One of the goals of the Radian was to offer a speaker that maintained the articulate, critically damped bass of the other Avalon speakers while really moving some air in the lower region. The Radian succeeds handily in meeting this objective, never sounding anemic or light-weight in the bass. The cone construction of these Eton drivers includes two layers of Kevlar with a honeycombed layer of Nomex sandwiched between them. This produces a driver that is at once extremely rigid yet very light in weight, making it very responsive while being less prone to resonant break-up.

Even the grille assembly covering the drivers is designed to enhance the sound. The grille has a rigid plastic frame housing a half inch thick layer of felt which surrounds all the drivers and is shaped to provide dispersion guides for the midrange and tweeter. This felt should be left in place as an integral part of the speaker system, as it not only controls diffraction but absorbs return reflections from the front baffle. The speaker is shipped with a grille assembly covered with an attractive black cloth. I highly recommend ordering the optional grille that contains the felt but without the grille cloth for optimum performance. With the cloth grille, the speakers still sound great but lose a bit

of air and dimensionality. You can always slap the regular cloth grille on when you have kids or parties in your listening room.

This description of the Avalon Radian's make-up would not be complete without highlighting the superb care the company takes in the shipping, handling and documentation of these speakers. Avalon boxes each speaker in its own solid wooden crate! While this makes unpacking and set up a three man affair, it virtually assures arrival of the speakers in the same shape they left the factory. Accompanying the speakers is a hard-bound book that is simply the finest owner's manual I have seen in audio. Not only does it give great detail on proper unpacking, set-up and operation, but it contains an excellent chapter on bass alignment theory, making a compelling case for the correctness of a critically damped, .5 Q alignment for the bass response of moving coil speakers. I underscore these points to illustrate Avalon's commitment to quality and value. Although at \$10,500 the Radians can hardly be called cheap, you clearly get your money's worth . . . and then some!

THE SOUND

When considering the purchase of a pair of Radians, or other Avalon speakers for that matter, you must be prepared for a substantial break-in period, and be committed to a little extra effort and care in speaker set-up. Neither of these requirements is particularly difficult, but awareness of them up-front can make the experience more enjoyable When you first hook up the speakers they will sound OK, but won't even remotely sound as killer as they will after

a good 300 hours or so of playing dynamic, high energy music. These speakers undergo the most dramatic metamorphosis during break-in of any I

have experienced.

The owner's manual gives excellent suggestions for set-up and I recommend using their guidelines for roughing in speaker placement. I used a combination of the Avalon instructions along with the formulas concocted by George Cardas and Bill Rasnake of ClearImage Audio, which can be found, respectively, in volumes I and II of *The Audiophile Reference*, published by Winston Ma through the Golden String Company (206-868-2671).

Once I had located a speaker position consistent with all three formulas, finetuning was a simple matter of minor toein. While the Radians will perform well in just about any reasonably symmetrical triangle from the listening position, the "jaw dropping, strap me in the chair" level of performance of which these speakers are capable will only be had by those willing to go the extra mile. If you're not inclined to do even these simple steps, insist that your dealer take the time to fine-tune the setup in your home. Unlike many cone speakers that like to be fired straight at your ear, the Radian gets the best balance between stage width, depth and image specificity with only a slight toein. I found the ideal angle in my 16' 9"wide, 22' deep and 8' high room at 5 to 7 degrees from straight ahead. In my room the speakers final resting place is 55" from the side wall and 78" from the rear wall, measured from the center of the woofer assembly. This position places me in the nearfield about 7' 3" from tweeter, with the tweeters forming an equilateral triangle with my ears.

The reward for your effort and patience in set-up and break-in is a holographic soundstage that is nothing short of amazing. Even after a year I still find myself holding my breath when listening to good recordings, entranced by living, breathing apparitions in my listening room. There may be better speakers out there when it comes to accurate, believable soundstage portrayal

and image delineation, but if so I haven't heard them. This degree of sonic revelation would not be possible if the Radian did not get the other characteristics of speaker performance largely right. Without an even, measured tonal balance, a superb handling of macro and micro dynamic range and an ability to portray the most delicate nuance and inner detail, the soundstage acumen displayed by the Radian would be impossible.

When I first played the Radians in my system, even before they sweetened up with break-in, my whole body relaxed a little. The source of this experience was the incredibly flat frequency response of these speakers, particularly in the midrange and treble. As a result, these speakers are mercifully free of the alltoo-typical upward tilt found in the presence region of many "audiophile" speakers. I was actually able to remove about half of the tube traps I was using on the side walls to control a previous speaker's 3 dB rise between 4 k and 8 k. I could rail on about the evils of treble tilt used to achieve exaggerated detail but I won't. One listen to well-balanced, flat response speakers such as these should convince anyone that there is simply no reason for boosting the treble unnaturally. It may help move more speakers off the show room floor with the "wow factor," but is likely to wear thin during daily listening.

The treble of the Radians is very clean, pure and understated. Extension is very good, blending well with the rest of the response. Care in set-up and toe-in pays big dividends here in terms of expansiveness. Prior to the introduction of analog to my system, I felt that the Radians' extreme treble extension was slightly reduced relative to a few other systems I had heard. An Immedia RPM-2 turntable/arm with an Audio Technica ATML-170 corrected that misperception, and highlights the danger of drawing comparisons between components heard in different systems.

The resolution of air and atmosphere on good recordings is simply beautiful without calling attention to the tweeter.

Cymbals, often the bane of other metal dome drivers, are handled most naturally on those few recordings that capture their true sound. Rarely could I identify the metallic (titanium) origin of the tweeter. This surprised me, as I am particularly sensitive to the metallic sizzle of other metal domes, and have shied away from them in the past. Over the last few years Avalon, Wilson and a few others have demonstrated a proven mastery over metal when it comes to tweeters. I keep coming back to the theme of balance: The Radian's treble is so well integrated with the rest of the music that even when revealing a harsh recording or associated component it does so decisively yet without adding an edge of its own.

Midrange portrayal through the Radians is nearly flawless. It is neither too forward nor overly recessed. This most critical frequency range is certainly not thrown in your face. When listening to most natural recordings in my room, the soundstage and midrange timbres unfold starting about five feet behind my speakers and extending as much as 20 feet or more in apparent depth and width. Male voices are simply outstanding, having vibrancy and realistic texture without a trace of the chestiness I've heard on many lesser designs. The most striking thing about the mid-band of the Radians is the natural sense of body and presence in the sonic images. Once properly aligned, there is nothing vague or ephemeral in the placement of musicians and instruments. It's as if the entire soundfield is one continuous whole from front to back and side to side, with each musician clearly defined in seamless space. This quality imparts a genuine multidimensional illusion, in contrast to the separate, layered effect heard from otherwise good speakers that lack the Radians' time continuity and ultra low-level resolution.

The texture of midrange notes is presented with a delicate liquidity on appropriate recordings. Interestingly, this liquidity is accompanied by a clarity I've rarely heard from speakers that can sound liquid. Too often, liquidity is accompanied by a subtle slurring or smearing that, while alluring, can't hold a candle to the kind of delicate, clean portrayal I'm referring to. Again, the RPM-2 turntable and arm emphasizes this contrast beautifully. The addition of this drop-dead analog rig has done nothing but heighten my respect and appreciation for the refined presentation of which these speakers are capable (more on that another time).

While I can't bring myself to describe the Radian's midrange as completely neutral, it comes about as close to meeting that goal as I have heard. Again this is not too surprising, after seeing how flat the response is. The tonal balance is invariably established by the recording, with only the special nature of the Radians soundstage performance and midrange resolution giving away its contribution. Unlike some speakers that can sound reasonably neutral only when listened to from a narrow sweetspot, the Radians maintain an even tonal balance anywhere in the room. I can walk across the plane of the Radians from one side of my listening room to the other without detecting any significant changes in tonal character. This experience indicates excellent dispersion characteristics and good integration between the crossover and the drivers.

Dynamically the speakers present an interesting study. In terms of macro, large scale dynamics, you can drive these speakers to the limit of any amp—including a pair of Crown Macro References I'm told—and they will just cruise along asking for more, never closing down or getting hard and bright. On the subtle, micro dynamic scale, the Radians' dexterity in conveying very soft delicate passages of, for instance, a solo string in one part of the soundstage

while simultaneously rolling out a thunderous timpani drum in another position—all the while maintaining each instrument's individual integrity and scale—is astonishing, and certainly contributes to the speakers' solid imaging. Here the Radian really sets itself apart from all but a rare few in speakerdom.

On a few occasions, particularly when the speaker hasn't been played for several days (a rare occurrence around my pad) or when driven by an under-powered amplifier, the speakers seemed slightly less effortless in overall dynamics than when warmed up and supplied with adequate power. This observation is of essentially no consequence when measured against the total presentation and is offered to serve notice of the need for proper system matching and warm-up to get the most out of the Radians.

A real hallmark of a truly fine speaker is the ability to maintain its soundstage and tonal characteristics at low volume. Many otherwise excellent speakers wash out when you drop below 75 to 80 dB in sound level. The Radians pass this test with flying colors; even with the SPL as low as 65 dB at my listening chair, they maintain all of their intrinsic qualities. I've never had a speaker that could come close to maintaining a delicate dimensional soundstage from wall to wall, with great depth and proper tonal balance, at such a low level. The ability of the Radians to do so speaks volumes about the inherent quality of this loudspeaker.

Earlier, I mentioned the chapter on bass alignment in the Avalon owner's manual. Briefly, Avalon shares the view, along with John Dunlavy and a number of other respected designers, that a critically damped bass alignment—that is,



with a O of 0.5—is ideal. With this loading value a condition is met whereby no resonant energy storage takes place in the drivers and crossover. All other alignments, such as vented enclosures and even boxless panel speakers, add a deliberate low-frequency resonance to improve bass extension in an anechoic chamber. This added resonance, by definition, entails energy storage which results in some degree of additional time-related distortion. The sound of a critically damped bass alignment is characterized by a taut, articulate bass, often called "fast bass." When properly executed, as in the Avalon Radian and Dunlavy speakers, the bass has remarkable definition without sounding too lean. In the Radian, the purring, highly textural resonance of a plucked string bass on good program material is seductive, almost elixir-like.

The bass response of the two 9" Eton composite drivers in the Radian is in lock step with the speed of the midrange, never sounding bloated or boomy when driven by a decent amplifier. In my room, I get solid extension down to the low 30 Hz region, with some contribution into the mid 20s, making even the lowest organ notes appreciable. From the low 30s on up, the bass has an articulate clarity and rhythm that establishes an involving foundation for the entire presentation. Once you get accustomed to well-defined bass, other alignments can sound overly fat and sluggish, often drawing your attention to the bass as separate from the midrange and treble. The bass response of the Radian is slightly deeper, faster and moves more air than that of the Ascent. While the Ascent's marvelously clear titanium dome midrange is a special driver, I think a case can be made for a more seamless integration of the Eton 3.5" wideband middriver and dual woofers used in the Radian. A matter of taste and preference, I'm sure.

For a large floor-standing speaker made entirely of wood, the cabinet of the Radian is so quiet as to convey on almost electrostatic-like openness. I can barely make out the box coloration of the sound. It is so low in level and so well blended with the tonal balance of the speaker—sort of like a fine Stradivarius—that the box's presence simply doesn't intrude on the experience. By comparison, the cabinet resonance of every other wooden, floor-standing speaker I have heard has been significantly more noticeable than the Radian's. The reduction of cabinet resonance results in sonic images that extend through the speaker as well as behind and between them instead of bending around behind the speaker. As a result the Radians completely vanish as a source of sound on appropriate material.

Beyond any of the specific categories of speaker analysis—tonal balance, imaging, dynamics—the Radian's total experience is one of consummate refinement. No matter what type of music you're listening to, the emotional content or feel of the piece dominates in your awareness. The Radian's blend of sonic attributes is so well executed that breaking apart the performance into separate areas of analysis seems unnatural, and is not something you'll be inclined to do if you purchase these speakers.

A few practical and system matching concerns must be dealt with to get the most out of these speakers. First, a high-quality, high-current amp is most desirable; the Radians love power. They can sound wonderful, I'm told, with high output tube amps as well. My experience included the original 100 watt version of the Rowland battery powered Model 8 and its 250 watt A/C version, the superb BEL 1001 Mk. II, Muse Electronics excellent Model 300 monoblocks and the exciting new amp from Ayre acoustics, the V-3. All five amps get high marks for sonic proficiency, each

one driving the 88 dB efficient, 4 ohm Radians easily. Even the smaller BEL and Ayre amps achieved plenty of volume in my room, each demonstrating graceful clipping behavior into the speakers' moderately efficient load. If you select the BEL amplifier to drive the Radian I'd suggest running two in mono to really get the most out of this combination. The Radians certainly get a gold star for allowing me to hear precisely the differences between this bevy of excellent amplifiers.

One recommendation I do have for Avalon is to include an option for threaded adjustable spikes for the Radians. Proper coupling of these speakers to the floor is critical for best bass response and midrange focus. If the cabinets are not level and completely coupled to a solid floor the bass can sound a little woolly. Avalon includes some otherwise excellent stainless steel "Apex" cones, which do the trick nicely in the vast majority of applications. However, if your floor is not level, you're stuck. Don't try placing a quarter under one spike; the extra surface layer can negatively impact the sound.

It may seem a minor point, but there is a very noticeable improvement in overall performance when this speaker is firmly coupled to a flat floor. Avalon chose the cones over threaded spikes, I was told, to facilitate easy fine tuning of toe-in by slightly sliding these very heavy speakers on top of the cones. I can see their point, but would still like to see an adjustable option for those of us with sloping floors. I wound up having two custom "Apex" cones fashioned at a local machine shop to correct the 1/8 inch slope of the speakers on my concrete floor. The result was a very audible tightening and focusing of the bass up through the midrange. Unfortunately, those custom sized cones cost a pretty penny. [In this issue I criticized a \$550 speaker because of this; no matter how well the Apex cones work on a flat surface,

real-world floors require at least the option for easy height adjustment.—Mark]

The impedance modulus of the Radian is very gentle, ranging from a low of 3.7 ohms at around 70 Hz to a high of about 8.1 ohms around 5 khz. When using the high-current amps, I found a special synergy with MIT's frightfully expensive yet extraordinary CVT plus Terminator speaker cable. This cable adds new meaning to bass punch and articulation, really showing off the capabilities of the speaker's low Q alignment. A tri-wired version of the Cardas Golden 5-C also worked splendidly with each of the amps I used with the Radian, and will probably be the most practical choice for most systems. I didn't try the whole gamut of cables available so I'm sure an excellent match can be found elsewhere as well. One thing I can guarantee: The Radian's nearly flat response and ultra-resolution make it an ideal tool for evaluating cables, amps and any other associated component. Their combination of resolving power and musicality have made my job as a reviewer immeasurably easier as well as more rewarding. Paradoxically, the Radians have just as often forced a delay in my reviewing schedule by subduing my analytic faculties with their involving presentation.

I mentioned at the outset that I had yet to discover this speaker's inherent limitations of resolution. This is literally true, and is amply illustrated by the new territories I am now discovering via the RPM-2 turntable and Sonic Frontiers SFL-2 pre-amp. The speakers don't plumb the very lowest frequency extreme, yet within their nearly full-range envelope they are genuinely fulfilling and often amazing. I can honestly say after a full year that the Radians have earned a deeper admiration and respect than I had in the early "honeymoon months" of introduction. While no speaker is perfect and I realize that I might be swept away by some new design in the future (an occupational hazard for reviewers), maybe even a future offering from Avalon, I could easily live happily ever after with the Radians. With my only real critique having to do with the options offered for coupling spikes, the Radians obviously merit my highest recommendation.

Owning a pair of Radians has been one of the better decisions I've made since venturing into the high-end. If you're looking for a near state of the art moving coil speaker that can perform magic in just about any sized room, I can't think of a better place to start.

The Avalon Radian, US price \$10,500, 1" titanium dome tweeter, 3.5" Nomex/Kevlar midrange, Dual 9" Nomex/Kevlar woofers. Anechoic frequency response: 34 Hz to 24 khz (1.5 dB); 88 dB (2.83 V @1 meter), 3.6 ohm minimum impedance. Dimensions 48" high, 12" wide, 19" deep, 170 pounds (each). Five year limited warranty. Avalon Acoustics, 2800 Wilderness Place, Boulder Colorado, 80301. Phone 303-440-0422, fax 303-440-4396.

Associated Equipment: Sources: Immedia RPM-2 turntable and Immedia arm with Audio Technica ATML-170 cartridge, Theta Gen V and Data II with single-mode fiberoptic interface, Sonic Frontiers SFD-2 processor, Audio Alchemy Dac-in-the-Box, Magnum Dynalab Etude and Signal Sleuth. Amplification: Custom MFA phono stage and Sonic Frontiers SFL-2 pre-amp, Rowland Consummate line stage pre-amp, Rowland Model 8- both A/C and D/C powered, BEL 1001 Mk.II amplifier, Muse Model Three Hundred Monoblocks., Ayre Acoustic V-3 amplifier. Cables: Cardas Golden 5C balanced interconnects and tri-wired speaker cable, MIT CVT plus terminator Proline balanced interconnects and CVT plus Terminator speaker cable. Purist Audio Colossus balanced interconnect and speaker cables, Dunlavy speaker cable. Audioquest and Ultra Resolution AT&T cables. Illuminati DataStream and Audio Alchemy DST coaxial cables. Accessories: Bright Star Big and Little Rock bases, Power wedge 116, Enhancer and Powerlink cords, Versalab Woodblocks and Red Rollers, TG power strip, Electroclear EAU-1, ASC tube traps, Mike Fredericksen equipment stands, Marigo accessories.

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Crown "Esoteric" Macro Reference Amplifiers

Nino Benigni

his review really begins on a Friday evening, almost two years ago. A group of friends, all members of the Audiophile Society, were getting together at a local restaurant prior to our monthly meeting. As you might expect, the conversation was all about audio. Across the table, an audiophile well known in the high-end press began telling us about a new amplifier from Crown. He tossed a few comments around about how great the amp sounded, and opined as to how it was priced at a point where the big names in the power amplifier game were going to meet some stiff competition in the fight for the \$tereobuck.

The name "Crown" really caught my attention and brought back memories of the DC300A. I thought Crown was just one of the many audio names that had fallen into obscurity except for an occasional sighting on a rack of used equipment. Instead, to my surprise, the company had never really faded away, but was alive and doing very well in the professional world.

Several months after this initial conversation Crown sent a pair of the "E" Macros to The Audiophile Voice and I got a call from Russ Novak to take them home and write a review. The opportunity was at hand for me to connect a pair of these as monoblocks to my home system and put them through their paces. The Crown "E" Reference Macro Amplifier is one of the latest commercial products of Crown International, Inc. A few golden eared audiophiles had gotten hold of samples of the stereo amplifiers and, through word of mouth, the praise began to spread. The early versions that started the rumors were

professional units; terminated only with 1/4" phono jacks and XLR inputs, they were not compatible with most unbalanced home audio systems unless adapters, which usually compromise the sound, were used.

With the introduction of the "E" (esoteric) audiophile version, Crown has remedied all of these shortcomings. The units now provide gold plated RCA inputs and eight Cardas binding posts. The eight binding posts make it easy to connect fat cable to loudspeakers that are bi-wired. The "E" also provides switches behind the front faceplate that will turn off most of the lighted display. Good thing: I found the display very distracting when listening in a darkened room. Inside the rear panel is a switch for changing the input sensitivity from the factory setting of 26 dB of gain (best for signal to noise ratio) to an optional sensitivity of 1.4 V. This is another change that was made for the audiophile version, allowing the amp to be used with a wide variety of preamps and passive line stages.

Since the initial introduction of the Reference Macros there have been some very positive reviews of the amps as stereo units. A few members of the Audiophile Society have liked them enough to purchase them and are currently using them in their own reference systems. With two of these amps in my possession, I figured I could raise the ante and install the Crowns as a pair of monoblocks. My system at home includes a pair of Apogee Duetta Signatures presently driven by a pair of Krell MDA 300's. The Crowns would slip right in as a single replacement and keep the number of changes to a minimum. It's difficult at best to be accurate when reviewing components and almost impossible if too many pieces are switched during an evaluation.

The very extensive manual supplied by Crown with each unit goes into great depth about the amplifiers. The protection circuits are elaborate, and the many ways that one or several units can be connected or interconnected for any give situation seem endless.

Crown's engineering and design is clearly aimed at the professional market and is evident in the sophisticated options that are available to the end user to customize the amplifiers. Without getting into a long and technically involved description of applications that have no real place in home audio systems, I'll mention just a few of the more interesting hook up variations. Through a series of "PIP" modules that connect via the rear panel, these amps can be quickly customized for a variety of professional needs. One of the modules allows the user to monitor and control various functions using a computer at a remote location. If you wanted to limit the voltage, the temperature or several other parameters of a working unit, it could be controlled remotely via a PC.

Another module, the "FXT," allows several amps to be "daisy chained" to each other to increase the power available for very demanding needs. The engineers at Crown have provided in the Reference Macros a product that can perform under heavy demands, protect itself, and otherwise be customized for many studio and stage requirements.

The Reference amplifiers were shipped by the factory as standard stereo units. After a careful reading of the manual it was easy to change each amplifier to a monoblock unit. Two mono choices are available: parallel mono or bridged mono. The difference in choice depends upon the average impedance of the speakers that you intend to drive. Parallel mono in effect parallels the output of channel 1 with that of channel 2, doubling the current output. It enables the amp to drive loads as low as 1 ohm. Bridged mono doubles the voltage and is suggested for use with speaker loads above 4 ohms. My Apogees present an average impedance below 4 ohms, so the only real choice for me was parallel. A short (14 gauge or larger) jumper wire was needed to connect the positive output terminals, and a rear panel switch must be engaged to select the parallel mono mode.

Now things were all set and ready to go. Lots of power in these big blowers (actually about 1300 watts per side), so with some excitement and a bit of anxiety I pushed the "on" buttons to fire them up. Past experience has made me cautious. Some wiring error I've made, or worse, some glitch inside the new component could end up frying one or more pieces of equipment—the audio equivalent of nuclear meltdown. So . . . carefully I turned up the gain pot on the front of each amp, one at a time. Everything sounded good . . . nothing blew out . . . all systems ready for take off . . . audio happiness.

Time to sit back and listen to what I had connected. Initially, I like to get a sense of the power available and the overall sound before critically listening to any new equipment. My first impressions were good. The sound was clean, and detailed. Images were placed nicely in space and there was plenty of power. I put on the Parton/Harris/Ronstadt *Trio* album (Warner Bros 254911), to hear some of my favorite voices, but there was an edgy quality to the voices that I knew was not there before. It all sounded too lean, but not clean. After listening to another recording, Vivaldi's The Four Seasons-L'Inverno (Telefunken 6.353861) to hear massed strings, it quickly confirmed the harshness at the top. I wasn't happy with the sound. I decided to walk away, let both units warm up and break in, and see if things got smoother.

These guys really took a long time to settle in! I ended up leaving them on for several days and held back any earnest critique until a later time. When I finally returned for the first serious evening of listening, the Macros were really quite different. They were warmer and more open, and the very irritating top edge was getting better. So, Rule #1 for those of you who buy these amps: Fresh out of the boxes they are not what they will be! Give them time, lots of time. Patience will be rewarded. The amplifiers were now beginning to sound great. They had absolutely no problem in supplying the power that the Apogees needed.

Dynamics were very extended and the attack on transients was very fast. On Famous Blue Raincoat (Cypress, 661.111.1), the punch was startling. Crown's manual makes a point of their designing the units to control loudspeakers and specifies a "low frequency damping factor of over 20,000." I'm assuming that the crispness of attack has at least something to do with this very high figure. The sound was spacious and focused with plenty of headroom (which = power to spare).

Yet, the overall character of the sound was still on the lean side. Detail was nicely etched but the thinness will be a minus or a plus depending on the system components that precede and follow these amps. The uppermost frequencies, as heard in massed strings, (Holst: *St. Paul's Suite for Strings*, Lyrita SRCS34) improved a lot over the weeks of auditioning, but never really reached that silky smooth reality that separates the best of the best.

The all-critical midrange and upper bass is very open and very, very fast. The soundstage is spacious and wide. The amplifiers create a front row illusion of images. Instruments and voices are large, well focused in space, with a nice sense of depth. Now that I was getting to know the Macros and was beginning to form some opinions about their sonic character, I decided to go back to what I knew best: my Krell MDA 300s.

After letting the MDA 300s warm up my ears again for awhile, some differences became apparent. On Ry Cooder's lazz (Warner Bros. BSK3197), which I love both for music and its sound, the Krells reached down what seemed like an octave lower than the Crowns. I didn't miss this lower octave until it was there again, and it partially explains the overall leanness of the Crown sound. The addition of the bottom seemed to fill out the frequency spectrum and gave an overall balance to the music. The Crowns present a great illusion and sound very convincing, but there's a magic and sense of correctness that the Krells added.

The 300s were also smoother at the top than the Crowns. The Macros never really offered that sensuous top that a very few solid state and some tube units can create. Lifelike and relaxed sound has got to have several criteria. One is a surplus of power to handle any demand the speaker requires. Another is a balanced frequency spectrum, a glorious middle, an extended and open bottom and a smooth and edge free top. The Crowns give you most of this, the Krells give you more.

To be fair to these amps I wanted to use them in different systems with cone drivers. So I first hauled the pair over to Herb Wolfe's house for a great evening of antipasto and audio. Herb's system would be a real test. His well-modified Infinity RS1b's are cone drivers below 100 cycles, and his front end is an absolutely wonderful, meticulously set up VPI turntable. We first removed the Sonic Frontiers 160 monoblocks from the midrange/treble panels and inserted the Crowns. Within a very short while we were both looking at each other and agreeing that Jennifer Warnes voice on Famous Blue Raincoat, is not usually so nasal. The edge was there.

On the other hand, the amps had power (power, power, power) and presented an impressive soundstage.

The next test was to replace the Krell 250 driving the bass units and wire in the Crowns. Here the difference was interesting. The Crowns added a hump to the low end. Hump is actually a very technical term that Herb assured me would explain the sound. This hump or bloom in the low-end sounded like a slight exaggeration of the frequencies around 50–100 cycles. The switch back to the Krell made it disappear. So we both agreed that we preferred the Krell. To our ears the attack was equally fast for both amps but the Crown was not as flat in this narrow frequency range.

The next haul was to Russ Novak's place to put the Macros in a system driving Mirage M1si's. The recording I focused on this time was the Cowboy Junkies Trinity Sessions (RCA 85681R) a very spacious and simply miked recording. Without giving Russ any clues to what results and observations preceded this session, he (to his credit) picked out the top end. His adjective was "chalky" (another very technical term), but the affirmation was there. The midrange, the bottom, the soundstage, the depth, the detail all were really excellent, and the Crowns again were not working anywhere near their potential in power. But the top end had an edge.

After several months of extensive listening to many types of music and recordings, I've come to the conclusion that the Crown's, as monoblocks, are an amplifier that will make most audiophiles very happy. Their power gives them an ability to drive just about anything successfully. They are not bothered in any way by demanding or unusual loudspeaker loads. After several evenings of long hard use, they ran very cool; the heat sinks stayed cool enough so that

automatic cooling fans built into each unit were never needed.

How about a value-for-the-dollar comparison of the two amps? If you are committed to using two Crowns in the mono mode, it brings the price up to the higher reaches—\$8000. That is several thousand dollars under the cost of the Krell monos, but once you've jumped off the cliff of high-end and are prepared to reach deeply into your pockets, the difference, although large in real dollars is small for the audio fanatic. Seen in that light the Crowns are less of a bargain.

If you have less demanding speakers than the Apogees (so that one Crown can drive them) and use one Crown amp in the stereo mode for half the price, the market niche is no longer the same. This would apply to 95% of audiophiles who only need one unit operating in stereo—all almost any speaker would need. The price for Crown amplification then drops to \$3995 compared to more than double for MDA 300s, and the Crowns become a value for the dollar.

Crown builds these reference amplifiers for a professional user who requires reliability far exceeding the demands of the average audiophile. They should run trouble free well beyond the 6 year no fault warranty. Their worst drawback is a slightly aggressive top end that never completely sounded right. A bright edge to a voice or string in an otherwise excellent range of lifelike sound. The power and control of the Macros makes them compatible with a wide variety of speakers and systems. The detail, depth and soundstage are marvelous. They are one of those few products that on occasion in a darkened room with the wind blowing in the right direction can create the virtual reality that makes an audiophile smile.

Crown "Esoteric" Macro-Reference Amplifier. Price: \$3995. Crown International, Inc., 1718 W. Mishawaka Road, Elkhart, Indiana 46515. Phone: 219 294-8000; FAX 219 294-8329 System components: Krell KRC, Krell MDA 300's, Apogee Duetta Signatures, Linn turntable with Goldmund mat and clamp, Ittock arm, Virtuoso DTI cartridge, Sony X7ESD CD player, MIT 330 balanced cable, Revox B740 tuner. Dedicated electrical lines.

Second Opinion

Earle Stevens

have been living with the Crown Macro Reference Audiophile Version for about three months now and the nature of the beast is easily discerned. No, you are not getting off that easy—you'll have to stay with me a while longer. This is being written independently of the full review, representing my experience with a different unit (in stereo mode), but keep in mind that this is a mass produced product primarily designed for the "pro" segment of the marketplace and tweaked for audiophile use.

When I began my apprenticeship with this retro styled, industrial strength behemoth, a few adjustments had to be made. First, this puppy has no feet. It was born to be rack mounted—a routine matter for the pros it was designed for, but not a common situation in the Land of Oz inhabited by seekers of audio nirvana.

I have no rack, just a rock (actually a slab of sandstone that had been fitted out as an amplifier stand). However, three large tip-toes were pressed into service (could this be what they refer to as a balanced design?) to couple the Crown to the stone platform, isolating it from the wonderful world of suspended floors. This works well because the amplifier utilizes a mechanically symmetrical architecture, with a massive toroidal

power transformer front and center. Even when one of my feline house mates climbs up to keep toasty on chilly days, this assembly remains stable.

Your attention, gentle reader, is now directed to the phalanx of design elements that adorn the front panel: lights, LEDs, lots and lots of them. Turn them off. Turn them all off. To do this you have to remove the plastic trim, four allen bolts, and you're home free. The light switch is located on the right upper front edge of the panel holding the "Enable" button. Switch it off. Not only did I think it looked better but it also sounded better, lifting a slight haze that had masked low level detail.

Another pro feature that gave me pause were the level controls. After some experimentation I concluded that, in any position other than full bore, their use markedly diminished dynamics and greatly reduced stage depth. I would recommend both controls be kept at detente 31 (wide open), effectively taking them out of the circuit.

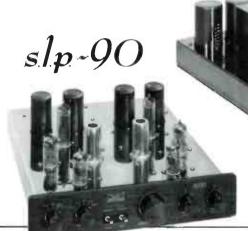
In my experience most speaker damage is caused by amplifier clipping. By now we should all be past unplugging interconnects while the old "Silvertone" is singing, and as it seems unlikely that I will ever overdrive the kilowatt of available kick in my system (the speakers are rather efficient at 91 dB at 1 watt at 1 meter), I opted to forgo fuses in the

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speaker lines as recommended in the Macro Reference Owner's Manual. Rest assured I tiptoe around the tonearm. Wasn't that a tune by Tiny Tim? Oh, never mind.

If you are still with me, let us take a stroll around to the nether regions. Will somebody please tell the fine folks in Elkhart that those two sets of Cardas music posts are too close together? Everything else, balanced and otherwise, is just peachy. This amp is a customizer's dream. A panel at the rear can be removed and any combination of inputs and outputs can be accommodated. For example, it can receive an equalized input, be made into a guitar amp, etc. It's a unique advantage of a "universal" product designed for the professional user. That, and reliability, thus the six year warranty.

The sound in the old ballroom I call home? The first impression was "absolute control." I cannot state this too strongly! My "Capehart" (an Eagle 2C) had always seemed fast and tight, but with the advent of the Crown all the familiar terms had to be redefined. The strangest thing was that, hand in hand with the improved "speed" and articulation, there seemed to be a reduction in bass performance. Extended listening helped me sort out this phenomenon. It would appear that an amplifier with restricted damping and limited power output tends to "create" bass in the form of overhang and spurious distortion products as it approaches overload. A situation not likely with the Macro Reference.

In fact, as the Crown burnt in, bass performance became one of its outstanding features. A good example being Clarity Recordings *Petrushka* (CBN 1003 Premium Vinyl Edition) when for the first time the old "Voice of Music" truly startled with the fireworks in the Second Movement. The ease and clarity (sorry about that) produced a few welcome goose bumps. Transients jump at you.

Even in a less than audiophile setting, The Red Norvo Trio (Savoy 2212), the legendary picking of Tal Farlow is clearly discernible. The absolute control of the Macro separates each note without limiting your ability to enjoy the tune by exaggerating detail.

Skipping to the other end of the spectrum I found equally precise attack along with pinpoint placement. The combination made complex music more accessible and, for want of a better term, believable. On a negative note I found the top slightly astringent. This problem was lessened when I replaced the Kimber Kable 8TC speaker cable with Straight Wire Maestro, but a residual dryness still remains. The decay of the glockenspiel on the *Petrushka* seems to extend into the ether.

Midrange? Well it isn't state of the art but I found it very good indeed. This is, after all, a solid state amplifier with very little Class A output. It lacked liquidity. Prospective purchasers please partner products purposefully to produce positive performance. Do you get the idea I've been at this too long? You bet! This is ground covered in the full review in far greater detail. Lets wrap it up.

The Crown Macro Reference Audiophile Version, in my estimation, represents a very cost effective high-end product, balancing almost perfectly with my system. Put the Macro on your short list; it just may work for you too. Welcome back Crown International, we've missed you.

Associated equipment: and the music goes 'round and 'round on a VPI HW-19 MkIV with their stand up Stand Alone Motor; demodulation via a nude Lyra Clavis with the support of a Graham Engineering 1.5t; little signals enlarged by a Klyne Audio Arts 7PX2 phono stage and 6LX2 line stage; power by Tice; and the music comes out here (or is it hear?) at the R. Sequerra FutureSonic MkII; continuity by Straight-

Wire, MicroLink and Maestro. Supporting cast: Sound Support Systems equipment

stand and various little and big pointy things too numerous to mention.

P.S. FROM EARLE

Editor's Note: The Macro Reference reviews were scheduled to run in the last issue. However, after we sent Crown a prepublication draft of the reviews, we received a phone call concerning the position of the gain switch on the review samples, which caused us to temporarily withdraw the reviews. Nino's mono amps had already been returned to the manufacturer (and, in any case, had been left at the factory-standard gain setting), but Earle owns the sample he reviewed, and so was able to explore the sound of the amp in the two different gain modes.

I wrote my "second opinion" on the Crown Macro Reference (CMR) independent of the full review; now, however, events external prompt this PS. As (I hope) we all understand, even the best high-end equipment is not perfect, but in my opinion the CMR gets some things as right as I have ever experienced. To reiterate: Control, speed, transient attack and decay are, in my Voice of Music, fantastic. It also happens that these characteristics are important listening criteria for me. Additionally, bass impact, midrange fluidity and articulation are first rate.

On the debit side, I find that orchestral weight and transparency are a little less than the best I have enjoyed in my listening environment. Tonal balance, which I found acceptable, has proven to be the CMR's Achilles' Heel. There has been much controversy about this aspect of the Crown's performance. I have listened to several samples of this amplifier in various venues and found a considerable range in the subjective experiences. Does this represent a real

failing, a perceptional difference, or a combination of factors?

Mr. Vern Searer, a representative of Crown International, Inc., contacted the magazine and suggested the problem might be attributed to the selected input sensitivity. This parameter can be at either .775 volts for rated output into 8 ohms, or to a fixed voltage gain of 26 dB, resulting in an input sensitivity of 3.9 volts for full output. The selector switch can be found behind the Programmable Input Processor (PIP) module plate located on the rear panel of the CMR and requires a screwdriver to remove. The switch is recessed in the exposed cavity, and a label for proper orientation is clearly visible. It transpired that my unit was received set at 26 dB, so I activated the .775 V input and reattached the PIP plate. Let the games begin.

Because of the increased sensitivity of the amp at .775 V, your preamp has to be turned down considerably, and therefore you lose a lot of your volume control's rotational range. The first thing you hear is a flattening of the stereo illusion, a loss of vibrancy. Then you become aware of the altered tonal balance. These were not gross changes, but they could alter your perception of the amp. Through the Straight Wire Maestro speaker cable the treble became brighter and developed a sense of hardness. The net result made the overall sound unacceptable to my ears. Changing back to the Kimber Cable 8TC brought the upper midrange and treble back to life, but the balance became even brighter. Once again, I would not be willing to live with the result.

To further refine the results, I reduced the gain in my line stage (Klyne Audio Arts 6LX) to regain a reasonable range of volume control. This ameliorated the original problems, but not to an extent that made the sound viable. In short, I found the .775V setting degraded the overall quality of the Crown Macro Reference.

Interestingly, the input sensitivity investigation led to another set of comparisons, which also proved enlightening. The rather dramatic change I heard when exchanging speaker wire inspired me to try some samples I had stashed in the closet: Monster Cable M1, crossed runs of Mogami 2534, Radio Shack 300 ohm solid core foam insulated twin lead and some very heavy zip cord. The result?

The Crown is very cable sensitive, almost sounding like a different piece of equipment with some of the wires! This

might account for some of the wide range of opinion, especially if combined with the wrong sensitivity choice, on this interesting amplifier.

What? You want to know more about the cables? Well, in my system, the Kimber 8TC has permanent pride of place at present (there I go again). The Radio Shack TV special, two runs to the woofer, one each to the midrange, ribbon tweeter and the "line source"—yes, five lengths each channel, finished a strong second. At the price of this wire, go crazy; it will at least clearly demonstrate the effects of multiple runs of cable and bi-wiring (without having to sell the children). The zip cord was, of course, zip.

In short, the Macro Reference deserves careful cable matching, and by all means make sure the input sensitivity is set at 26 dB!

The Alón II Speaker System

Samuel Burstein

The Acarian Loudspeaker Company is the brainchild and labor of love of the Marchisotto's, Carl and Marilyn, and in some ways also of their children, who are involved with their parents in various aspects of the family business. The name Alón, I'm told, was suggested by the kids. After a fifteen year stint at Dahlquist, where Carl was a driving force behind many of that company's designs, he set out on his own—albeit with family alongside. The parents decided to use their knowledge, inventiveness and energies to run their own business.

Their small, fledgling company has been making a lot of audio news lately with reviews of the Alón IV loudspeaker in *The Absolute Sound* and *Stereo*- phile. The speaker reviewed here, the Alón II, is a scaled down version of the IV, weighing in at about 55 pounds per side compared to 105 pounds for its bigger brother. Not only is the weight scaled down but so is its price: The II is approximately \$1800 while the IV is in the \$4000 range.

Carl and Marilyn arrived at my home with their Bimmer crammed with speakers and van den Hul cables. The car was quickly emptied of its contents and the speakers introduced into my listening room. My reference system starts with the inexpensive Basis turntable upon which is mounted an ET-2 tone arm (high pressure series II) and a Lyra Clavis cartridge. A Koetsu Black, mounted on a second arm tube, was also used during later listening tests, but initially we stayed with the Clavis

and allowed my electronics, the MELOS 333 line and phono stage and 80 Watt Jadis monoblocks, to warm up. The speakers were set up in the same position as the WATT/Puppies they replaced.

For speaker cables, I used the van den Hul cables supplied by Carl. His reason for using these cables was that they represent a more realistic value for the consumer, especially considering the \$1950 cost of the Alón II. In our audiophile world the cost of speaker cables could greatly exceed the cost of the speakers. He felt that the van den Hul cables would do justice to the musical balance of his speakers.

We played a wide range of material so that the Marchisottos could verify that the speakers were performing as they were designed to do. And did they do. But before I give you my opinion on these speakers, note that after Carl and Marilyn left, I allowed the speakers to break in for approximately 48 hours using an FM signal as input.

First impressions: Playing one of my favorite records and composers, Sibelius and his Third Symphony in C major, Op. 52 (Decca SXL6364), the speakers presented the soundstage over a wide arc, with nicely defined images of the individual instruments placed across the stage. String tone was smooth and warm, as it should be on this recording. Depth was quite good, and although the Alón II is not the best-focused speaker system I've had in my listening room, individual instrumental voices were easily located. Unlike my reference Wilson Watt/Puppy system, which projects a front row center perspective, the Alón IIs give one the impression of moving several rows back into the orchestra seats.

Next impression: Paul Simon's *Graceland* (Warner Brothers Records 25447-1) had bass that was deep, clean and satisfying. The "blurb" sheet on the

Alóns says that frequency response is 3 dB down at just under 40 Hz. Although the 10" sealed bass driver gives clean output without overhang down to 30 Hz, this speaker has a spectral signature that is obviously leaner than the Alón IV (which I think has a frequency response too heavily weighted in the bass region). In that regard, I judge the Alón II to have the more natural sounding bass of the two systems—although I was not able to listen to each in the same listening room. (I heard the IVs at Sound by Singer.)

The IIs have a spectral balance that emphasizes the presence region to a greater degree than the Watt/Puppies, thus giving a sense of liveliness to the music. Because the IIs also project good dynamics, the sense of realism is enhanced.

I was delighted that the top end of the IIs is so clean and detailed. I used the Proprius recording Jazz At The Pawnshop, which contains much of the delicate high frequency information that delineates the acoustic field of the night club where the live recording was made. I came away with the impression that the top end does not have an etched feeling, but rather is both smooth and greatly extended.

After listening to the IIs for some time, I was quite surprised at the sound I heard when I walked into the dining room, which is directly connected to the living/listening room. The surprise is that these speakers have that magical ability to let you believe that a musical performance is actually taking place in the next room! Of course, the performance being reproduced must be consistent with the volume of the space in the listening room—large symphonic works don't allow for this credibility of inroom performance. But individual instruments like piano, violin or cello-and combinations of two such instruments—yield startling effects. As an example of what I am referring to try the Wilson Audio W8722, Sonatas for

Violin and Piano, and in particular the Debussy Sonata for Violin and Piano.

The point is that the Alón IIs are so cannily designed and constructed that they have the unexplained component of musical magic that gives a listener the feeling that he is listening through the recording directly to the performance, not to the speakers. Part of the reason that the Alón II has this musical magic is surely associated with the dome tweeter, which I understand is a Marchisotto design, and dipole midrange geometrically situated on a panel atop the separate bass enclosure à la Dahlquist. The panel is angled back from the plane of the bass enclosure to achieve time alignment. When bombarded with large transients the top end keeps on going, without any signs of breakup, just like live music. The high frequencies sound very linear, increasing in output when prodded by the input signal, never getting in the way of the music. Perhaps the top end of the Alón II is the hallmark of this grand speaker.

Overall, the musical balance of the Alón II is similar to the Watt/Puppy III, but I felt the Alóns slightly favored the upper midrange through the high frequencies. This does not mean that the tonal balance was threadbare; on the contrary, the bass and mid-bass of the Alón II is more than adequate, and it's fully integrated with the top end of the musical spectrum. As with most bass enclosures, spikes are a necessity for the reproduction of clean bass; the Alón II comes with spikes that can be solidly screwed into the bottom of the enclosure.

The Alóns actually presented a wider stage than the Watt/Puppies, although this was coupled with a somewhat weaker ability to localize musical instruments in space. Of course, to make a comparison of the Alón II with my Watt/Puppy IIIs is a compliment to the engineering and musical expertise of



the Acarian Loudspeaker Company, because the Alón II speaker system costs about SIX times less than the Watt/Puppy. Carl has sought out speaker design solutions that are realworld effective, and that is what marks him as a great engineer.

OUTSTANDING FEATURES

Big things: The soundstage is splendidly rock steady, and its presentation is so outstanding that the speakers just disappear as the source of the sound field—to such an extent that one is inclined to wonder if the speakers in the listening room are really playing.

Little things: The speakers have excellent connectors for bi-wiring the system. The connectors are nicely knurled for easy hand tightening, or they can be tightened with a hex wrench. Furthermore, there is plenty of space available for neat wire placement.

The Alón IIs are several inches taller than the WATT/Puppies, although the WATT/Puppies are several inches

deeper than the IIs; these two speaker systems are equally wide. A metal frame covered with a black grille cloth covers the midrange/tweeter panel. It is easily removed giving the listener a greater feeling of sonic transparency when serious listening is called for. Priced at under \$1800, it seems to me that the II's make an excellent choice for someone who desires to take that first step into high-end audio, but is on a realistic 1994 budget.

The Alón II speaker system, \$1950. 39" H x 11" W x 18" D, available in natural oak or black. Acarian Systems, Ltd., 15 Woodview Drive, Nesconset, NY 11767. Phone 516-737-9369, fax 516-981-3476.

Reference system: Melos MA-333/220 preamp; Basis turntable; ET II/improved arm with Wisa pump; Koetsu Black & Lyra Clavis cartridges; Purist Audio and van den Hul cables; Jadis JA-80 amps; Wilson WATT/Puppy Series II speakers.

Audio Research *SP-9 Mark III*Preamplifier

Ron Nagle

If you are like me you are curious, and each question once answered only leads to yet another question. After all, audiophiles are we, sailing on the same sonic sea. As the years go by we pack putty around our cartridges, slip tight bands over our tubes, and purloin heavy objects to place on top of our equipment. And so it goes. I remember years ago staying up, burning the midnight oil, soldering iron in hand, flux smoke burning my eyes. I couldn't wait to find out what those WIMA

polypropylene capacitors would sound like in the output of my many times modified PAS preamp. It wasn't too long ago when I espoused the conviction that the best sounding system would probably be a carefully chosen mix of tube and solid state amplification, reasoning that I could blend the natural harmonic quality of tubes with the power and speed of solid state. Back then I drove my Dynaco PAS preamp into a Dynaco 416 solid state muscle amp. Later on I used an Audible Illusions 2C preamp feeding an Adcom 555 power amp. Just when I had the whole

thing cleaned, banded, buffered, belted, weighted and really singing, of course I had to mess with it!

BUT A NICE MESS

I went out and bought a pair of Quad ESL-63 speakers, which I thought delivered a tonally cohesive sound throughout the mid-range, and which (according to then-current thought) needed high quality tubes to complement their harmonic abilities.

Continuing my line of reasoning, I purchased an Audio Research D-115 Mark II power amp, which utilizes a hybrid circuit design, wherein tubes are fed by FETs. Since then I have continued to upgrade my system. At the present time I have an Audio Research's SP-9 Mark II feeding a Classic 60 power amp. Both are examples of hybrid circuit design. Being curious, I longed to get my hands on the newest souped up version of the SP-9, the Mark III. Luckily, the gods smiled on me and Audio Research agreed to send me a sample for a listen. (For the sake of shorthand, from here on in I'll refer to them as the Mark II and the Mark III.)

DEUS EX MACHINA

I came home one Monday evening to find that the UPS man had delivered a big white box from Audio Research. The first thing I did after unpacking the Mark III was to pull the covers off the top and bottom and compare the board layout and components of the two units. The Mark II uses many yellow Rel-caps and Wonder Caps bypassed by smaller value Wonder Caps. In contrast, the Mark III's board displays MIT capacitors combined with smaller MIT bypass capacitors coupling the line and phono sections. Additionally, a second, like-value power supply electrolytic capacitor is added in parallel on the bottom of the main board, doubling the storage/filter capacity.

Other changes for the Mark III include a new input circuit board layout that reduces point to point wiring, and gold-sleeved tube sockets with a higher pin contact pressure. The tubes are two Russian sourced 6922 triodes, a more rugged version of the 6DJ8 used in my Mark II. Something I found very interesting was the "wet" appearance of the tube sockets and bottom of each tube. A call to Audio Research informed me that they dip each tube in Cramolin Red to help reduce pin contact oxidation. This is a neat little tip that might benefit anyone who owns tubed equipment.

The control panel on the Mark III is the same as the two previous versions. And even though the SP-9 has been around for quite a few years (well over seven thousand units sold world-wide) a brief description of the controls should be part of any review. Across the front panel are four control knobs and four, two-position, bat style toggle switches. From left to right the control knobs are: a gain control (a high quality 31 step metal film potentiometer); a balance control (which is also detented); a mode control with five positions (mono, reverse, stereo, left, right); and an input selector, also with five positions (phono, tuner, CD, video, spare). The toggle switch functions are: on/off; mute/operate; tape 1/tape 2; and monitor/source for the tape loop. Changes in resistive or capacitive phono cartridge loading must be accomplished by soldering different values at the phono input turret terminals on the bottom of the main board.

On the rear panel of the Mark III are ten pairs of gold-plated RCA inputs. The left-right connectors for each function are more clearly marked on the Mark III by larger, color-coded red and white plastic washers. Audio Research has changed the Mark III front panel by eliminating the rack mounting hole, and has added a heavier gauge aluminum face plate with black handles. To my

eye, the effect is more solid and substantial.

LISTENING

To fully appreciate what Audio Research has wrought with the Mark III, I must give the reader a sense of what the Mark II sounds like. The day I first brought the Mark II home, I ran it alongside my Audible Illusions 2C. I experienced the traditional audio anxiety nervosa which we all know so well: My God, I spent so much money and I don't even know how this thing will sound in my system . . . what if my wife finds out . . . arrggghhh!).

The first thing I noticed was a clarity that had been missing. Detail I didn't know existed emerged from a blacker background. A very similar impression remained with me after I heard an SME 30 table compared to a VPI TNT. The VPI had sounded fine, but the SME just seemed to disappear more. Exactly how this happens I don't completely understand; I guess that's the difference between an engineer and an audiophile. The sound of the SME was right because it felt right! First it impacted on my emotions; only later could I put those emotions into thought. The component got out of the way. I was listening into a space of limitless depth with music layered over it.

So it was with the Mark II. Quiet. I listened harder trying to pinpoint the new locations the music came from. There was greater speed, more harmonic overtones from the midrange on down, a wealth of detail and more defined image placement. In short, there was an improvement in almost every area (save the very tip top, which was about equal). All in all, for about double my money I felt it was worth it. It has been in my system for two years now. I've listened to many other preamps and I haven't wanted to replace it; nothing struck me as doing anything significantly better.

ENTER THE MARK III

I followed the manufacturer's recommended minimum burn-in period of 48 hours using a CD player set to repeat play. Thereafter I left the preamp plugged in and powered on during the course of the listening evaluation, which lasted several weeks. A/B-ing the phono stages and then the line level CD stages, I made a concerted effort to eliminate as many variables as possible. I used only three recordings, which I have both on vinyl and on polycarbonate/aluminum (CD), all of them old friends well known to me-tried and true reference sources. I chose these three because each of them is significantly different from the others, yet all are rich in the the kind of musical nuances that tell me something about speed, frequency, tonal colors, ambiance, staging and image specificity (size and depth). The first is Basia, Time and Tide (Epic, FE 40767). Next is Famous Blue Raincoat (Cypress, A&MYL 0100). Third (and I think everybody knows this one!) is The Weavers Reunion at Carnegie Hall (Analogue Productions APF-005).

The Time and Tide LP was reproduced by my Mark II with a soundstage arcing back from behind the speakers, with the deepest part in the center (a "bow" effect). This makes the lead vocals seem to emerge from a point beyond the plaster on the rear wall. The record has very good dynamics, and on a good system you hear a multitracked studio mix with each instrument recorded separately. An overall recombination with reverb added pulls it together. Faders and pan pots place the individual instruments left/right and front/back. In short, a slick effort complicated enough to provide many aural clues. The worst thing I could say about the Mark II on this recording (and a few others) is that it had a tendency to place some instruments—usually small percussive things like brushes on cymbals—directly on the speaker grilles as though they got

stuck there. To be absolutely fair, I suspect that my room and the side walls, which are close to the outside edges of my Quads, are probably a factor here.

Same recording, same cut, switch to the Mark III: The first thing you feel is power—more bass, deeper bass, with much better control and pitch definition. The next thing that pulls your earlobes is an awareness of better separation of individual voices or instruments. This separation is greatest, as you might expect, toward the middle of the soundstage. The ability of the Mark III to render a sense of depth within that stage is also improved to about the same degree. I've come to believe that this quality is a result of speed—less time smear.

Did I just hear somebody in the back say, "How do ya figure that?" Well Bunky, it has got to be those MIT capacitors and their shorter dialectric memory. These caps charge and discharge much faster. The speed of these caps also implies that they are passing only the signal present at that instant, leaving no residual effect from any previous signal. This sense of distinct separation extends across the musical range from top to bottom, but it is from the midrange on out to inaudibility that most of this speed translates into spatial information. In short, with the Mark III you can more clearly make out the separate tracks that were mixed down to produce this recording. In contrast the Mark II blurs the outlines to a much greater degree. Didn't Yogi Berra say, "You don't know what's gone until it's missing?"

Now let's see what this same recording sounds like on the CD through the Mark III line stage. The bottom end, like the analogue version, is the first thing that grabs you—deeper, more powerful bass with better definition. This effect of definition is wrought by the listener's ability to hear smaller details in the musical mix (details that extend from top

to bottom) to the same extent that you hear on vinyl. The effect can be problematic if you play a CD with a metallic edge in the topmost octaves. I soon learned the Mark III is far less forgiving of any digital artifacts that might harden high frequencies. Still (and I have to admit I was surprised) the overall improvement is just as great as the improvement I heard in the phono section. I had made an assumption that the smaller signals generated by a phono cartridge would most benefit by what is essentially a component upgrade. Wrong!

MOVING RIGHT ALONG

I jump back to the Mark II and plunk the needle down on Famous Blue Raincoat. There is something on this recording that I always listen for: Leonard Cohen's deep, gritty background singing on the cut "Bird on a Wire." At times it sounds like a throaty chest rumble, and (this is the weird part) it's always low down in the sound field hovering just above my rug. I listen through the Mark II then change to the Mark III and play the cut again. First reaction: Oh Wow! This is clearer; listen to the sound of the triangle. It occupies a distinct place above and near the inside of my left speaker. The Mark II sounded lighter, more feathery by comparison. The Mark III, while sounding open and extended, has a low end that puts flesh on the bones of the music. The effect is that music is much more satisfying and emotional; something subliminal clicks in and seems right. The soundstage now is expanded and I can hear into the rear corners behind the speakers. OK!

I quickly jump to the CD version through the Mark III. The soundstage shrinks. The effect of the rear stage expansion is much less in evidence. The depth and decay is foreshortened. It only highlights the kinds of limitations passed along from my CD source. The Mark III line stage still has superior speed, separation and frequency exten-

sion (top to bottom) compared to the Mark II, but now I can hear how this CD is limited in terms of spatial information. The Mark III is a very revealing preamp.

To really put this to a test, we need a change of venue. So let's try a large symphony hall and an ambient sound space to find out how this sucker really images. I'm referring to The Weavers Reunion at Carnegie Hall. As before, I started listening to the vinyl version through the Mark II and then switched to the Mark III. Low and behold, there it was: "the space." The Weavers were standing, spread out with their instuments, side by side. I could follow each individual voice. I could close my eyes and visualize a hand hitting that tambourine. I could follow Lee Hays voice throughout "Woke Up This Morning" all the way to that last note, his deep bass holding on to the last "ah" in "alleluia."

I realized something: I'm having a lot of fun. The music pulls me right in and I'm singing along, clapping my hands. This is what the Mark III does best. It comes into its own by unraveling individual musical elements and expanding the ambient space in such a way that it enfolds you and you become a part of it. Is that me singing the chorus of "Goodnight Irene?" Yep! What about the CD version? It's OK, much better than through the Mark II. But this is not where the III shines. You lose that transient attack, the outermost edges of Carnegie Hall cannot be sensed, and individual outlines are not delineated as before. I struggle to locate Bernie Krause and the sound of plucked bass within the acoustic depth of that stage. I believe that the Mark III is truthfully reporting what it hears and it is not adding anything amusical. Rather, it is showing up the limitations of the CD and my CD front end (limitations, incidently that I didn't know I had).

I think I now have a clear sense of the Mark III, and over these past months it has grown in my esteem. If I have a minor quibble it would be that in choosing the fine line between classic tube sound and solid state speed, the top octave can get a touch too close to grainy Silicon Valley. Euphonic this preamp certainly is not. If anything in your system exhibits the aforementioned nasties this thing will dump them in your lap. It might be that in subtle ways it continues to break in and get better. All I know is I'm going to be hard pressed to do without it! Any person who likes large scale, dynamic, complex orchestral works owes it to themselves to audition an SP-9 Mark III. It is an across the board improvement over the Mark II. It shares a familial sound with the previous SP-9s, but lifts the grunge and haze that blur the outlines of individual components within the sound field, and pushes that defintion deeper and higher than any SP-9 before.

If you are looking for an audiophile quality full function (phono/line stage) preamp, then I highly recommend that you go out and audition the Mark III. Happy listening!

P.S. The SP-9 Mark III price has gone up by about \$500. It now sells for \$2,495. The Mark III update is available to owners of older Mark II units for \$695. Original SP-9 owners can update their preamps for \$995 suggested retail. The newest style front panel and handles will add an additional \$200 to the cost of the update. Call Audio Research first for authorization. Incidently, congratulations to Audio Research on this their 25th year!

Audio Research SP-9 Mark III preamp, \$2495. Audio Research Corp., 5740 Green Circle Drive, Minnetonka, MN 55343-4424. Phone 612-939-0600, fax 612-939-0604.

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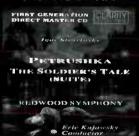
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Reviewer's System: Sota Sapphire Mark II with electronic flywheel and custom 24 VDC power supply; Grado Signature tone arm, wrapped with analogue survival kit arm wrap, and Sumiko Blue Point Special cartridge; modified Magnavox CDB 624 pushing digits through a Musical Fidelity Digilog D/A converter, both weighted down; Monster M1000 interconnects; Audio Research SP-9 Mark II and III

preamps; Audio Research Classic 60 power amp; Quad ESL 63 with Crosby modifications mounted on lead filled Arcici stands; Audio Research litz line cable; Mod Squad Tip Toes, VPI bricks, VPI 16.5 record cleaning machine, industrial 20 amp line filter, separate isolation transformer feeding CD player, Radio Shack sound level meter, Stylast, Kontak cleaner, Last record treatments.

Coda Technologies Amplifier 11

Paul Lupie

oda Technologies made their debut in the high end marketplace with their products' first public showing at the 1990 Toronto CE-EX with a product line made up of high-performance audio amplifiers and preamplifiers. Founded by four former employees of Threshold Corporation, Coda maintains a design philosophy that embodies a minimalist design approach. Simply stated, they endeavor to achieve "maximum linearity and minimum distortion during transition states" while providing a truly musical experience for the listener. The Coda Amplifier 11 (pure class A 100 watts per channel) indeed reflects this design approach.

DESCRIPTION

The Amplifier 11 has a handsome appearance set off by machined aluminum with a black anodized bead-blasted surface. Incidentally, all metal parts, both interior and exterior, are anodized. The input and output connectors and controls are clearly labeled on the rear of the amplifier. Coda provides Swiss made Neutrik balanced inputs and a standard gold-plated RCA configuration. The speaker connectors are also gold plated. Their positioning on the upper portion of the amplifier makes user

access convenient and mistake proof. Coda does not provide any fuse protection for the speakers, as they feel this would interfere with the amp's low output impedance. The owner's manual clearly states that the onus for speaker protection is placed on the speaker manufacturer, who would best know how to protect their own products.

Besides the AC line input, the back of the amp has a master main power switch. This can be left on at all times because there is also a Selector Control on the front of the unit that will affect power consumption. This control turns on the bias, selects the loading for either balanced or unbalanced operation, and opens shunting relays that mute the input. When the Selector control is in the "standby" position, the Amplifier 11 draws a negligible amount of current about 10 to 15 watts. There are three LEDs located on the front of the amp, just left of the Selector Control. One indicates that the amp is in an operational state, and the other two indicate that the bias is activated for balanced or unbalanced inputs.

And now for some additional technical stuff: circuit boards are fiberglass epoxy with gold plating over a tin/nickel barrier; resistors are all metal film for high reliability—1% for 1/4 watt and 5% for

1 watt. Consistent with the conservative design approach, all capacitors have been eliminated wherever possible. Coda states, "No cap is better than the best cap." Electrolytics are only used in the power supply where large values provide enormous filtering capacitance for the supply (200,000 micro-farads with very low ESR and inductance). In the amplifier's front end, high quality dual FETs are used because of their "superb noise performance and precision matching," says Coda.

Of primary importance to you, the audiophile consumer, is the sound. There are two design features Coda engineers have implemented that they feel are the primary contributors to the incredible transparency of the Amplifier 11. First, no negative loop feedback is used, thus preventing any EMF emitted by the speakers from modulating the input stage. Second, the Amplifier 11 employs a "Precision Bias" technique that ensures seamless performance regardless of the complexity of the load impedance.

Say What? Remember, the load impedance of the loudspeaker changes with frequency; any Class A amplifier may at some point leave Class A operation when forced to drive loads of sufficiently low impedance at high power. This transition between operating states, A to AB, generally will produce an abrupt increase in distortion. The Amplifier 11 uses bias voltages and component values that have been selected to produce a very gradual slide between operating states, thus resulting in linear current draw and virtually no change in the distortion waveform. This process is also very effective at eliminating certain forms of IM distortion that often occur under these conditions. The Coda's bias circuitry has a high degree

of stability under a wide range of temperatures and load conditions, making it extremely effective in controlling the bias currents.

THE SOUND

"Nice, nice. Not thrilling, but nice!"
Now chill out all you piranhas out
there. This is not a knock. This is the
way it should be—extreme transparency, a true validation of an audio component's musicality and listenability. I
found that within minutes of beginning
a listening session, I forgot the amp was
there and settled down to real musical
enjoyment. The Coda Amplifier 11 definitely exhibits the signature of other
Coda products, like the FET-01 Preamplifier: accuracy with exquisite detail
and imaging. It's a very smooth performer. Refined, almost conservative.

This amp requires some thought when it comes to system matching—speakers in particular. If you have been devoting your life to taming the highs on your system, this amp may not be your best choice. The treble is so clear, with excellent detail and transparency, that speakers already exhibiting an overly bright coloration may indeed have this quality exacerbated. (No, this does not cause acne!) This condition is exaggerated when using the single-ended versus the balanced inputs. But if your full-range speakers are suffering from terminal ennui, that down-in-the dumps dullness, then run right down and pick up one of these babies now! Just remember, the word harsh, or brash has no place in any vocabulary describing this fine piece of equipment.

Schedule-wise, this has been a tough year for me , but I did free up some time to spend with the Coda Amplifier 11. My tastes in music are quite varied, bor-

¹ Should be recognized by all you Mel Brook's fans from History of the World Part I—Hail Caesar!

dering on eclectic, with a definite bias toward classical and jazz. Having some formal musical training, I am usually very sensitive to the musicality of components, and the Amplifier 11 has one of the most musical and lyrical sounds I've ever heard. I was always at ease listening to its unlabored presentation. But the trait that immediately jumped out at me was the resolution of individual sounds. Orchestral instruments were three dimensional. Loften use scores to follow music when I am listening, and I've developed a habit of following obscure lines and motifs in music I'm familiar with. Because of the Amplifier 11's ability to present each section or instrument with so much "air" around it, I am able to satisfy this penchant for the obscure with ease.

So I went straight to one of my favorite disks, *Raritaten fur Kontrabass* (Ars Vivendi 2100196), which contains some de-

lightful chamber pieces for double bass. I began with Rossini's Duet for Cello and Bass in D Major. The duet treats the bass as a melodic equal, just as in any other duet format. That means that you hear some glorious lower register presentation of thematic material. The bass delivery from the Coda was extremely tight and solid. I could effortlessly distinguish the between the tonalities of the cello and double bass. Each instrument's dialog with the melodic line was clear and un-muddled. We rarely have the opportunity to follow a lead melodic line in the lowest depths of an instrument's range. I have played this disk many times, and I can tell you that more often than not the pitch and texture of adjacent notes can be indistinguishable in a poorly balanced system. The Coda was an exception to this rule, with fine detail and the subtlety of each nuance resolved in each passage of the music.

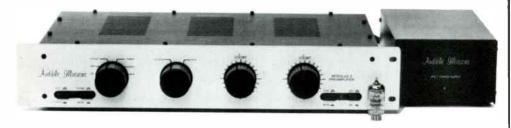
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As a contrast to this type of bass sound, I then played Mighty Sam McClain's "Too Proud" from Give It Up To Love (Audioquest AQ-CD1015) and the title cut from Alpha Blondy's Jerusalem (Shanachie 43054)—traditional blues sound from Mighty Sam and pulsating reggae rhythms from Alpha Blondy. The punch and drive one would expect as standard fare from this genre was delivered with ease by the Coda. I was delighted by the roundness of the sound, so rich and deep. I have a real disdain for muddy bass, so I am hard to please when it comes to the bottom end. The clarity of the bass was augmented by a wonderfully satisfying midrange sound. The Leslie effects on the Hammond Organ were real and three dimensional in their presentation. The pounding of the kick drum bolstered the whole ensemble with a larger than life sound.

The intricate ensemble quality of Schubert's Piano Quintet in A major, *The Trout*, by the Wiener Philharmonisches Streichquartett (London 417459-2) was never lost in this hefty chamber piece, and I was able to follow a melodic line at any point in the piece even though it may have been secondary or even tertiary to the current dominant thematic part.

One of the most endearing arias ever written by Mozart is from his very early opera *Zaide*, "Ruhe sanft, mein holdes Leben." The rendition of this piece by Kiri Te Kanawa on *Operatic Arias* (Philips 411 148-2) is re-created accurately and beautifully, with total truth to the sound of Ms. Te Kanawa's voice. Vocal representations are always so revealing—especially if one is familiar with the artist from live performances. The Amplifier 11 delivered a truthful presentation of the human voice.

I often use choral works at this point in my listening to critique soundstage. Soundstage is revealed through the subtle presentation of its parts, which should be candid though not blunt and clumsy. The width, the depth, the three dimensional image, should surround you without suffocating you. An old stand-by, Ariel Ramirez's Missa Criolla (Philips 420 955-2) was popped into the transport, and the magnificent resonance of the Santuario de la Bien Aparecida came to life in my listening room. The beautiful alto line that occurs just before the tenor entrance (Jose Carreras) is captured with all the warmth, tenderness and lushness that is called for by the composer.

Further exploring the choral repertoire, I was truly surprised to find that I could distinguish the different timbres of the voices within a voice range. For example, in the Faure Requiem (Philips 412 743-2) I could hear some of the individual qualities of the singers within the alto range. The ability of an amplifier to deliver this level of sonic resolution is wonderfully satisfying. Equally impressive was the delivery of the ambiance in the magnificent recording of Arvo Part's Te Deum (ECM New Series 1505) 78118-20003-2). This marvelous recording, made in the Parish of Lohja at Lohjan Kikko, Finland, contains some of the most incredible soundstaging and acoustic resonance I've heard on CD. Not surprisingly, the Coda once again excelled in reproducing this sound quality.

There is an amazing sound effect on the "Bait and Chase" cut from the Alien 3 soundtrack (MCA 10629) that should crisscross your listening room and then encircle the sweet spot. Listening to it with the Amplifier 11 in the loop was a trip! The sound was almost touchable. Give it a shot in a darkened room; it will make your skin crawl (try whistling this while you work)! It's definitely a fun disk to experiment with.

In conclusion, let me say that I wholeheartedly recommend this amplifier with the system matching caveats stated earlier. This is a component designed and manufactured with very high quality and, for an amplifier that delivers true Class-A performance to 100 watts, is actually a bargain. Definitely a must audition for anyone seeking a state-ofthe-art amp.

Coda Technologies Amplifier 11 Pure Class A amplifier, 100 watts per channel. Price: \$4700. Coda Technologies, Inc., 9941 Horn Road, Suite A, Sacramento, CA 95827. Phone (916) 363-4653; fax (916) 363-4627.

Associated Equipment: Aragon 4004/Mark II Power Amp; Aragon 24K Preamp; Apogee Mini Grand Speaker System with Subwoofers; Theta Data CD Transport; Rotel RCD-855 CD Player; California Audio Labs Sigma Processor; Monster Sigma Speaker Cables and interconnects; Byteline 111 Digital Coax.

The Snell *B minor* and the B&W 802 Series III

Mark Block

hile the B&Ws were breaking in V on my upstairs video system and the Snells were purring away down in the basement high-end dungeon, I was already writing the lead in my head. It went something like this: "In spite of the dramatic differences in appearance—the B&W 802 looking like R2D2 on Slim-Fast, the Snell B minor like a squared off tree trunk—both of these speakers aim for frequency response linearity, and so it shouldn't be surprising that they sound strikingly similar." Then I did the actual comparison. It was quickly apparent that I had to eat those words and come up with some new ones. Try these: In spite of their frequency response linearity, these two speakers sound as dissimilar as their appearance would suggest.

FIRST THE SNELLS

The B *minor* is a departure for Snell in several respects, the most important being its narrow front baffle with drivers arrayed vertically in a D'Appolito-like

arrangement. Snell calls the design MTM. I know what you're thinkingno, it doesn't stand for Mary Tyler Moore; rather, it's an acronym for Midrange-Tweeter-Midrange. Two 5.25" polypropylene mids are positioned above and below a 1" aluminum tweeter, with all drivers offset slightly toward the inner edge. The effect is a virtual point source centered on the tweeter. The advantage to this array as opposed to a true dual concentric design is in its freedom from on-axis amplitude irregularities and off-axis lobing. Smooth off-axis response has always been a Snell goal, and designer Kevin Voecks believes that a smooth power response is crucial to tonal accuracy in real-world listening rooms. A thick felt pad surrounding all the drivers on the front baffle helps further insure smooth response and pinpoint imaging.

The problem with a narrow baffle is that it's incompatible with low bass response. Where the hell do you stick your 12" woofer when you've got a baffle only 8" wide? There are several answers to that question. One of the most popular nowadays is: Stick it where the

sun don't shine! That is, off in a corner in the form of a subwoofer. There are some advantages in such a set-up, but the disadvantages may outweigh them: namely, crossover complexity, extra wiring and driver integration. There may be a good place in your room where the subwoofers mate well with the satellites, but the likelihood of the typical audiophile (or even the dealer) finding that spot is remote.

The other common solution is to build a pointy cabinet, narrow at the top but wide enough for the woofer at the bottom. This, of course, can increase cabinet costs dramatically. More cost effective is the "lots of little uns" approach: Use several small drivers instead of one big one. Again, there are many advantages to an array of small woofers-the B&W 802s use two 8 inchers instead of the one big bruiser 12 in the 801—but there is a potential downside. The designer must contend with two different reflections off the floor. and interference patterns at frequencies in which the midrange drivers overlap become more complex and harder to correct, particularly if shallow crossover slopes are desired. John Dunlavy's trick—to make a mirror image array of woofers above and below the other drivers—again adds to the cost, as the cabinet now must be exceptionally tall if the acoustic center is to remain at ear height.

Voecks' strategy is clever in conception but obvious once you see it. He merely extends the depth of the cabinet and mounts a large woofer—12" in this case—on the side. The side-firing woofers aim at each other when the mirror imaged pairs are set up correctly. The NHT 3.3, also in this price range, does something similar, but uses a mandatory rear wall placement to insure a controlled bass reinforcement. The B minor is more likely to be positioned out from the wall, with potentially better sound-staging accompanied by less predictable low frequency response. Because the

center of the Snell's woofer is approximately 24" off the floor, Voecks runs the risk of inexperienced users setting up the speakers with the woofers 24" from the back wall, the side wall, or both—with inevitably severe low frequency standing waves.

The deep but narrow footprint means you don't see much of the speaker from your listening chair, which has a significant psycho-acoustic benefit: Large speakers are so visually obvious as sound sources that they never completely disappear even if they image well. (Maybe that's why I prefer WATT/Puppies to WAMMs.) The MTM design makes the cabinets taller than normal, however, and the extra wood surface area adds to the resonance potential of the speaker. I listened carefully for evidence of any woody, boxy colorations in the music. Although the speakers are heavy and well braced internally, a knuckle rap showed the Snells to be much more lively than the B&Ws.

A 24 dB per octave slope crosses the woofer over to the polypropylene midrange units at 275 Hz, while the titanium dome tweeter kicks in around 2.7 Hz, this time at 18 dB per octave. There is no ferrofluid cooling, but a "conjugate impedance compensation network" results in smooth response in its upper range and high power handling. The crossovers are individually tweaked so that every B minor has a frequency response matching the reference master to within .5 dB.

An annoying level control for the tweeter allows the owner to adjust the treble up or down by 2 or 3 dB in each direction. I say "annoying" because: 1) the speakers sounded most neutral at the normal 12 o'clock position; 2) speaker cables can rub on the knob as they settle in, causing an unwanted change in response; 3) the knob on the right speaker fell off as I was "exercising" the control (rotating it back and

forth); which brings up 4) the pots degrade the sound unless exercised frequently. Audible distortion on test tones and intermittent crackles during music were cured by a weekly "exercise" routine. I don't know if there's a better way to clean the dirty volume pots; I wish there was a way to bypass them.

A rear-firing super-tweeter, common on the top Snell speakers for many years, provides a more uniform power response and creates an airy, three dimensional soundstage—not unlike an electrostatic. The British market has alwavs resisted these foolish American attempts at depth reproduction, preferring instead to push their speakers back against the wall, so Snell includes an on/off switch for the rear tweeter. Snell ships a lot of product to the land of warm beer, so I suppose the switch is a thoughtful touch for our English cousins. Personally, I think only a bloody fool would turn it off.

Snell claims an anechoic response of 1.5 dB from 55 to 22 kHz, with a -3 dB point of 20 Hz in-room. That extended bass response should come as no surprise: A 12" acoustic suspension woofer in a large sealed box ought to be able to reach the lowest octave. What *is* a surprise is the claimed sensitivity. Normally, acoustic suspension designs trade bass extension for efficiency, but Snell quotes a 90 dB sensitivity, along with a 4.5 ohm minimum impedance at 38 Hz and a 15 ohm maximum at 1 kHz. This should be an easy load for almost any amp. Tube lovers take note.

Bi-ampers and bi-wirers should further note that separate binding posts for the woofers make hook-up easy. I experimented with a double run of Ocos cable to the woofer and a single run to the mid/tweeters, but Kevin Voecks objected to the Ocos, so I also used a single run of Rotel "6 nines" cable (necessitating a jumper between the binding posts). I normally quote manufacturer's

specs with a certain amount of confidence, but just to confuse things I must make mention of a *Stereophile* review in April 1994, which measured the sensitivity at 86 dB, and placed the impedance minimum at 210 Hz, with a 23 ohm peak at 32 Hz. These figures are wildly at odds with the ones from Snell, and would certainly change one's ideas about amp and cable choices in a bi-amped system.

MINOR QUIBBLES

Now comes the "Use and Listening" part of the review, and my quibbles all concern the use rather than the listening. I'll get that stuff out of the way so we can move on to talking about how good these things sound.

—Packing is very poor. This is a large speaker weighing in at 110 pounds, but it comes packed in a flimsy corrugated cardboard carton with inserts at the corners. One of the speakers under review here suffered major cosmetic damage: a broken grille support, cracks in the paint along the seam joining the front baffle to the side panels, and cracked veneer at the top left corner. Amazingly, the speaker sounded fine.

—The manual is pathetic. A guy who pays this much for a speaker expects to get a glossy blurb telling him how smart he is for buying such a wonderful speaker. Instead, you get a cheap little Xeroxed, folded and stapled leaflet that makes no mention of the B minor—it's generic to Snell's product line. It does contain good general advice on set-up and care, but I think the B minor owner will expect more.

—Several of the carpet-piercing spikes were defective (no threads). Snell promptly sent a replacement set. The speakers are drilled for four spikes rather than three, which makes them a pain to get level. The spikes themselves have nuts molded into the threads so they can be tightened with a wrench,

but if any of the spikes need to be loosened to make the speakers level, there are no lock nuts to tighten them down. What I did was tighten the spikes all the way, find the lowest corner with a level placed on the top of the speaker, then loosen the spike at that corner only to make the speakers level. That leaves three spikes screwed in tightly to provide solid coupling.

—The binding posts at the back are set in a recessed panel. As this practice seems to be fairly common, I'd like to send a message to all manufacturers: Stop it, goddamnit! It makes it impossible to fit spade lugs and heavy gauge wire into the speaker posts. In the case of the Snells, the bi-wiring ability is made even more difficult because the positive and negative posts are aligned vertically, with the recessed cabinet edge to the left and a fuse holder to the right; as the wires have to come in from either the left or the right, there's simply no room to fit them without resorting to banana plugs. If you do manage to fit a pair of cables around the fuse holder, the wire ends up hanging out sideways from the speaker. Awkward design all around. And to top it off, just as I was putting the finishing touches on this article, one of the posts snapped off as I tried to tighten it onto a spade lug.

—The rectangular baffle is ugly. I wish the corners were rounded off, both for aesthetic and sonic reasons. Sometimes, when the music stops and I notice the speakers, I get the urge to grab some woodworking implements from my tool kit and start shaving off all the square corners. Thiel does it right—why can't Snell? Having lived with the Thiel 2 2 for several months last year, I got used to the beautiful wood and sexy, rounded lines. The Snells, by comparison to either the 22 or its big brother the 3.6, are big, square, ugly, speaker-looking things. No audio naif guest will ever come into my room and say, "Oh, what are those? They're lovely." AT \$3900, the 3.6 is a direct competitor of the B minor, and although my experience with the 2 2 (see review Volume I, issue 2) has led me to stay away from the 3.6, there's no denying that the Thiels are much more handsome speakers.

MAJOR SOUND

With the speakers toed-in a little, the narrow baffles present a mercifully small visual distraction. Because of the speaker's wide dispersion, I found that careful toe-in was important, even critical. The problem with the wide dispersion philosophy is that side wall reflections can muck up the image and destroy the stereo illusion. Not enough toe-in did just that, spreading out the high frequencies rather than focusing them; this was easy to hear using mono pink noise. With the correct toe-in, however (and a properly positioned listening chair), I got the tightest mono image of pink noise I've ever heard. And once I got the pink noise focused, the speakers did much better on the L.E.D.R. test, although the "up" wasn't exceptional. For the record, I didn't have to aim the speakers right at me; I would estimate that my ears were about 10 or 15 degrees off the tweeter axis.

Most audiophiles believe that low-order crossovers and time alignment are necessary for the reproduction of depth, but the Snells (when positioned out into the room using the Rule of Thirds) fly in the face of that dogma by providing depth as good as either the Thiels or my old Acoustats. They're not in WATT/Puppy territory, however. Further, with the proper electronics (read: tubes) the sonic images float free of the speakers right out to the extreme edges of the soundstage. Even when I stared at the speakers and tried to imagine them as sound sources, I couldn't—the music came from everywhere but the speakers.

I mentioned tubes as being the "proper" electronics to use with the Snell B *minors*, but that may be a little too strong.

With a 200 watt Rotel solid state amp in the system, the bottom end cleaned up a little, at the expense of some soundstaging nuances. The 12" woofers, mated with tubes, form sort of an "I'm OK, you're OK" relationship, neither one controlling the other. But the woofers also enjoy being dominated by a strict, firm amp with a high damping factor: "You vill zound tight, und you vill like it [sound of whip cracking]." I thought the bass was a little thick and "woolly" at first, but with careful system matching it can be eliminated. The Rotel amp and speaker cables, a good, low-jitter transport like the Meitner, a Sonic Frontiers front end (balanced, with optical cable from transport to processor) and spikes underneath the B minors did the trick in my system.

If I had to describe the sound of the Snells in one word it would be "big." The Snells are dynamic, gutsy, detailed without being harsh, and they create a soundstage that grabs you, pulls you in and envelops you. They're very impressive in a hi-fi sense, but they also do justice to the music.

Example. Willie Nelson's Across the Borderline (Columbia CK 52752) is one of the best recordings of last year, and a good reference tool: It's very clean, very open, bassy but not too, with a vocal that can sound either too bright or too warm depending on the system. Up high, the Snell's tweeter gets the metallic texture of the cymbals just right, reproducing good air and bite, with just the slightest trace of roughness—nothing that got in the way of my enjoyment, however. I think of myself as someone who's fairly sensitive to treble harshness, but my acutely sensitive friend Anne Marie heard the Snells and, although she thought they were excellent, she didn't think they had the same quality of transparency and detail without harshness as the ProAc Response 2. So for people like her, that tweeter level control might come in handy; backing it

off just a dB or so can make a big difference.

Down in the midrange, Willie's voice sounds detailed and pretty neutral through the B minors, with just a hint of thickening. Moving up closer to the speakers caused the slight chestiness to go away, so I it could be a room problem. At the bottom of the range the bass lines are powerful yet easy to follow. A hand on the cabinet during "What Was It You Wanted?" revealed some undamped resonances, but I couldn't hear them in the music. Like second order harmonic distortion with tubes, the resonances of the Snells seem to be fairly benign.

I'm going to come back to the sound of the B minors by way of comparing them to the B&Ws. Let me just add that I'm very satisfied with these speakers—all the things I want a hi-fi loudspeaker to

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818/242-4535 Fax 818/242-4415 CODA • LEGACY • MONARACHY do, the Snells do very well, indeed and I'd be hard pressed to intellectually justify spending significantly more for any speaker. (That is, until I hear something I just gotta have—and anyway, who justifies these things intellectually?)

THE COMPETITION

The 802 Matrix series III is the latest version of a speaker whose model line has become one of the all-time classics in audio: the fabled 800 series. The 802 uses the same midrange/tweeter rotating head assembly as the more expensive 801, but with a thin, attractive woofer column replacing the 801's fat, squarish box.

The slim enclosure has no room for a large woofer, so B&W squeezes in two smaller drivers, one on top of the other. Each woofer driver is an 8" "high polymer" cone that B&W describes as "heavily damped to remove unwanted colorations, and fitted with a massive 13,000 Gauss magnet, to give the required sensitivity and bass control." I can attest to the intensity of the magnetic field: While breaking in the speakers on my video system, I played Jim Aud's System Enhancer disc for an hour, and discovered to my displeasure that the TV, which was two or three feet from each speaker, had been magnetized in the corners nearest each speaker. Jim's CD obviously gave the magnets quite a workout.

Below the drivers is a smoothly flared vent to extend bass response; I heard no chuffing during either music or test tones. Bass alignment can be had two ways; the way that costs you extra money is with an active, sixth-order Butterworth filter that extends bass response to 25 dB (-3 dB), after which it rolls off quickly to filter out sub-sonic garbage. Most high-end purists forego this external box, which connects between the pre and power amp or in the preamp's tape loop, because the additional circuitry makes us nervous. The

au naturel bass alignment is a fourth-order Bessel, with response down 9 dB at 25 Hz.

The familiar "rotating head" contains a woven Kevlar midrange unit and a 26 mm metal dome, same as the big brother 801. The midrange is crossed in at 400 Hz, and the tweeter at 3 k. Several new wrinkles in the Series III improve the performance over the earlier edition. The head assembly is no longer detachable, so there are no contacts to degrade performance. The tweeter is now fluid cooled, so the much-criticized APOC protection circuity has been discontinued. B&W also touts "a crossover design completely revised in line with current thinking to reduce component count. The bass and high frequency boards have been isolated to reduce crosstalk. . . . The bass inductors now use a new iron dust core that produces lower distortion than larger laminated types and far lower DC resistance than air-cored equivalents." Some of these changes have been around in the form of "Da Hong" mods [Da Hong Seetoo is a New York area musician and technician who specializes in the care and feeding of [adis electronics] to the earlier generations of 801s and 802s. I guess the factory guys eventually came around.

The midrange/tweeter sub-assembly is practically all driver, no cabinet, so it's essentially a very small mini-monitor sitting atop a separate woofer. The lack of cabinet edges means that the dispersion pattern is extremely wide and smooth. B&W claims a horizontal response of +0/-3 over a 60 degree arc. Other notable claims are made for its distortion performance: less than 1% second and third harmonic from 20 Hz to 20 kHz at 95 dB. Some tube *amps* (like my Defy 7) can't match that! And speaking of tubes, the sensitivity of 90 dB and impedance minimum of 4 ohms should be easy for almost any amp (with the exception of single ended triodes). B&W does the same exceptional job as Snell in matching these speakers to the factory

reference. My pair came with a response graph indicating an almost perfect match to the reference, and a dead perfect match between the two speakers of the pair.

Binding posts at the rear accommodate bi-wiring; a jumper (not supplied) must be used with a single run. Threaded steel spikes are provided for proper coupling to the floor. As with the Snells, four spikes per speaker are used—so leveling is difficult—but unlike Snell, B&W supplies lock nuts to insure that all spikes are tightened down.

I haven't mentioned the "Matrix" construction of the cabinets because I assume it is familiar to all audiophiles reading this review. B&W's proprietary internal matrix of braces produces one of the stiffest, least resonant cabinets in audio without creating an impossibly heavy speaker. The 802s weigh 70 pounds each—heavy enough, but easily manageable. Each speaker was individually packed in its own carton, and protection from wayward forklifts seemed much better than with the Snells. The manual also was a clear improvement over the Snell leaflet, and I noticed a quality control sticker indicating that the speakers were checked by three different individuals at three different points during the manufacturing and testing process. Further thoughtfulness is evidenced by a factory-supplied brush for cleaning the grilles. All the little things are done right, and this surely must give the new B&W owner a feeling of pride and confidence.

THE SHOWDOWN

In all areas save sonics, the race between these speakers is a romp for B&W. The high-tech cabinet and drivers, the "form follows function" sexiness of the styling, and the evident attention to quality from drawing board through assembly line to delivery to the consumer made me love the B&Ws before I even touched cable to binding post. And my first night of listening (after a lengthy break in) did nothing to change that emotion of love at first sight/listen. I had a great time, staying up all hours to put the 802s through their paces.

I did, however, run into some trouble with the speaker's sensitivity. The high gain line stage of my CAT Signature preamp, when fed by the 3 V output (padded down from 6) of the Theta Gen. II, gave me only a three clickstop range between no sound and too loud. The Sonic Frontiers SFL-2 line stage solved that problem, but with some added thinness and even a hint of roughness. In went the Sonic Frontiers SFD-2 processor, and all was sweetness and light (obviously, my old Theta is showing its age). Willie Nelson's Across the Borderline went from being hard and sibilant to smooth as a green at Augusta. These speakers made the CAT and the SFL-2 sound so different: Which one is accurate? I don't know, but maybe these speakers are.

Setting up the B&Ws in the room was easier than usual because the upper driver enclosure rotates for easy toe-in. Unusually, I preferred the axis to actually cross slightly in front of me; I would never have even tried it that way were it not so effortless. With the toe-in dialed in to suit my taste, I heard a soundstage that I can describe in one word: pristine. Alright, how about a couple more words: panoramic and focused. The 802s project a soundstage the equal of any mini-monitor in terms of width and focus. The scale, as with a minimonitor, is on the small side, but the clarity is striking.

My favorite reference disc, Roger Waters *Amused to Death* (Columbia CK 53196), exhibited terrific focus out to the sides, particularly on the left side of the stage, where I've always had trouble getting the QSound's processed image to converge properly. This was the smoothest, most natural sound I've ever

gotten out of this recording. Images off to the sides sounded remarkably "normal" and free of phasiness. On "What Was It You Wanted" from the Willie Nelson CD mentioned above, the speakers reproduced decent depth, placing the bongos way to the right/rear of the soundstage. I soon discovered, however, that the depth of image produced by these speakers can vary widely from recording to recording—usually the sign of an accurate, uncolored component.

Michael Ruff's Speaking in Melodies (Sheffield CD-35) surprised me with a rather flat, polite, undynamic sound. Then I flipped the absolute phase switch and heard more dimensionality and greater impact, along with a smooth, laid back upper midrange—very easy on the ears. I don't think phase linearity is a design goal with these speakers, but they do allow you to detect absolute phase on some recordings.

Looking over my listening notes I find unusual inconsistencies, and one night I made a telling comment: "I'm having a night where everything I put on sounds new and different. Clapton's Unplugged (Reprise 9 45024-2) sounds brighter and airier but a little grittier than I remembered it, yet Donald Fagen's Kamakiriad (Reprise 9 45230-2) is smoother and darker than I had thought, with subtle, smooth highs. There's very little here I can put my finger on as a coloration; the speakers simply take on the character of the recording." Ah, but do they? It took a few weeks of regular listening, but I gradually got a handle on the 802's flaws.

On Emmylou Harris' Cowgirl's Prayer (Asylum 9 61541-2) I first thought that the B&Ws were giving me the best bass I'd ever heard in my room, but towards the end of the album I decided it was a little thick and over-ripe; it became cloying, and I tired of it. And yet on Watermark from Enya (Geffen 9 24233-2) the

title cut didn't have the window-rattling bass I'm used to. "What happened to the bass?" I asked in my notes. I began to suspect that the chameleon-like character of the speakers—in the bass, at least—may have less to do with accuracy than with a midbass fatness and a steep roll-off below that. Recordings with true low bass were unimpressive, whereas recordings with lots of midbass sounded overblown. I heard the problem with both the Defy 7 and the Rotel 990, and with both Cardas and Rotel interconnects, so I don't think it was a system matching issue.

Of course, it's always difficult to make hard and fast judgments on a speaker's bass quality, because room acoustics can sabotage even the best speakers. All I can say in that regard is that I used the Rule of Thirds to position these speakers, my listening chair was in a position that has always sounded fairly neutral in the past, and the Snells (along with two other pairs of speakers that I had on hand) were positioned identically to the B&Ws. In my room, all the other speakers—including the el-cheapo MB Quarts reviewed elsewhere in this issue—had smoother bass than the B&Ws.

Midrange detail was good, without any spittiness or sibilance emphasis, and the high frequencies were always smooth yet crisp. Yet, after several weeks of listening, I felt that too many recordings weren't as dynamic as they could be, and too many were missing the bite and metallic edge on cymbals; a pervasive coloration seemed to be papering over high frequency detail. Recordings with already smooth highs definitely lost something through the 802s. Female vocals sounded particularly silky, but male vocals tended to fall on the warm side, and there seemed to be a discontinuity in the lower midrange. I kept wanting to crank the speakers up to get more texture and detail and dynamics, but unfortunately the bass range sounded better with the speakers playing at more reasonable levels. I decided

I needed to do some back and forth comparisons with the Snells to get my sonic memory re-calibrated.

WHICH SIDE ARE YOU ON, BOY?

Before the last shoot-out, let's take a pause for a caveat (they're free). Although I believe it's crucial to do "by the book" level matching, I found it impossible to find a fair way to match levels in this speaker comparison. For instance, I tried both pink noise and a 1 k tone with a microphone at my listening chair, but the Snells always ended up louder—and therefore more impressive—when I played music at supposedly "matched" levels. Differences in both on-axis frequency response and power response into the room conspire to create contradictory results when setting levels with test tones and a meter.

Think about it: Let's say you have on the one hand a speaker with a narrow, gentle dip at 1 k, and another speaker with a slight rise, again centered at 1 k. Neither frequency response error would be subjectively objectionable, but a comparison test with the levels matched at 1 k would result in the speaker with the dip being played 2 dB louder. It would inevitably win the shoot out, all else being equal, because the louder sound will always be preferred. Another example: Let's say speaker A is flat to 20 Hz, while speaker B starts rolling off below Let's further assume that A has wider dispersion in the treble. If you use pink noise to match levels, speaker A will be penalized; it's putting more energy into the room at the frequency extremes, so at supposedly matched levels it will sound too soft on normal music. This experience has led me to question the procedures used by Stereophile for their multiple speaker comparisons.

Further, the Sonic Frontiers preamp used for this evaluation can only adjust gain in increments of 1.5 dB. My ear gave a subjective level match when I in-

creased the gain by 4.5 dB for the Snells, which conforms closely (but not exactly) to the 86 (measured by *Stereophile*) versus 90 dB sensitivity ratings for these speakers. The SPL meter (and a 1 k tone) indicated that it *should* have been a 6 dB difference. So, even though I was playing the Snells *lower* than the 1 k measurements indicated I should have, there is still the remote possibility that my subjective match gave the Snells an unintended edge in loudness.

With that out of the way, I'll come right out and spill the beans: Again, one of these speakers won in a romp, but this time it was the Snell B *minor*. To my great surprise, I preferred the Snells in every comparison I did.

Let's start at the top. Both speakers use a metal dome tweeter, but the Snell B *minors* get the metallic texture of the cymbals just right; the B&Ws sound artificial and papery by comparison. At the other extreme, bass on the Snells sounds cleaner, deeper and easier to follow in spite of the less well-damped cabinet. Chalk one up for acoustic suspension woofers. I guess Edgar Villchur knew a thing or three about speaker design.

The 802s presented a wide, focused image, as mentioned earlier, but the Snells created a HUGE, boundless soundstage. Besides being bigger in the visual sense, the Snell sound was more dynamic and gutsier. It forces you to get lost in the music. By contrast, the B&Ws sounded like mini-monitors with a slightly mismatched subwoofer—not bad on an absolute scale, but not something I'd want to live with, having been exposed to the Snells.

I've written before on musicality versus accuracy, and that debate comes up again when comparing these speakers. Although I believe accuracy must always be the goal, the Audio Uncertainty Principle holds that there is no way to be certain of our judgments because we

can never know how the original electronic signal should ideally sound. One way to get around this theoretical limitation is to simply assume that in the best components musicality and accuracy go hand in hand; they are one and the same. The Snells present good evidence for the correctness of that assumption.

Take Watermark mentioned earlier. The B&Ws are certainly revealing in that they show up the electronic instruments for what they are—electronic. The Snells present a wealth of detail, too, but it's detail that sounds natural, less ugly and artificial. In other words, the Snells make a case for the inherent musicality of this recording, whereas the B&Ws present a case for its inherent artifice

And speaking of artifice, Roger Waters' QSound masterpiece practically defines the word. As with the Enya recording, the Snells made a more compelling case for Waters' extravaganza. For example, the off-stage piano on "Perfect Sense, Part I" was big and sonorous through the Snells, but wimpy through the B&Ws. For those who say that QSound is thin and phasey, so maybe the piano should sound wimpy, I say: Wrong; take a listen to it on the Snells, then talk to me. I said earlier that musicality and accuracy must go hand in hand, and so they do in the Snells, making Amused to Death sound more listenable while at the same time allowing more texture and detail to come through: When the dogs start barking off to the right in the beginning of the album, the Snells revealed a touch of recorded noise accompanying the dogs; I couldn't hear it at all through the B&Ws.

A very good recording that I've found to be a difficult test for many speakers is *Don't Smoke in Bed* by the Holly Cole Trio (Manhattan CDP 0777 7 81198 2 1). At the last CES I heard it in many rooms, and sometimes it sounded tubby and oppressive, other times spitty and bright. On really good systems it should

be neither, and the Snells get it just about perfect. The entrance of the piano on "Every Day Seems Like a Holiday" is full and dramatic with the Snells, but soft and too subtle with the B&Ws. The 802s also tone down Holly's sexy groans—she might as well be straining to pick up a pencil. The musical build was also toned down. Could it be that I'm interpreting less distortion as tameness? No way.

Holly's vocal on "I Can See Clearly Now" had a midrangy quality in the reverb through the 802s, the echo seeming pinched, less full range. The piano even sounded like a cheaper instrument—less sonorous, more clangy. Plucked bass was less impactful, less delineated in pitch. To be fair, the 802s did not make obvious errors; they were perfectly acceptable, just not quite a match for the Snells.

FINAL CUTS

Reading over my criticisms of the 802s, I realize I may be a little harsh in a certain sense. Grading them in terms of "sonics per dollar value," I'd give them a solid B. Adding up their sonic pros and cons, I might be inclined toward a B+. Taking into account appearance and build quality, I might even bump the grade up to an A-. The Snells, however, better the B&Ws in every sonic parameter I consider important. I don't need to add up plusses and minuses on the B minors, because their whole is greater than the sum of the parts. They present all kinds of music in a sonically convincing and emotionally compelling fashion.

I've noticed lately that when I have the Snells out of the system, I hesitate to write music reviews, because I don't trust what I'm hearing. When recordings sound bad through other speakers, I always have the feeling that the Snells could bring out a truer, more accurate and more musical sound.

I don't normally feel the need to have my evaluations confirmed by others, but it never hurts. On two different occasions I played the B&Ws for audiophile friends who expressed an admiration for their styling. After a brief audition of two or three selections, they expressed further admiration, this time for the sound. Among my friends, "Sounds like shit" is the favored expression, but each commented that my system was sounding good. I then took a minute to replace the B&Ws with the Snells, quickly matched levels using music (always coming up with that 4.5 dB) adjustment, and began playing the same cuts. Reactions were quick. My friend Dave turned to me within 30 seconds: "No contest; the Snells are much better." My friend Doug didn't say anything at first, he just spread his arms out wide. "Bigger soundstage?" I asked. "Much bigger. And more real. And the vocal—it sounds less like a recording, more like a human being in the room." After I played all the same cuts through each speaker, he cut to the heart of it: "Every cut sounded like a better recording through the Snells." And that, friends, is what I mean by musicality and accuracy being the same.

Snell B *minor*, \$3599 per pair in oak or walnut. 48" x 10" x 16"; 110 lbs. each. Snell Acoustics, Inc.,

143 Essex Street, Haverhill, MA 01832.

Phone 508-373-6114; fax 508-373-6172.

B&W 802 Matrix Series III, \$4000 per pair in black or walnut. 41" x 12" x 15"; 70 lbs. each. B&W Loudspeakers, P.O. Box 8, North Reading, MA 01864. Fax 508-664-4109.

Reference System: Theta DS Pro Generation II and Sonic Frontiers SFD-2 digital processors; Museatex transport; Well-Tempered Turntable and arm, with Marigo Labs arm clamp and mat with AudioOuest 7000 cartridge; Jadis Defy 7 and Rotel RB-990BX amps; Convergent Audio Technology SL-1 Signature and Sonic Frontiers SFL-2 preamps; Acoustat Spectra 22, Snell B-Minor and B&W 802 series III speakers; Cardas Hexlink V and Rotel RHCC-10 interconnects; Ocos, Meitner, AudioQuest Midnight and Rotel RHSC-10 speaker cables; Bright Star Big Foot bases; Power Wedge II & Power Wedge V isolation transformers and conditioners; ASC SuperTraps; TDK and Radio Shack ferrite noise filters; Sims Navcom feet; AudioQuest UltraConnect cleaner; Harmonix/Combak feet; Nitty Gritty Model 2 record cleaner, DBX 14/10 analyzer.

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New England Audio Resource Model 10M Speaker

Mark Block

In his younger days, NEAR speaker designer Lewis Athanas performed and wrote comedy with Michael Fremer of *The Absolute Sound*. I hope the fact that both have made careers with their golden ears doesn't indicate a dark, Faustian bargain—a trade of one sense for another: humor for hearing. In Lewis' case, his speakers do not betray the slightest sense of humor; they are very serious indeed.

The model I've had the pleasure of listening to for the past year is called the 10M, a small 2-way box costing \$400. I bet you're wondering how I can use the word *pleasure* and "small 2-way box" in the same sentence. No problem: I *enjoyed* these speakers, even with more expensive ones nearby, ready to take their place at the first honk or breakup.

Remarkably for speakers at this price, the 10Ms feature not only a metal tweeter but also an anodized aluminum midrange/woofer driver, in this case, 5.25 inches in size. The first examples of metal midrange/woofers I encountered (maybe a decade ago?) were from the British firm Acoustic Energy; those speakers had clarity and dynamics up the kazoo, but were lean and mean to the point of annoyance. These NEARs retain the best features of the old AEs, but with a more pleasingly musical tonal balance.

TAKE MY SPEAKERS, PLEASE

New England Audio Resource is a relatively new name on the scene, but a rave review of the larger model 50M in *The Absolute Sound* put them on the map in a big way. (A more mixed no-

tice in Stereophile stirred up some controversy; perhaps The Audiophile Voice can break the tie—we're reviewing the latest version of the 50Me in our next issue.) NEAR grabbed up Bozak's machinery and tooling when that company went belly up several years ago (they've since been resuscitated), and like Bozak before them, introduced a line of weatherproof outdoor speakers. I've installed a pair at my parent's house in Key West; the hurricanes and heat and spilled margaritas haven't wasted them yet.

NEAR's more sophisticated indoor speakers use this waterproof technology as well—their CES demos feature a midrange driver playing in a fish tank. (Montauk fishermen could use it as shark bait: Attach it to some Monster Cable, throw it over the side, play the theme from *laws* and wait for a great white.) There are several reasons these speakers are impervious to water, the most important being that the voice coil is sealed and completely suspended in ferrofluid. Unless you're an audiophile mermaid, you may wonder if this water trick has any sonic consequences on dry land. The answer is Yes, because the water-proof NEAR construction brings the added benefit of eliminating the spider.

According to Lewis, the spider can act as a secondary diaphragm, resonating behind the speaker cone. The NEAR literature states that "conventional spiders aren't able to keep voice coils centered during demanding musical passages, so we replaced the spider with a specially-formulated ferrous fluid of just the right viscosity and magnetic density, ensuring a well-damped, perfectly-centered voice coil."

The ferrofluid itself is a special type used in medical research at MIT/Massachusetts General, with the active magnetite grown rather than ground to a specific size. The 5.25" aluminum driver crosses over to an inverted titanium dome tweeter at 2.4 kHz. The crossover is specified as "4th order, linear phase, positive polarity." I didn't realize a 4th order crossover could maintain phase linearity, but hey, maybe that's just me. The tweeter was changed in late 1993; the change had to do with a supplier difficulty, and was not intended to alter the sound quality.

The simple, boxy cabinet is quite heavy and dead, emitting only a "tick" when rapped smartly with the knuckles. These speakers clearly deserve good quality, sand-filled stands to bring out all their capabilities. The ubiquitous recessed, gold-plated binding posts bring up the rear, along with a port. The nuisance of getting one's fingers into the tight confines of these recessed connectors makes them the bane of a reviewer's existence. Banana plugs rather than spade lugs would be the recommended cable termination.

Because of the tweeter substitution (the new tweeter has NEAR imprinted on the plastic mounting), the company provided an updated pair so that I could verify that the latest production models sound like the speakers I spent the previous year with. Both pairs were on hand for one night, allowing me to compare the tonal balance and tweeter response. A quick listen with pink noise and a couple of CDs confirmed that nothing obvious had changed, but for thoroughness sake I listened to the new pair for about a month before finalizing this review. Although some parts of the review, particularly set-up notes, refer to the older pair of speakers, for simplicity's sake I've condensed my listening notes so the sonic evaluation is of the new pair only.

HOW DO YOU GET TO CARNEGIE HALL?

While playing test tones on the speakers to break them in, I heard some fairly horrendous distortion from one of the midrange/woofer drivers. A replacement was quickly dispatched. In a conversation with the Lewis Athanas some months later, I told him about my difficulty. He said the NEAR metal drivers had been fairly reliable, but that the bonding agent holding the cone to the surround had recently been improved.

The now functioning, fully broken-in speakers were placed on 24" sandfilled, dual post stands, which positioned the tweeter significantly below ear level. I soon realized that this setup was problematic, as a noticeable change in tonal balance could be effected by scrunching down in my seat to align my ears with the tweeter axis. When sitting up straight and looking down on the speakers, they were a little bright, with a ragged thinness in the upper midrange and a papery quality in the mid treble. With my ears at tweeter height, the sound was warmer, softer and smoother.

Without taller stands on hand, the casy solution in a case like this is to angle the speakers upward slightly. The threaded points on the top of the stands were too short to accomplish what I needed, so I used some of that blobby blue junk the Brits call Blu-tak. A couple of globs under the front edges of the speakers and I was in business. A single short tip-toe cone also happened to point the speakers up at just the right angle.

Using the standard Rule of Thirds, I put the speakers about six feet out from the wall and sat down to listen to some of the most spectacular imaging I've ever heard this side of a Wilson WATT. The speakers absolutely disappeared as sound sources, and the sound-

stage seemed to recede into infinity. I was so taken with the presentation that I grabbed the LEDR test disc, figuring that I finally had in my possession speakers to make the "Up and Over" chirps actually move up and over. But it wasn't to be. The NEARs didn't make the little crickets fly; oh well, maybe it's my room. (I would like to hear the little crickets really do their thing just once before I die.)

The Roger Waters QSound sonic spectacular (Columbia CK 53196) didn't generate as much width as I'd heard with some speakers, but the focus was well beyond the loudspeakers and well back into the corners. The two dogs were easy to discern at different distances off to the right in the beginning of the disc, and the images were quite solid. There may be some driver interference off axis in the crossover region, as some "vertical venetian blind" effect was noted on pink noise. On music, however, I never felt like I had to keep my head in a vise. In fact, the imaging was very good outside of the sweet spot.

OK, so they image good, like a minimonitor should. But what sets these speakers apart from the mini-monitor herd is one thing: dynamics. Make that Dynamics!, with a capital D. Subtle changes in musical pace, big changes in level, quick increases in energy they all come through these speakers clearly and effortlessly. Maybe effortlessly isn't the right word, because it sometimes implies a certain laziness. Listening to good music through the 10Ms is not a relaxed, laid back experience: You'll be sitting on the edge of your seat, tapping your feet, tensing up, punching the air with your fists. You want goosebumps? You got 'em.

The Twentieth Anniversary CD remastering of that audio benchmark *Dark Side of the Moon* (EMI 0777 7 81479 2 3) will never persuade LP enthusiasts to pack up the turntable, but on these

speakers it does sound fabulous. Cymbals have the right metallic texture (unusual for CD) without a hint of brightness or harshness. The bell chimes are clear, undistorted and placed precisely in the soundstage, with the left and right extremes of the stage well beyond the edges of the speakers.

My listening notes refer to the great punch and pace heard on recording after recording. Janis Joplin's *Pearl* (Columbia CK 53441): granular hiss from old master tape may be a little too audible, but because the dynamics are spectacular, once the music starts you forget all about it. Sade's *Love Deluxe* (Epic EK 53178): kick ass dynamics, great pace. Willie Nelson's *Across the Borderline* (Columbia CK 52752): excellent detail, great dynamics and good sense of pace give these speakers a real flair for the dramatic. Very high jump factor.

The metal drivers in a small cabinet release musical impulses quickly and then stop dead, with a minimum of energy storage, and few complex resonances. This lets the passion and intensity in the recording come through unaltered, unmuddled. Some more notes: Donald Fagen's *Kamakiriad* (Reprise 9 45230-2) sounds punchy and dynamic; good depth and transparency; beautiful high treble; metallic sheen on cymbals without any brightness; slight edge on sibilants.

It's ironic that audiophiles who want punch and kick in their music often end up buying big speakers with big woofers—a combination almost inevitably suffers from a resonant muddiness that obscures the very punch and pace they're looking for. By contrast, very little is obscured by the 10Ms, but then not much bass is produced, either (that's the trade off). So let's talk frequency response—and let's talk room placement, because set-up changes can

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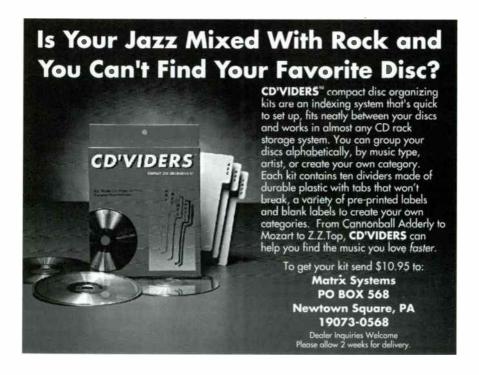
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When positioned out from the wall the NEARs are too lean for my taste. Although they pass the Frankie test without adding any boominess to The Voice (Frank Sinatra Sings for Only the Lonely, Capitol CDP 7 48471 2), the lack of warmth on female vocals and strings becomes annoying. I'd say the lower midrange, where chest and body tones reside, is shelved down a bit. Moving the speakers back to within two feet of the wall restores fullness in the midrange and boosts the upper bass. The speakers then become quite satisfying tonally, but the limitless depth of image gets squashed unmercifully. Hey, what do you expect for 400 clams?

It always amuses me to read a reviewer acknowledge the manufac-

turer's recommends of near-wall placement, but since the reviewer feels that the speakers image better out into the room, he ends up testing the speakers that way. Doesn't this make his criticisms invalid? What many audiophiles don't understand is that moving a sound source close to a wall not only boosts the bass, it boosts the lower midrange as well! If a designer voices the speaker for near-wall placement, its midrange will never sound right if moved out into the room. And if you're willing to give up a neutral midrange for better imaging, you're off the wall!

One placement trick that works for some speakers with rolled-off mid to low bass but an otherwise neutral midrange (not the case with the 10Ms) is to place the speakers way out into the room and move your listening chair back against the wall, where there is



often a low frequency standing wave. You won't get evenly extended lows, but you'll get the feeling of full bass while maintaining a deep soundstage.

Back to the NEARs. I found that putting the drivers about 18" from the wall produced a fairly neutral midrange and good low-end oomph (this distance can vary depending on the composition of the wall). The upper bass/lower midrange still had a mild dip, but the speakers were essentially flat to about 50 Hz in my room, and there was usable output below 40 Hz. Now, that's really big performance for such a small fry.

Not to nit-pick a budget piece of gear, my only real complaint is that the lower treble is not quite as sweet and clean as it could be: Sibilants are emphasized, but not to an annoying degree. The low overall coloration level, the leanness, and the presence region spittiness conspire to make these speakers both highly revealing and highly demanding of associated components. I found my reference Cardas Hexlink cables to be a good match, but slightly bright or hashy wires can put the system OTT. AudioQuest Emerald or Discovery cable would be a good bet for a moderate price. I normally hate overly revealing components, but the 10Ms create an exciting and dramatic musical presentation, one that never fails to draw me in.

I think these are great speakers around which to build a budget system. With an 88.5 dB efficiency and 5 ohm minimum impedance, the speakers should mate well with (used?) tube amps; warm and sweet electronics, whether tube or solid state, will help counteract the natural leanness in the speakers. A subwoofer could always be added to make the system full range. A pair of subwoofers with a fairly high crossover would even allow the 10Ms to be placed out into the room; there's lots

of potential here for a killer high-end system.

PRACTICE, PRACTICE, PRACTICE

Did I mention that the second pair of speakers (the ones with the new tweeter) had a defective midrange/woofer just like the first pair? Once again, there was a buzzing distortion throughout the bass decade on test tones, and the speaker sounded nasty and bright on pink noise. Furthermore, a binding post came loose when I tried to disconnect the speaker cable, and the front baffle had a crack in it. That all these problems happened to a reviewer is to be expected—it's all prophesied in the Book of Murphy's Law. NEAR is well aware that quality control must be a priority for them now.

Let me just add that I don't think the quality control problems should cause you to downgrade this speaker or cross it off your shopping list. NEAR has had some expansion pains, but by now they've probably gotten their QC act together. Even if they haven't, a defective mid-woofer is easy to hear just run an upper bass test tone at a moderate level and listen for buzzing. (Be careful though: lower bass tones at high levels will stress almost any speaker.) If it sounds bad, return it. It's not like you've got an IRS here; it's a little speaker you can bring back to the dealer in a shopping bag. The warranty, by the way, is for a full ten years on drivers and crossovers (two years on cabinets), and it's transferable to a second owner. That's quite a commitment.

These speakers are as dynamic as they come, with a quick, punchy low end and a crisp, extended treble. Imaging is holographic when the speakers are positioned out into the room, but tonal balance only falls into place with nearwall placement. Personally, I would have been happier if the speakers had

been voiced for neutrality without the low-end reinforcement of a wall, bass extension be damned. This would allow for the integration of a subwoofer with a standard 100 Hz crossover, while maintaining the 10M's spectacular imaging capabilities. But at \$400 the NEAR speakers are aiming at different market than WATTs and other high-end imaging champs that need additional woofers to satisfy the typical music lover. Most buyers at this price point will prefer to put the speakers back near a wall.

Lewis Athanas has come up with a serious contender here. By the way, he does have a sense of humor. I interviewed him at last year's Vegas CES. (Actually, interview makes me sound like a professional journalist. I am to journalism what Chevy Chase is to talk-show hosting. Let's just say we had a pleasant chat.) While discussing the highlights of Lewis' audio life, he gleefully mentioned that Dr. Amar Bose once threw him out of an engineering class. Obviously Lewis is on the side of the audiophile angels, no pact with the devil necessary.

10M loudspeakers, 399/pair. 11" high x 7.125" wide x 9.75" deep; weight 14 lbs. New England Audio Resource, 12 Foss Road, Lewiston, ME 04240. Phone 207-795-0609; Fax 207-795-0613.

Reference System: Theta DS Pro Generation II digital processor with Theta cable; Philips 960 CD player and Meitner transports; Well-Tempered Turntable and arm; Marigo Labs arm clamp and mat; Audio-Quest 7000 cartridge; Jadis Defy 7, Rotel RB990BX and Sonic Frontiers 160 amplifiers; Convergent Audio Technology SL-1 Signature and Sonic Frontiers SFL-1 preamps; Acoustat Spectra 22 and Snell B-Minor speakers; Cardas Hexlink V interconnects; Ocos, Meitner & AudioQuest Midnight speaker cables; Bright Star Big Foot bases; Power Wedge II & Power Wedge V isolation transformers/conditioners; ASC SuperTraps; TDK and Radio Shack ferrite noise filters; Sumiko Disc Mat; Sims Navcom feet; Harmonix/Combak tuning bands and feet; Nitty Gritty Model 2 record cleaner.

TWO SMALL SPEAKERS: The Dantax *Opus I* and the Paradigm *Mini MkII*

Earl Stevens

Two affordable speaker systems—pretty dull stuff, huh? [BUZZ] Wrong! Sure, we all like to play at the leading edges of the ever-expanding envelope, those sexy, full range and high-tech speaker systems. Whoops, did I omit megabucks in the mix? "Honey, do we need a new car or can I get some high-end speakers?" Well,

ain't that the truth. But I'm here to tell you that real-world components that can be recommended to non-audiophile friends are exciting, too.

Let us examine the perceived value of two entry level, affordable compact speakers. Both are two-way, bass reflex designs with rear firing ports. Both also share a MDF carcass and the ubiquitous vinyl (?) black ash finish, which has replaced the Danish walnut of my youth. Alphabetically now.

First up, the Dantax Opus I, measuring in at 13 3/8" high, 9" wide and 9 7/8" deep. The speaker complement comprises a 6" polypropylene bass driver and a 1" soft dome, ferro-fluid cooled tweeter. Crossing over at 3,000 Hz, the Opus I incorporates some interesting construction features. The front baffle has rounded edges to help reduce diffraction effects. It is also a fraction of an inch smaller than the box—a nice decorative touch—and is finished in a smooth, eggshell black. The individual drivers are flush-mounted on the baffle. A very attractive unit indeed, effectively belying its price point.

The grille assembly is another matter. The black cloth is stretched over a solid board with a pear shaped cutout to allow the sound out. But much of the output of the drivers is diffracted off the remaining solid portions. Plastic standoffs hold the assembly about 1/4" in front of the enclosure—a poor design not in keeping with the level of quality of the rest of the speaker. Remove the grille.

The rear panel is a different kettle of fish, with gold plated five-way binding posts of ample proportions. So what's the problem? The posts are angled downward, which requires the speaker cables to be curved over the top of the recessed assembly to enable insertion of spade lugs (or bare wire for that matter). If your chosen leads are of a heavy configuration, there might well be a stability problem. Even banana plugs won't avoid a potential difficulty unless they are an extremely tight fit, since gravity will tend to work against the connection. I would suggest large spade lugs and careful dressing of your speaker cables, using a tie-wrap around the cable and the speaker stand to alleviate the pull on the speaker.

The chunky proportions and design details, sans grille, result in what I feel is an attractive, high perceived-value unit which, when placed on a suitable stand, will blend into many environments.

Let us now contemplate the Canadian entry, the Paradigm Mini MkII. The enclosure is 14 5/8" (h), 8 3/16" (w), and 8 3/4" (d). Bass/midrange is promulgated by a 6 1/2" polypropylene driver crossing over at 2,000 Hz to a 1" treated textile dome tweeter with (what else but) ferro-fluid cooling.

These speakers are flush mounted on a medium-gray clad baffle, which is in turn set into a black-edged box. Protruding black mounting posts for the grille are permanently mounted on the baffle, and only the grille itself can be removed. This, I am sad to report, is a plain-jane box.

The grille, however, represents a decided improvement over the usual fare. Sheer black fabric is drawn over an MDF former with a rectangular cutout. Both the inner and outer edges of the frame are chamfered and, as the grille mounts flush, it should have less effect on the sound than we have come to expect. If you feel a need to protect the drive units, the sonic tradeoff proved to be small when the grille was left in place. Besides, the speakers look better with the grilles on. The overall visual impression is tall, lean and conventional.

Five-way (what is the fifth way?) recessed, gold plated binding posts, similar to the Dantax items, adorn the lower midpoint of the rear. [Let me count the ways: single banana, dual banana, spade, pin, bare wire.—Ed.] The difference? They are angled up. There should be no difficulty with most speaker cables or terminal hardware; however, if spade lugs are your choice, a larger size is called for.

Special notice needs to be taken of the owner's manual that came with the Paradigms. If I were grading the speakers, this alone would be worth a gold star! The document addresses such subjects as "The Listening Room: . . . It is important to note however, that construction, dimensions and furnishings all play a part in the quality of sound you will ultimately achieve." It goes on to outline the problems and effects of rooms and furnishings. "Speaker Location" is also a subject, suggesting room placement and pointing out the necessity of proper stands. This pamphlet is concise but very lucid. All speaker manufacturers with pretensions to quality should take note.

Audio Stream, the U.S. distributor of the Paradigm, also handles Premier speaker stands. Two pairs were provided: the M50 MkII, 23 1/4" (h) which are spiked steel units that can be lead shot filled (recommended in the Speaker Manual), and the W50, 20 3/4" (h), made from what appears to be a high density fiberboard. Both are finished in a semi-gloss black. Also on hand during the testing was a pair of steel Chicago Speaker Stands, 27" tall. The Premier steel stands sounded superior, period, and were a better match for both speaker systems.

I share my leisure with three distinct audio systems that just happen to represent three levels of performance. The Boss Wurlitzer features demodulation by a VPI HW-19 Mk IV with stand alone motor, Graham 1.5t Precision Tonearm and a nude (blush-blush) Lyra Clavis cartridge. Electronics are by Klyne Audio Arts (7PX2 phono stage and 6LX2 line stage) and by Crown International, the Macro Reference Audiophile Version amp. An entry level high-end rig graces my bed chamber, fronted by a Sony TC RX80ES CD player and a Proton D940 receiver. Last and least, in the family room resides a home theater set up that includes a Pioneer CLD 3030

video disk/CD player and a Pioneer VSX 9300 receiver.

As each system normally drives complex speakers with carefully matched cabling, I felt it would not be fair to shoehorn in the test speakers. So after listening to a variety of cables, I chose a pair of Sumiko OCOS Cables with the red connectors. These are certainly among the most neutral of the affordable high-end speaker cables available.

Both speakers were burned in for 100 hours in the Proton rig with repeat mode playing of Captain Beefheart *Doc at the Radar Station* (Virgin CDV2172) and on the third night the disk was changed to *Return to the Forbidden Planet* (Rhino R270480). As I indicated at the start of this review, the time spent with these units was anything but dull. So how do they sound?

Not so fast! Yes, they both made the cut, but the trade-offs are not subtle. That's why I used them in so many ways. First, these are not full range speakers. Each manufacturer claims response down into the 40 Hz range. I think usable bass in the upper 50s is the most that can be expected. Both systems experienced difficulties around their crossover point. But I want to make one thing perfectly clear: Both are priced below 10% of the cost of my reference speakers!

I started with the Dantax Opus I hooked into my equivalent of an expensive rack system—the audio portion of the home theater. Well, the Opus made the Roxy sing. The top end, which seems to be gently rolled off, created a good balance with slight lower midrange bloom, taming the worst of the CD-itus while still providing an open, airy presentation on *Liquid Silver* (dmp CD-449). Space was clearly delineated between the instruments, with reasonably layered depth. The soundstage held up well, even with high volume levels. Musical de-

cay was handled with aplomb. I appreciated the sound layers created by the cymbals. Arnold Bax String Quartet No. 1 (Chandos CHAN 8391), second selection, the "Harp Quartet," demonstrated good speed and attack on plucked strings.

The Dantax was then introduced to the upstairs music maker. Driven by the Proton, the true "New England" sound (anybody out there old enough to remember that?) made itself evident: an ever so slightly sweet, musical quality adding a pastel shading to all concerned. On both the Bax and Liquid Silver this tonal balance worked well. The frequency trade-off of this design must be considered a success. On the other hand Captain Beefheart didn't sound as beefhearted as he should. Even though the pace was good, it wasn't Rock 'n' Roll.

Finally I placed the Dantax in my reference system. On O Magnum Mysterium (Chesky CR83), the Opus I again demonstrated its good tonal balance, sense of pace, and open midrange. However, its lack of a large soundstage was most apparent. The "ceiling" was not high enough, nor was the room large enough. Do not misunderstand, there was not much wrong with the Dantax's presentation except that it was a scaled down rendering of this large scale choral work. Reproducing a small jazz group (For the First Time, Count Basie Trio, Pablo 2310712), the speaker acquitted itself nobly. The top hat floated over the piano and bass.

The Dantax Opus I with its "New England" sound balance, sense of air, good pace, stable sound stage and reasonable depth earns a firm recommendation.

And in this corner, the Paradigm Mini MkII. (This is going to get complicated so I will try to avoid direct comparisons until the "conclusions.") Plugged into the home theater set up, the non-

audiophile nature of the system sang out. It was altogether too easy to hear VHS tape hiss and the poor bass on recorded program material. CDs sounded like CDs. The combination of the Minis and the OCOS cable proved to be too neutral, allowing the transistor edge of the Roxy to glare through. Without beating a dead horse, this speaker is a poor match to this rack-ish rig.

In my entry level System, it became clear that the trade-offs necessary at this price point were quite successful. The word "neutral" keeps popping up in my notes. On the cut "IRS" (Liquid Silver) the piano had good weight and transients, the sound, being well paced, with reasonable space between instruments. It occupied an open, generous soundstage with believable depth. On band three, "One Page Waltz," the decay on the cymbals was natural and clean. The Mini has a true sense of speed; there was a definite edge to plucked strings on the Bax "Harp Quartet." The strings were realistic with a bittersweet sound. The Paradigm approaches the nature of "California" sound (is that another gotcha?): a punchy open balance, the upper midrange not being recessed, a slightly forward sound with tuneful bass (as far as it goes). Let me put it this way: Captain Beefheart kicked butt!

Then I schlepped the speakers downstairs to the old "Stromberg-Carlson" (the reference system). The Mini MkII again identified itself as a neutral performer, allowing the known characteristics of my system to show through. On *O Magnum Mysterium* the size of the venue was realistic, but the size of the choir was reduced. Count Basie fared well, lacking only weight for full satisfaction. Finally, the soundstage and imaging held up to reasonable volume levels.



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It is possible to pick both speaker systems apart, but that just would not be fair. In point of fact these speakers are quite good, each in its own way. At these prices you pick the trade offs you are willing to live with. In the end, however, I did make direct comparisons between the Dantax Opus I and the Paradigm Mini MkII. After much deliberation I chose two different recordings of similar orchestral offerings, Music of Leroy Anderson Vol. 1 (Mercury SR90009) and Fiddle Faddle (RCA LSC-2638). The tunes, "Sleigh Ride" appearing on both recordings and "Blue Tango," on the RCA only, became the vehicles of choice.

"Blue Tango" has heavy bass, complex strings and good dynamics. On the Dantax the pace was good, the "size" of the Boston Pops acceptable and string tones were sweet. You knew you were in Boston. What was most noticeably missing was intensity. The Paradigms provided a first rate sound-stage and a sense of speed; the attack was more realistic. Orchestral weight was shy but ambiance was first rate. Tonal balance on both units was good, just different.

"Sleigh Ride," not having the bass content of "Blue Tango" made for an interesting test. The differences in the two systems became smaller. The Mini played louder and faster with rosiny string tones. On the other hand the Omni had more weight and slightly better depth. I would guess that this speaker more properly fits a smaller room.

In summary, both products provide very good value. They both offer entry to the high-end, and in the proper rig can be quite rewarding. System matching, room matching and even listening matching, at this level of performance, are important tasks to be attended to. These are head and shoulders above any rack system speakers I have ever heard. If your taste runs to acoustic sounds, "lite" pop or new age the Dantax should be on your short list. If you groove to more raucous fare—traditional jazz, classic rock, fusion, you get the drift—be sure to audition the Paradigm. Heck, check them both out, it won't hurt.

My personal choice? Well, if I must. I could live with the Paradigm Mini MkII in my bedroom setup with no qualms. Even though each pair of speakers measure up, the Minis, in my opinion, are greater than the sum of their parts.

Dantax Opus I; \$399.99; Dantax North America, 420 Franklin Street, Farmingham, MA 01701; 508 879-1242.

Paradigm Mini MkII; \$299; Premier Speaker Stands W50 (\$49), M50 (\$99); AudioStream, Division of Bavan Corporation, 17-975 Fraser Drive, Burlington, Ontario L7L 4X8; 416 632-0180

Associated equipment: and the music goes 'round and 'round on a VPI HW-19 MkIV with their stand up Stand Alone Motor; demodulation via a nude Lyra Clavis with the support of a Graham Engineering 1.5t; little signals enlarged by a Klyne Audio Arts 7PX2 phono stage and 6LX2 line stage; power by Tice; and the music comes out here (or is it hear?) at the R. Sequerra FutureSonic MkII; continuity by Straight-Wire, MicroLink and Maestro. Supporting cast: Sound Support Systems equipment stand and various little and big pointy things too numerous to mention.

Signet SL 280 exB Speakers

Joel Shumer

Designing and building a clean, two-way speaker system has always been easier and much less expensive than putting a three-way system into production. But there is a price to be paid. Most two-way systems suffer from shallow bass, compressed dynamics and lightweight impact—no "visceral slam." What makes the Signet SL 280 exB extraordinary is that it incorporates the simplicity of a two-way design while retaining the virtues usually reserved for a three-way system.

Bass is fairly flat all the way down to 30 Hz, and can be cranked up to listening levels that all but the partially deaf would consider extremely loud. Frequency response is smooth and extended, with only minor colorations. Transients are fast except in the lowest bass, which has more weight than clarity. What is truly exceptional about these speakers is their cost/performance ratio. At less than \$1000 per pair, they represent a remarkable bargain.

PHYSICAL DESCRIPTION

The SL 280 exBs were introduced in the fall of 1993, but they are closely related to the SL 280 B/U, a stubby sibling that has been in production for several years. Both are 9.75" wide and 12.75" deep. Each uses the same SEAS drivers: an 8" polypropylene cone and a 1" aluminum soft dome tweeter. Identical 2500 Hz crossover networks divide the incoming signal, which in both cases produces an 88 dB sound pressure level from one watt at one meter. And both have a nominal impedance of 8 ohms.

The significant structural differences are cabinet height and venting. The new exB is 10" taller, and with its 35"

height is intended to be floor standing. Twin ports instead of the single vent used in the smaller speaker are placed 14" above the exB's bottom plate and are tuned to a slightly lower frequency. Although a pair of exBs carries a \$200 higher list price than the 25" tall SL 280 B/Us, they cost nearly the same when the price of the set of stands for the smaller speaker is included

SET UP AND ASSOCIATED EQUIPMENT

The SL 280 exB's manual suggests keeping a minimum distance of 6" between the rear firing ports and the wall behind. I found this to be too short, producing a bloated, muddy bass. After much experimentation in two rooms, one of 1600 cubic feet and the other of 2800 cubic feet, I discovered a distance of 27" from the rear wall produced optimal bass balance and coherence. In both rooms, the speakers were placed seven or eight feet apart, slightly toed-in, and three to four feet from the side walls. My listening position was about eight feet away, the speakers and my chair forming an equilateral triangle.

On the bottom of the exB is a .75" thick recessed plinth raising the speakers slightly above the floor. Removing the plinth with the help of a supplied Allen wrench reveals four holes for screw-in, adjustable spikes. (The plinth is only available on the walnut version; spikes are included with both versions.) Distasteful as the use of spikes may be—certainly the speakers look more attractive sitting on their plinths with the floors remaining unscathed their use is not optional if top performance is desired. The speakers just sound better with the spikes in use. Imaging is improved, coloration reduced,

bass extended, and a sense of pitch in the bass heightened. Each speaker has two sets of solid, five-way binding posts neatly recessed into the rear panel. [I hate recessed binding posts. I wish speaker makers would simply let the posts stick out—where wires, fingers and wrenches can get to them.—Mark] By removing gold-plated jumpers, the speakers can be easily biwired. Since biwiring sounds marginally superior, I did all of my critical listening in this mode with double runs of Cardas Quadlink or the modestly priced Straight Wire Duet.

Choosing an optimal amplifier for these speakers provided a few surprises. With Sonic Frontiers' 80 watt tube amplifier, the SFS-80, the exBs had a liquid midrange, silky strings and warm, burnished brass. The hybrid V-70, a 60 watt amplifier from Audio Research, was cooler and drier than the SFS-80 but provided improved imaging, fast, clean transients and extended highs. Unexpectedly, it was the lower cost solid state 120 watt Audio Research D-240 MKII that mated best with the exBs. This amplifier is a bit dull on the Quad Pros, but with the exBs it provided a top that was open and transparent, a smooth, almost tube-like midrange, and a bass both deeper and better controlled than either of the tube amps could offer.

Almost all the critical listening was done via CDs. The variable outputs of a McIntosh MCD 7007 were fed directly into the D-240 MKII amp, producing music of great immediacy and clarity. Not surprisingly, CDs sounded even better when played through a PS Audio Lambda transport, an Audio Research DAC-2 and a LS 2B preamp. But if the exBs were to be part of someone's initial system, it might make more sense to look for a CD player with a volume control, omit the preamp, and spend the saved money elsewhere, perhaps on a better amplifier.

LISTENING: SPEAKERS

Compared with my other speakers, Quad PRO 63s with dedicated Gradient subwoofers, Rogers LS3/5a's and KEF 105s, the SL 280 exBs have a slightly forward balance, pushing one's imagined sitting position several rows closer to the stage. They are at their best when played at a slightly elevated level, demanding one's attention. Perhaps this makes them a poor choice for bland, recessive wallpaper music (where the LS3/5a's might do better).

The exB's frequency response is smooth and well balanced. Highs lack the sweetness of the LS3/5a but are more open, extended, and are never grainy, coarse or strident. Of the comparison speakers only the Quads are more transparent.

The midrange is also smooth and open with just a hint of nasality and boxiness. It's a bit like cupping one's hands over the ears and then moving them four or five inches outward from the head. The effect on music is very slight, but it is there and perhaps more noticeable on massed strings than with voice or other instruments. The 105s have this slight coloration and, to somewhat lesser extent, so do the LS3/5a's. Only the Quads seem free of it.

Lower mids and upper bass are free of the chestiness that plagues many speakers. Frequency response sounds smooth and natural, never thin or bloated. There is no hint of the slightly boomy 100 Hz peak that the LS3/5a's and many two-way mini-monitors display.

Bass reproduction is the exBs most surprising and rewarding virtue. Despite the use of an 8" cone crossed over at 2500 Hz, the exBs play smoothly and with a sense of solidity down to 30 Hz! Using a Radio Shack sound level meter

and a Stereophile test CD, I measured an in-room response of +3/-4 dB at a reference level of 90 dB between 200 and 31.5 Hz. In fact, the 31.5 Hz test tone produced a +1 dB reading. Bass is robust and has more slam than the much more expensive Gradient subwoofers designed for the Quads, but the sense of pitch below 50 Hz is vague. Although I tried five different recordings of the first few minutes of Strauss' Also Sprach Zarathustra, the 32 Hz low C organ drone is more of a buzz than a specific note. But in the vast majority of cases the exB's bass is satisfying, making the LS3/5a's by comparison seem like anemic dwarves. The exBs also hold their own with the 12" acoustically sealed KEF 105 woofers. The 105s have a better sense of pitch, the exBs better extension and more slam.

Imaging is good, but not up to the level of either the LS3/5a's or the Quads. Sense of depth, center fill and, most importantly, steadiness of image are quite good and on par with both the LS3/5a's and the 105s.

Unlike many two-way systems, particularly inefficient mini-monitors such as the LS3/5a's, the dynamics of the exBs are wide and there is little sense of compression. Here there is no contest; the exBs are far superior. Even the larger three-way 105s are surpassed. Only the bi-amplified Quad/Gradients offer dynamics with finer, more subtle gradations as well as a wider dynamic range.

LISTENING: THE LIVE PERFORMANCE

Equipment comparison is what selecting a piece of audio gear is all about, but there is always the danger of concluding "more is better." Let's have deeper bass, higher highs, wider dynamics, faster transients, greater detail, etc. The results may be intriguing but surreal (not that surrealism doesn't

have its place). The live concert offers another standard of comparison: How well do the components in a system remind the listener of "the real thing?" [I disagree with this approach. Stereo components must first and foremost allow the recording to come through unaltered. The tough question is this: What does the recording really sound like? Hearing an orchestra in your local concert hall will certainly help "calibrate" your ears, but it will not help in figuring out how a particular recording should truly sound through perfectly accurate speakers.—Mark]

The Signet SL 280 exBs are able to mirror the sound of live music surprisingly well. Shortly after hearing the Guarnieri String Quartet play Ravel's Quartet in F at the Grace Rainey Rogers Hall in New York City, I played the Ysaye 1991 recording (London 430) 434-2) of the same work over the exBs. What immediately struck me was how right the tonal balances of this recording on the exBs seemed to be. No part of the aural spectrum seemed diminished, no part exaggerated. The pizzicato transients of the second movement also seemed just right—not slow but not unrealistically fast or sharply definedeither. Only a slightly "hollow woody" coloration detracted from the otherwise lifelike strings.

The Leibowitz recording of Beethoven's *Egmont Overture* (Chesky CD-6) has long been an evaluation staple. The exBs made it bass-heavy, or so I thought until I heard Kurt Masur conduct the work with his Leipzig Gewandhaus Orchestra. Beethoven has given the cellos and double basses a lot of weight in his scoring. Hearing the Chesky CD again that same evening over the exBs, I realized how remarkably effective these modest speakers could be in reproducing the massiveness of the string basses. Small as they are, the exBs are able to capture much of the weight of the full orchestra.

Opera when reproduced at home never sounds much like being at a performance. Even the live radio broadcasts of the Met seem constrained and closed in. Recently, after attending my umpteenth performance of La Boheme at the Met, I listened once more to the Von Karajan, Freni, Pavarotti recording (London 421 049-2) via the exBs. The performance came through unimpeded. The speakers didn't add anything to the sense of realism, but neither did they detract from the presentation nor add a signature of their own either. Voices had a convincing roundness, an absence of artificial brightness, and a freedom from chesty midrange bloat. The slightly woody colorations referred to earlier were not evident. It still did not come close to replicating a live performance, but the exBs showed that they could be part of a satisfactory, non fatiguing alternative.

LISTENING: THREE MORE CDs

The 1961 performance of the Bill Evans Trio of their title tune from *Waltz for Debby* (Riverside/Original Jazz Classics 210) via the exBs allowed Scott La Faro's bass to be reproduced with subtle nuances, rhythmic drive, and good bass extention. Evans' piano had a slightly woody coloration, but it was always musical, and Paul Malian's drum set had a clean, airy crispness. As reproduced through the exBs, this captivating recording is a pleasure and can easily become totally involving.

Two-way speakers at the price of these Signets aren't supposed to have much in the way of bass slam. Hearing "Hey, hey" from Eric Clapton's *Unplugged* (Reprise 9 45024) suggests otherwise. In my listening room, I could crank up the gain to the point where the rhythmic bass whacks that open the track produced a tingling sensation on the surface of the skin.

Perhaps the most exciting single listening experience I had with the exBs was playing the opening cut of Frederick Fennell's *Trittico* (Reference Recording 52 CD). Running the outputs from the ARC DAC 2 directly into the D-240 pushed both amp and speakers close to their limits. I measured short but sustained crescendos of 104+ dB at my listening position. But the sound! Pure, clean and open. The bass solid and deep. Brass raw and brassy. Woodwinds open, quick and airy. Bass drum powerful with a deep visceral wallop. This was good sound by any standard.

CONCLUSION

During the four months of critical listening to the Signet SL 280 exBs, I found them to be consistently more satisfying than either my Rogers LS3/5a's or the KEF 105s. They did not seriously challenge the Quad Pro-63/Gradient combination, but considering the enormous price differential this should be expected. Signet has produced a modestly priced speaker that plays loud, deep, smooth, and with little coloration. Stereophile has placed the SL 280 B/U, the exB's shorter twin, on its recommended list followed by a symbol indicating ". . . performance much better than might be expected from its price." The floor standing exBs should provide an equally high level of sound reproduction but with greater bass extension and control.

I know of no speakers in the price range of the exBs that have so successfully balanced the many parameters of good speaker design. During the four months they served as my primary speakers, I found them to be enjoyable and rewarding. I fully expect that the SL 280 exBs will become a benchmark component—a speaker by which other speakers under a \$1000 are judged. Enthusiastically recommended.



NBS1 (612) 332-2973

D/B-28° D/T-12.5° H-52°

Signet SL 280 exB floor standing two-way speaker system. 35" high, 9.75" wide, 12.75" deep, 45 pounds each. \$900 per pair in "black ash" vinyl finish, \$1300 with walnut veneer. Signet, 1920 Enterprise Parkway, Twinsburg, Ohio 44087. Phone 216-963-5959, fax 216-425-9339.

Associated Equipment: Linn LP 12/Lingo turntable with Linn Ekos arm; Koetsu

Rosewood Signature cartridge; McIntosh MCD 7007 CD player; PS Audio Lambda CD transport; Audio Research DAC 2 D/A converter; ARC SP 11 Mark II (as phono preamp); ARC LS-2B as line level preamp; Sonic Frontiers SFS-80, ARC V-70, and ARC D-240 Mark II amplifiers; Quad PRO-63/Gradient SW-63, KEF 105, and Rogers LS3/5a speakers; Audio Research, Cardas, M.I.T., Straight Wire interconnects and Speaker cable; Tice Power Block; Bob Young Line Filters; ASC Tube Traps; Goldmund Cones; VP1 Bricks, Target Equipment Stands.

MB Quart Two XL

Mark Block

This is a speaker with an interesting identity problem. It uses the highly regarded, German-made MB Quart drivers, while the cabinets, crossovers and final assembly are done righ'chere in the good ol' US of Arkansas. But this cross cultural, old-world-meets-new production line is not the cause of an even more fundamental multiple personality disorder: These speakers can't figure out if they're mass market or audiophile, high-end or low. They're full of contradictions, and all the more fascinating for it.

Some background. The Quart Two had been on the market about two years when it underwent a slight makeover and became the Two XL. The makeover expenses were passed along to the consumer to the tune of 50 bucks, bringing the price up to a still very reasonable \$549 per pair. Although the slim columns were stretched by four inches, the speakers are still short for floor standers at only 33 inches. Other changes include a modified crossover, and repositioned drivers—the tweeter and low frequency port are now cen-

tered on the baffle rather than offset (no more left/right pairs).

A few more techy bits to get out of the way: The tweeter is the same 1 inch titanium dome found on the \$3200 Quart 2000. It's a good un, but I don't like that they've moved it to a position equidistant from three cabinet edges (top, left and right). This is not normally a good idea. The woofer is a rather ordinary looking 6.5 inch fabric cone with a butyl rubber surround. The crossover is at a sensible 2.8 kHz, 12/18 dB per octave, and, typical of a ported design, sensitivity is fairly high at 88 dB. Nominal impedance is 4 ohms. Finish is available only in "Euro black" (read: textured vinyl) with "injection molded tops and bottoms" (read plastic).

ON THE BUS OR OFF?

Before I tell you that the Two XLs sound easily good enough to be labeled "audiophile," let's get into some of the contradictions. Most high-end manufacturers design products with some idea of how audiophiles will use them. MB Quart, however, is not really a high-end manufacturer, and they try

to have it both ways with some of their speakers. The promo literature mentions the use of "Esoteric Audio heavy gauge speaker wire and film capacitors." Ah, definite audiophile pretensions here. The brochure goes on: "Quart's 'no shortcuts to quality' approach dictated using film as opposed to the cheaper—and sonically degrading—electrolytic capacitors typically found in comparably priced speakers. All internal components are then meticulously assembled in specially braced, MDF non-resonant cabinets featuring gold plated binding posts to insure maximum conductivity. For enhanced, well-defined bass and imaging, each Quart model has its own detachable spiked feet."

Yes, it sounds audiophile to me, and here's the icing on the cake: The gold plated binding posts are spaced too wide apart to accept dual banana plugs, making hook-up just a little more difficult. More difficult? That's the acid test. Definitely audiophile!

Not so fast. The floor-standing cabinets weigh less than 25 pounds, which means the walls are not as heavy or as well-braced as the manufacturer would have us believe. To be fair, the cabinets are fine for the money, but they do produce some unwanted resonances. And those spiked feet? Actually they're little more than plastic, cone-shaped knobs—one at each corner, pressure fit, no adjustments. They're not long or sharp enough to go through carpet, and the lack of adjustment means the speakers wobble on a wood floor. Although portrayed in the promo book as an audiophile enhancement, the "spikes" are basically a waste of good plastic.

Another clue that audiophile concerns were not part of the design: The binding posts are mounted underneath the cabinets rather than on the back, and the passageway for cables is fairly narrow. A plastic tab designed to hold

speaker wire is molded into the base, its size just right for gripping 16 gauge lamp cord. If one removes the plastic feet for better footing on a wood floor, lamp cord is about the only thing that'll fit underneath—forget about a nice run of Esoteric cable. A call to Quart elicited concern but no solution; I got the usual, "You're the first customer to complain about that." Meanwhile, the top-heavy speakers were sadly wobbling around on my padded carpet.

I was determined to give these speakers a fair shot, so I used three tall Tip-Toes under each speaker, and a couple of VPI bricks on top. After a couple of days of "sinking in," the speakers seemed stable enough to evaluate. However, a stiff breeze (or a playful cat/puppy/kid) definitely would have sent them tumbling. I placed each speaker six feet out from my front wall (following the rule of Thirds), hooked them up to a Rotel amplifier using some excellent Rotel "six nines" copper cable, and put them through their paces.

LIFE IS ...

To be perfectly honest, I prepared myself for the worst. The manufacturer had supplied me with a review from the *Chicago Tribune*, and it hit a nerve: "The Quart Two emphasizes the faults of poorly recorded CDs. If the disc contains excess treble these speakers will drill your ears with it." God, just what I need: months of torture while these things ruthlessly trash my favorite CDs with ear-drilling, metal dome nastiness. "Life's too short," I muttered as I put the first CD on for a spin. I cringed. The sound was . . .

Wonderful! Warm, smooth, clean. No drills. No boxy colorations. No problems. "Wow," came out of my mouth in a sigh of relief. Life was good. After a relaxing few minutes, I got down to audiophile business with my favorite

sonic extravaganza, Roger Waters, Amused to Death (Columbia CK 53196), Super Bit Mapped version. Soundstage width was excellent, with the opening "Bill Hubbard" monologue way offstage to the left, and as well-focused, full and natural—no phasiness—as I've ever heard it. The piano on the right was quite good also, sounding full and sonorous in spite of the QSound processing.

Both Roger Waters' and P. P. Arnold's vocals on "Perfect Sense" were fairly neutral, with no added chestiness down low or glassiness up top. On the downside, the burst of static starting the cut wasn't particularly quick or startling, which indicated to me that the Quarts may lack speed, resolution and dynamics. High frequency resolution, however, was far better than I expected. Next time you play this recording listen for the noise that accompanies the dog bark sound effects off-stage to the right at the beginning of the disc. I don't know if it's tape noise or recorded ambience, but many speakers simply don't reproduce it at all. The Two XLs did, clearly.

Upper treble resolution accompanied by lower treble smoothness was a defining characteristic of the Two XLs on recording after recording. This quite surprised me, because the cabinets are not tall enough to place the tweeter at ear height for a seated listener. A smooth off-axis response is therefore crucial to the performance of this speaker. Moving my head up and down while playing pink noise failed to reveal any obvious anomalies in the vertical response. (If your kids catch you at this, don't be embarrassed. Just say, "Daddy's playing a game. What animal do I look like now?")

The SBM re-mix of Dave Brubeck's Time Out (Columbia CK 52860) provides a good example of the Two XL's treble smoothness. I've heard this remastered recording sound a little overthe-top on some systems, but the Quarts brought out good detail and realistic metallic bite on cymbals without losing the Brubeck Quartet's timeless musicality. Remembering the *Chicago Tribune* writer's comments, I shudder to think of the front end that could turn these speakers into ear drillers.

The bass range is also remarkably smooth and neutral. Using the Stereophile Test CD2, the speakers measured plus or minus 2 dB from 50 Hz up to 315 Hz at my listening chair! I've never had speakers take so well to my room before. Below 50 Hz the response shelves down severely (some of this dip may be attributable to standing waves), but there is still some output below 30 Hz—unusual for a ported speaker of this size. The neutrality of the bass helps certain CDs with a lot of midbass energy—the new Emmylou Harris, Cowgirl's Prayer (Asylum 9 61541-2), for example—sound full rather than fat. Although Emmylou's voice through the Quarts was somewhat lacking in detail and articulation, the overall sound was nicely balanced and easy to listen to.

Not all was perfection, however. The imaging was deep in the middle of the soundstage but somewhat shallow at the sides, and it was difficult to hear into the recesses of the stage, transparency not being a strong suit here. For example, with some speakers it's easy to hear that the soundstage on Brubeck's "Take Five" has (like the speakers themselves) a very split personality: Joe Morello's drum track has been panned left, and the reverb stays resolutely on that side, spreading toward the middle but refusing to cross the center line into the rest of the soundfield. It makes the recording sound strange and dated in spite of the otherwise awesome sonics. The Quarts, however, tend to mush it together a bit-which in this case makes the mix sound better than it is. An apparent edit at 1:50 into the recording is

audible through the Quarts, but less obvious than with other speakers I have around, again suggesting a lack of midrange speed and coherence.

I've puzzled over the fact that high frequency detail seemed to be first class, yet the speakers—over months of listening to dozens of CDs with several different amps, preamps and processors—gave me the impression of being too smooth, dark and laid back. I suspect a broad dip covering much of the midrange, gentle enough to be almost innocuous, but deep enough to remove some of the music's life and energy. Could be a driver integration problem at the crossover, but that's not my area of expertise. Further, the lightweight cabinets surely must be contributing some unwanted resonances that muddle and smear fine detail. Bass lines were quite easy to follow—things weren't at all muddy or one-note-but rhythm and pace were only adequate, despite the truly remarkable low frequency linearity.

UPPERS OR DOWNERS?

So, are these speakers mass market boom-and-tizzers or audiophile music makers? The lack of a provision for spiking, the so-so cabinets and the deficiency in midrange articulation may argue for the former, but I would counter that the Two XL's fine tonal balance, superb treble and truly remarkable bass smoothness place it firmly in the audiophile camp. This kind of product—high-end sound with mass market pricing—is going to be an important category if "Specialty Audio" (as the CES refers to high-end products) is to remain commercially viable. I don't think MB Quart pulls it off with complete success—film capacitors and Esoteric Audio wiring combined with plastic feet and a short, light cabinet are mixed signals if I've ever heard 'em—but it's a good effort.

Nobody asked me, but I think the Quart people ought to move the tweeter back to where it was originally. Some other improvements that might be incorporated in future versions (call it the Two XL II) can be accomplished fairly easily right now (and cheaply) by the home tweaker stuff like gluing felt to the baffle near the tweeter to control diffraction and compensate for the symmetrical placement. One could also attach some real, threaded spikes to the bottoms, or at the very least glue on three carpetpiercing Tip Toes. And while you're at it, add some damping material and weight to the lower portion of the cabinets. As icing on the cake, throw a few Marigo dots on the woofer to see if the midrange becomes a little more articulate.

Hey, the speakers are so reasonably priced, I might just buy them and try out a few tweaks myself. Where else am I going to get a speaker with near perfect mid and upper bass response coupled with a sumptuously smooth treble? I'll let you know if the mods work.

MB Quart Two XL floor-standing speaker, \$549/pair. 8.3" W x 32.9" H x 9.5" D. MB Quart Electronics U.S.A., 25 Walpole Park South, Walpole, MA 02081; phone 508-668-8973, fax 508-668-8979.

Reference System: Theta DS Pro Generation II digital processor with Theta cable; Museatex transport; Well-Tempered Turntable and arm, with Marigo Labs arm clamp and mat and AudioQuest 7000 cartridge; Jadis Defy 7 and Rotel RB-990BX amps; Convergent Audio Technology SL-1 Signature preamp; Acoustat Spectra 22 and Snell B-Minor speakers; Cardas Hexlink V and Rotel RHCC-10 interconnects; Ocos, Meitner AudioQuest Midnight and Rotel RHSC-10 speaker cables; Bright Star Big Foot bases; Power Wedge II & Power

Wedge V isolation transformers and conditioners; ASC SuperTraps; TDK and Radio Shack ferrite noise filters; Sims Navcom feet; AudioQuest UltraConnect cleaner; Harmonix/Combak feet; Nitty Gritty Model 2 record cleaner, DBX 14/10 analyzer.

The Radio Shack Optimus CD-3400 Portable CD Player

Mark Block

If you've kept your ear to the audio grapevine, you probably know that this player has become a cult item. I've heard stories of local Radio Shack outlets being cleaned out of dozens players at a time by crazed hi-fi buffs in search of the audio equivalent of a winning lottery ticket or a Hillary Clinton commodities investment—a dirt cheap component that wipes out the ten and fifteen grand esoteric big boys. Word has it that the Optimus 3400, which I bought on sale for \$129, sounds as good as or better than a Levinson.

Of course, for this to be true, we must accept that a flimsy transport in a light, plastic case feeding its jittery digital signal to a cheap 1-bit DAC followed by the crummiest possible analog output circuit and a skinny Radio Shack patch cord can sound as good as the best processors Levinson, Theta and Sonic Frontiers have to offer. And if that's the case, then everything we know, everything we believe in, EVERY-THING WE HOLD NEAR AND DEAR, IS A LIE!!! Truly, it's a sign the apocalypse is upon us.

The story goes that a certain famous phono cartridge and headphone designer, initials JG, picked up one of these babies as a lark, then discovered to his surprise that the player sounded absolutely wonderful. He turned other industry insiders onto his find, and

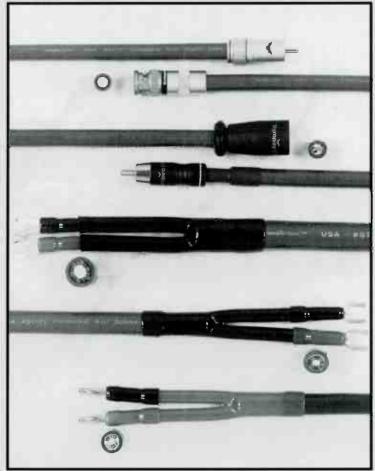
they all concurred with JG: This little portable was the greatest discovery since gold in California, oil in Alaska and pork belly futures in Arkansas. Richard Sequerra no less is now making a companion power supply/isolation base—sort of like a docking station for a Macintosh Duo —which supposedly erases any small differences between the Optimus 3400 and the state-of-the-art.

Is it possible? I had to know the truth, and I was willing to pay \$129 for it. Hey, it was a can't lose wager: If the player turned out to be legit, then I'd just saved myself thousands; good-bye Sonic Frontiers SFD-2, hello nirvana. If it was all a hoax, at least I had a portable I could throw in my bag and take with me on the commute to work. Like the Radio Shack clock of several years ago, when we all discovered it didn't work at least we had a nice alarm clock. I've had the thing several weeks now, and you know what? I lost a can't lose bet. But I'm getting ahead of myself.

SHACK ATTACK

When I got the player home I noted that it does not come with a power supply or rechargeable batteries. A generic power supply is, of course, available from Radio Shack, but the audiophile grapevine gossips report that the player sounds best when running off batteries—just like the Rowland Model





...audible results with the finest in connecting components!

SOUND CONNECTIONS INTERNATIONAL, INC. 203 Flagship Dr. — Lutz, FL USA 33549 PH: 813-948-2707 Fax: 813-948-2907 9. If you're serious about using the Optimus in a high-end system, it makes sense to invest in the Sequerra Power Station or something similar, otherwise you could run through hundreds of dollars a year in batteries. Then again, maybe that's just a normal part of being an audiophile—after all, we don't seem to mind shelling out hundreds of dollars every year on replacements for worn out tubes and phono cartridges.

A thin patch cord for connecting the line out mini jack on the player with the RCA inputs on your preamp is supplied, and I dutifully cleaned it with AudioQuest contact cleaner before proceeding with the listening. The player starts up with a whir and a whine, and makes some very unusual noises while running, so I decided to put it on top of three Navcom pucks to deaden it a little. All comparison tests were conducted with levels matched to within 1 dB. By the way, the volume on my preamp had to be cranked up considerably with the Optimus player, its output being extremely low at .7 V. Forget about a passive line stage here, or even a tube preamp that gets noisy if you go above 12 o'clock.

I always felt that a potential advantage to using one of these portables in a home hi-fi system was the ability to bypass your preamp and run the signal straight into a power amp using the player's headphone output, which has a built-in volume control. I tried it with the Optimus, but found that the level, even when cranked all the way up, was not quite loud enough to satisfy me. The player's volume control is considerably less clean than my Sonic Frontiers SFL-2 preamp anyway.

Ergonomics were poor. What do you want for \$129, ergonomics too? The display screen is almost impossible to read in any light, and the tiny buttons are hard to identify. Track access time is very slow, but not quite as bad as a

laser disc transport. A little button on the front called "Program EQ" should be ignored by right-thinking audiophiles; for headphone users it might come in handy. Oh, yes, the left and right channels were backwards through the supplied patch cord; somebody at the factory must've had color dyslexia.

Even more problematic is the fact that this player, like many other portables, doesn't track very well. I don't know if the problem is due to poor isolation or insufficient error correction, but many of my favorite CDs give the CD-3400 fits, producing small glitches and longer duration muting. In its intended role of portable, the Optimus player is a torture device. With the player in my shoulder bag, I find myself trying to reduce the glitching by doing that heal-toe/floating walk expertly practiced by SteadiCam operators and third world peasants with baskets on their heads.

THE TANDY TEASER

So I lost half the bet: It's not a great machine to take on my commute to work. What about the other half: Does it deliver the sonic gold? Well, yes, it does sound quite good. But I know Mark Levinson (the DAC, not the dude), I've heard Mark Levinson, and the Optimus is no Mark Levinson. Actually, I did my comparisons with a Sonic Frontiers SFD-2, but the fact remains that this player is not up there with the best. The interesting (or maybe embarrassing) thing is that the sound quality is not that far removed.

The SFD-2 has clearly deeper bass, clearly more upper frequency air, clearly more transparency, and clearly less grunge in the midrange. Listening to James Laid (Fontana/Mercury 314 514 943-2) through the Optimus, the drum kit sounded a little opaque, the vocals weren't pristine, and the thick atmosphere laid in by producer Brian

Eno was dissipated. Compared to my four year old Theta Gen. II, however, the Radio Shack cheapie does much better, with bass and dynamics being the chief drawbacks.

Willie DeVille's *Live* album from last year (Fnac Music 592254) opens with the most kick ass rock performance I've heard in years, but that first cut, "Lilly's Daddy's Cadillac," suffers a bit through the Optimus. Bass isn't as full as it should be, pace and dynamics are suppressed, and the sweaty, smoky air of the live venue is dried up and darkened.

For those of you who can't trust a reviewer who doesn't use classical music in his evaluations, I'll relent and use some; I'm getting mellow in my old age. One of my favorites is the *Rossini Overtures* by the Orpheus Chamber Orchestra (DG 415 363-2). The Optimus player dried up the hall sound of this beautiful recording, giving it a weak, midrangey quality. The warmth and airiness just didn't come through fully; the soundstage lacked its connective tissue. Inner dynamics? Sorry. The music lost some tension and excitement.

The interesting thing about all the comparisons is that my initial reaction to the Optimus was, in each case, tremendously positive. Every night, after a few minutes of listening to the SFD-2, I'd switch to the Radio Shack portable and think to myself, "Jeez, this thing sounds pretty good." It took a few minutes to pick up on the faults, and the final switch back to the Sonic Frontiers processor always brought with it a satisfying gain in sound quality. In other words, it was much easier to hear the sound get better with the SFD-2 than get worse with the CD-3400. Keep that in mind whenever doing comparisons (level-matched, of course).

In addition, the ability to hear the Optimus player's flaws grew stronger with repeated comparisons. You know

how sometimes you make a change in your system and hear a clear improvement, then a few minutes (or days, or weeks) later you undo the change and realize the improvement was probably more wishful thinking than anything else? That's not the case here. The more comparisons I did, the worse the Optimus sounded. That does not bode well for long-term contentment.

To its credit, the Optimus player didn't have that laid back, soft, rolled-off sound I've come to associate with 1-bit DACs, and it didn't add any ugly grain to the music. The sonics were actually impressive given that the signal was coming through a thin little patch cord. The patch cord alone could account for many of my criticisms!

There's one important question I haven't answered yet: Does the Optimus CD-3400 sound better than any other run-of-the-mill portable? To find out, I borrowed a similarly priced, batterypowered Panasonic SL-S150. The Panasonic was lighter in weight and had a few more bells and whistles (particularly the "hold" switch, which locks out accidental button pushing) that made it preferable for casual listening on my commute to work. It tracked far better, too. Using the same CD two days in a row on my commute, the Panasonic muted briefly three or four times when I bounced up or down flights of stairs; the Optimus glitched and muted frequently, and couldn't play one cut at all until the train stopped. The Panasonic's clamping mechanism uses three spring-loaded ball bearings to help grasp the CD, whereas the Optimus uses a cheap "jewel case" gripper.

Sonically, however, I found that the Panasonic coarsened textures a bit, dried up the soundstage a little more, and in general sounded too laid back and recessed for my taste. The Optimus did sound *slightly* better through my high-end rig. But as a portable unit

through headphones, the Panasonic worked; the Optimus made me want to throw the mother off the train.

Could I live with the little Radio Shack wonder? I don't think so. Am I willing to pay a multi thousand dollar premium for slightly better sound? Of course! I'm an audiophile. But I recognize that the law of diminishing returns catches up with you much faster in the digital world. We know that \$300 speaker won't sound remotely like a three thousand dollar one; the gap between them is as wide as a canyon. When you talk amplifiers the gap narrows a little; a \$600 amp or preamp could be within shouting distance of the best. When you talk digital processors, the gap narrows dramatically; the little cheapie can almost reach out and touch the other side.

In the meantime, we have audio nuts running around claiming that Radio Shack is making *another* miracle product, like the now-infamous digital clock. (Hey, maybe your system will sound better by just having the Optimus 3400 in the room. Yeah, but pointed in which direction?) And on the other side of the fence, the objectivists are gleefully pointing fingers and shouting, "See, the high-end Emperor has no clothes!" Then there are the analog die-hards, who surely must be thinking that digital state-of-the-art must be pretty bad if a Radio Shack player can compete with the best. They're all wrong.

What does this prove? 1) That many audiophiles really *are* the gullible fools the objectivists make us out to be. 2) That sonic differences among digital playback components are small enough that placebo effects swamp actual audible differences; if you believe it's good, it will sound good. 3) That those who legitimately like the sound of this player evidently prefer a euphonic loss of information to accurate reproduction. 4) That prices have

gotten out of hand, and so we desperately want a cheap component to show up the pricey "fantasy world" stuff. We can dream, can't we? (I think I hear Rocky calling Adrienne in the background.)

I was going to end this piece with a cliché about getting what you pay for, but the fact is you do get more with this player than I thought possible sonically, at least. To most people, the audible differences between the Optimus and a Levinson aren't worth an extra hundred bucks, much less an extra ten thousand. But we're not most people. To most people, the differences between a Glen Ellen cabernet and a Beaulieu Private Reserve aren't worth 50 cents much less 50 dollars. But wine lovers aren't most people either. I could go on, but you get the point. The Optimus CD-3400 gives you quite respectable sound for the money, but if you prize perfection in audio reproduction, this player is not going to satisfy.

FLASH

As we were going to press I stuck a finger in the air and got wind of a shift in opinion on the CD-3400. The analogue output stage is finally being recognized as a limiting factor, so audiophiles are now singing the praises of this player as a transport (the digital output jack can connect it to a better quality processor). Given my experience with its poor tracking and difficult ergonomics, I think you'd have to be *insane* to use this thing as a transport—which makes it a perfect highend component, most audiophiles being veritable Freudian showcases.

The Optimus CD-3400 portable CD player, \$179 (on sale in most stores for \$129). Radio Shack, Division of Tandy Corporation, Fort Worth, TX 76102.

Reference System: Sonic Frontiers SFD-2 processor; Museatex transport; Rotel RB-990BX amp; Sonic Frontiers SFL-2 preamp; Snell B-minor speakers; Rotel RHCC-10 interconnects; Rotel RHSC-10 speaker cables; Bright Star Big Foot bases;

Power Wedge II & Power Wedge V isolation transformers and conditioners; ASC SuperTraps; TDK and Radio Shack ferrite noise filters; Sims Navcom feet; Audio-Quest UltraConnect cleaner; DBX 14/10 analyzer.

SECOND OPINION

Shannon Dickson

I recently bought a CD-3400, and my reactions were similar to Mark's. It sounded striking at first with its immediate, up-front (but somewhat shallow) soundstage, and its "sense" of air around cymbals. With standard alkaline batteries it sounds better than with an AC adapter, yet the bass is still fairly anemic, loose and ill-defined, and the subtle textural detail, sound-stage dimensionality and frequency extension found in, say, the Theta Gen. V or the Sonic Frontiers SFD-2 just isn't there.

I think so many people love this little player because it very subtly slurs transients, giving them a rather liquid sound that can be less grating than typical cheap players. The other thing that might attract people is the way it creates (as opposed to "recreates") a facsimile of air, particularly around cymbals. That penchant—combined with an immediate midrange that doesn't sound too aggressive—gives the CD-3400 its appeal. Nevertheless, careful listening to some of the better digital designs quickly highlights this player's shortcomings, particularly when it is powered by the AC adapter or standard alkaline batteries.

One point in Mark's article to which I take exception is the reference to a "jittery" output of this 1 bit DAC. This unit's jitter may indeed be quite low, because when used as an integral

player there is no interface at all—no SPDIF, a major source of jitter. Also, the CD-ROM based transport mechanism uses separate servos for the laser and drive unit, which combined with a very simple and compact internal circuit path, could make for a low jitter device, and may explain why it sounds as good as it does in spite of its weaknesses.

I tried the CD-3400 with a custom 6 volt lead-acid battery pack rigged up by a local audiophile, and it sounded noticeably better, particularly when using a mini-plug to RCA adapter for the line output into a pair of decent interconnects. With Dick Sequerra's new \$300 DC "Power Station," made expressly for this player and other portables, I'm sure that the 3400 sounds more consistent. Using even fresh alkaline batteries I noticed how much the sound quality deteriorates after only a short time of playing. These batteries are not particularly stable in their voltage and current delivery, and I suspect that the decrease in sound quality is partly due to an erratic power supply.

Inherently, alkaline batteries have fairly high internal resistance (IR), which begin to rise even further the minute you put them in service. As a result, the voltage drops soon after new batteries go to work, and a diminishing supply of current is available to run the CD player. The optional Ni-Cad rechargeable batteries are a better choice. Ni-Cads have low IR yet have

their own drawbacks. They tend to develop a memory, and like to be fully discharged frequently before recharging. Also, the Ni-Cads supply only 1.2 V rather than the 1.5 V found in AA alkaline batteries, so the player will only see around 5 volts rather than the 6 volts at the outset. However, their low DC resistance should make for a better performance. Be careful to flip the charger switch inside the battery compartment of the player if you use Ni-Cads.

The Sequerra Power Station uses superior 6.2 volt lead-acid batteries (similar to the Rowland DC supplies), which have very low internal resistance resulting in constant voltage and current characteristics until the batteries are near the end of their charge. Therefore, I would expect that the Sequerra option, with its built-in charger and voltage indicator as well as better audio and digital connectors, will not only stabilize the power supply but deliver more current—and therefore elevate the performance of the 3400 significantly. However, I still think it will be hard pressed to compete with the Thetas, SFs or Levinsons of the world, as some have implied. I'll happily eat my hat if it comes close to the overall performance of the top tier digital components.

However that evaluation turns out, the \$480 pairing of the Radio Shack CD-

3400 with the Sequerra power supply seems destined to be this season's rave of the budget jungle. That the big boys even require the defensive perspective offered above to balance the rabid enthusiasm generated by a \$179 CD player indicates that entry level digital playback is certainly improving. The CD-3400 may be one of the first portables to deliver enjoyable sound on the go. However, with its standard power supply and output connectors it just isn't the giant killer the hype would lead you to believe. On the other hand, if the major digital designers take a hard look as a result of the splash made by the CD-3400 and respond accordingly, that could be its most significant contribution to the high-end.

The Sequerra Power Station is available from R. Sequerra Assoc. Ltd., 792 Pacific Street, Stamford, CT, 06902. Phone (203) 325-1791, or fax (203) 325-0263.

Associated components: I used, by and large, the same components listed at the end of the Avalon Radian review. Two notable exceptions: Joe Grado's revealing HP-1 headphones and headphone amp, and the gorgeous new 150 watt per channel Jeff Rowland Design Group Model 6 monoblock amplifiers.

Rotel *RB-990BX* Power Amplifier

Mark Block

This unassuming black box, average of size and moderate of price, houses under its thin sheet metal a hulking, snarling brute: 200 watts of immutable power into 8 ohms, with an instantaneous output of over a thousand watts into 1 ohm accompanied by a peak current of over 200 amps! It seems Rotel has bagged a wild beast and served it up to audiophiles as an almost free lunch. At an asking price of \$999.90, there's got to be a catch. Right? Let's find out.

My time with the 990 began inauspiciously. Two samples were apparently dead out of the box, and I was ready to give up when Rotel's Mike Bartlett offered to come over with a freshly QC'ed, absolutely-positively working amp. We fired it up. . . . Nothing. A look under the hood revealed 4 blown fuses. In went new fuses, which again failed immediately. The amp uttered not a peep. At that point Mike suggested we try a different speaker cable (I was using a triple run of Ocos). Out went the Ocos, in went my old Meitner wire, along with yet another set of fuses. Success! Mike later sent along a run of Rotel's excellent "six nines" copper cable, which I used for the remainder of the review.

I finally read a good technical explanation for the fuse blowing (just as I was finishing up this review) in Edward J. Foster's *Test Bench* lab report: "The RB-990BX might prove skittish driving highly reactive loudspeakers (perhaps certain electrostatics) or high capacitance speaker cable. It's not that the amplifier balks at driving these loads: quite the opposite. When asked to supply very large, reactive currents, it

tries valiantly—to the point where it may blow its internal fuses or worse." The thing that strikes me as odd with this explanation is that my amps blew their fuses seemingly immediately; they wouldn't even play music at a low level. I own Acoustat Spectra 22 electrostatic speakers, and the Rotel drove them beautifully. It just wouldn't drive the Ocos cable. I've been tempted to put larger value fuses in there and try out the Ocos again, but I didn't—for reasons I'll get to later.

REVIEWER BLOCK

Now, with my fascinating "blown fuses" story out of the way, I have to start actually "reviewing" this amp, and it's hard. Amp reviews are always hard. I can't talk about ergonomics, because there's nothing much to talk about: It's just a typical solid-state power amp. Ya got a power switch on the front, a pair of RCA single-ended inputs at the back, and a pair of fiveway binding posts to hook the speakers up with. Nuttin' to it. Input impedance is 33,600 ohms, and sensitivity is about 1 V for rated output higher than most American amps, but typical of amps made Across the Pond. It would be nice if the impedance were higher, but it'll probably work OK with a passive preamp if you want to keep sound quality high and costs low.

So let's talk sound quality. I've listened to this amp steadily for over six months now, and I still have very little to say about its sound. Oh, god, I'm blocked! I can't find anything wrong with it! I'm a bad audiophile! I'm a lousy reviewer!

Wait a minute (sound of palm slapping forehead). Maybe I'm not a bad audiophile. (No cracks about the reviewer part.) Maybe this is a damned terrific amplifier. Maybe it's a sensational amp for the money. My "real" amp is a Jadis Defy 7 worth over six grand, and I've lived with this Rotel thing for quite a while now without once feeling that I was missing something. Now that's something to write about!

I FEEL BETTER NOW

After warming up the Defy 7, which had been refurbished with a new, up-to-date circuit board and Sovtek 6550 tubes several weeks prior to its Rotelinduced six month hibernation, I spent a few days swapping the two amps in and out of the system, and y'know what? I really wasn't missing much with the Rotel. If I were doing a blind test I'd swear the 990 was a Class-A amp in the plus three grand bracket.

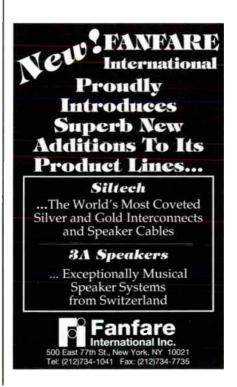
OK, it's not perfect, and since it's easier to describe what an amp does wrong than what it does right, I'll start there. The thing I miss most with the 990 is depth and dimensionality extending into the rear corners of the soundstage. The Rotel is afflicted (if that's not too strong a word) with the infamous "Arcing Soundstage" disorder. Instruments at the far left and right come forward slightly, making the speakers more obvious as sound sources. Width is excellent—as good as I've ever heard—but depth is reproduced better in the middle than at the edges of the soundstage.

Other nit-picks: High frequencies are just a tad homogenized. Detail on cymbals is softened a little, with the metallic overtones toned down a bit. Notice the "weasel words" I just used: "a tad...a little...a bit." I hate that kind of wishy-washy language, but it accurately reflects what I heard. I was sim-

ply hard-pressed to find fault with the Rotel.

Now we come to the more subjective, flighty criticisms—the criticisms that compel reviewers to color their prose purple with words like liquidity and texture and bloom. My very personal reaction is that the Defy 7, along with other megabuck amps like Shannon Dickson's Rowland (on batteries, of course), has a sense of effortlessness that the Rotel can't quite match. The effortlessness has nothing to do with pace or punch or macro dynamics the Rotel has those qualities in spades. The effortlessness I'm talking about is more subtle, harder to pin down. Perhaps I have to dispense with the audio jargon and use a more figurative description here.

When listening to music through the Defy 7, I often find myself lazily float-



ing downstream on the musical currents; if I'm doing "that reviewer thing" and concentrating on the sound, I usually think to myself, "Nice, but what's the big deal?" Soon, however, without even being consciously aware of what's happening, I find myself on the edge of my seat, squeezing the armrests, bracing my feet, realizing that the lazy stream has turned into Niagara Falls and I'm on the ride of my life. To mix metaphors: One minute you're relaxing on the porch; next thing you know you're caught up in a vortex on a trip to Oz.

I can't pinpoint anything distinctly wrong with the Rotel in that regard, but neither does it take me on that kind of trip. With the right music, the transition from easy-going to intense, or from gentle lull to roaring climax, should happen with a shocking ease—like a force of Nature. The Rotel makes the transition more mechanically. To open up yet another can of wormy metaphors, the Rotel takes you on a terrific roller coaster ride, but you don't leave Kansas.

Again, the character of my reactions to the Rotel—the kind of subtle, nuancy criticisms I'm making here—are more appropriate to a review of a \$5000 amplifier. Let's not forget that we're talking about a very modestly priced product here. It really has no business being as good as it is.

That goodness primarily manifests itself as a sense of awesome power in the bass along with a seductive sweetness in the highs—a combo that's very hard to find in a solid state amp unless it's big and expensive and heavily biased into class A. Hooked up to the Snell B-minors, the Rotel seemed to draw an extra measure of low end response out of these speakers. I played "Feel No Pain" and "Cherish the Day" from Love Deluxe (Epic EK 53178), and I realized that the speakers are capable of more impact and tunefulness than I

had previously assumed. On Willie DeVille's *Live* album (Fnac Music 592254), bass lines were easy to follow, tight and full of good, growly texture. Hall ambiance was detailed and airy without being bright. Similar effects were heard on the Spectra 22 electrostatics: The Rotel helped tighten up a midbass bloat without sacrificing extension.

Although I noticed a slight edge on Sinatra's voice (Only The Lonely, Capitol CDP 7 48471 2), for the most part vocals were reproduced with good detail but without any emphasis on sibilants. Boz Scaggs' great new "comeback" album, Some Change, has a few ssssplashy sssssounds on the vocal sounds that are annoying on cheap equipment (for instance, in my car and on my video system). The Rotel controls the sibilants well—just as well as the Defy 7—but maintains a little more crispness; everything is quick and clean, without any slurring of transients.

Vocal nuances, which are fundamental to an appreciation of pop music, are reproduced beautifully—and in some cases accurately but not so beautifully. For example, the wealth of inner detail on Bonnie Raitt's Longing in Their Hearts, courtesy the Rotel 990, allows Bonnie's vocal technique to grab my attention, but it also reproduces a "double breath" (indicating a bad edit or a punch-in) at :45 into "Feeling of Falling." Systems lacking in transparency—like the one the album was mixed on, apparently—gloss over these nuances. The Rotel portrays them in sharp relief, but without ever seeming ugly or unmusical.

With the Rotel amp in the system, I used Dave Mason's classic Alone Together (Mobile Fidelity Sound Lab UDCD 573) as a reference when comparing my old Phillips 960 to a Museatex transport. The presentation became more transparent, more de-

tailed, deeper, and much more dynamic. Particularly impressive were the inner, micro dynamics—the subtle ebbs and flows of energy that give music life and power. A vague fogginess was revealed to be tape noise—I felt like I could count the ferrite grains on the tape emulsion. Fuzzy, overdubbed vocals disentangled themselves into individual strands. Lyrics became clearer. Smearing on sibilants sharpened up. My point here is not only that the Museatex is a great transport, but also that the Rotel 990 allowed these improvements to come through; it was not a limiting factor at all.

Want classical? You got classical. Rossini's "Il Signor Bruschino" from the Orpheus Chamber Orchestra (DG 415 363-2) is a wonderful piece featuring the violinists slapping their bows against their instruments. If your system's transparency is all that it should be, you'll hear a clear rear wall echo, and the Rotel gets it right. Pace and dynamics come across well, as does transparency; individual instruments within the ensemble are clearly delineated. Low frequency weight is impressive, yet obviously leaner and tighter than with the Defy 7.

The question I'm left with is: Why? Why does the Rotel sound so good? The Test Bench report again provides possible explanations. The excellent soundstage width may be due to the dual-mono construction. The big toroidal transformer "has separate secondary windings for each channel, and all the circuitry for each channel is independent of the other from that point on. The circuit boards for the two channels are actually mirror images, which costs more but allows each component its optimum placement in each channel." Further, the smoothness and transparency I heard may be the result of heavy copper plates being soldered onto the circuit board in crucial, highcurrent paths. Peter Aczel, in his otherwise favorable Audio Critic review, calls this "a kludge to reduce trace resistance." Kludge or not, it seems to work.

Again, my main complaint is with the amp's propensity for blowing fuses when hooked up to the wrong cable. I mentioned earlier that I decided not to bypass the fuses or try higher values, and that's because I now own the amp. I may risk blowing up a review product, but not one that I paid good money for. Will it replace the Defy 7 for everyday use? Not likely, but for speaker reviewing it's nice to have a solid state amp around for comparison, and this is a solid state amp I could live happily with. Thinking back on the amp I used to own before the Defy 7, a Krell KSA-80B, on sonic grounds I'd choose the Rotel over the Krell any day. Whoa, that's a scary thought—but great news for audiophiles on a budget.

Rotel RB-990BX amplifier, 200 watts per channel into 8 ohms, \$999.90. Rotel of America, P.O. Box 8, 54 Concord Street, North Reading, MA 01864-0008. Phone 800-370-3741; fax 508-664-4109.

Reference System: Theta DS Pro Generation II and Sonic Frontiers SFD-2 digital processors; Museatex transport; Well-Tempered Turntable and arm, with Marigo Labs arm clamp and mat with AudioQuest 7000 cartridge; Jadis Defy 7 amp; Convergent Audio Technology SL-1 Signature and Sonic Frontiers SFL-2 preamps; Acoustat Spectra 22, Snell B-Minor and B&W 802 series III speakers; Cardas Hexlink V and Rotel RHCC-10 interconnects; Ocos, Meitner, AudioQuest Midnight and Rotel RHSC-10 speaker cables; Bright Star Big Foot bases; Power Wedge II & Power Wedge V isolation transformers and conditioners; ASC SuperTraps; TDK and Radio Shack ferrite noise filters; Sims Navcom feet; AudioQuest UltraConnect cleaner; Harmonix/Combak feet; Nitty Gritty Model 2 record cleaner, DBX 14/10 analyzer.

Is It Music Mat, Meitner, or Murphy?

James Dowd

I received a telephone call from Russ "The Baptist" Novak a few months ago while at work. The big fella said he had a bag of tweaks he'd like me to put an ear to. I didn't realize I'd been observed "tweaking" in my neighborhood lately. Yes, I'd been known to lay a few Harmonix Tuning Sheets on a variety of CDs, perhaps even spray a disc or two with Laser Guide, but who noticed?

I stopped by his apartment in Brooklyn with a big question mark on my face, and was handed a shopping bag containing Music Mat Gold and four products from John Murphy of Compact Dynamics: CD Plus, CD Upgrade, CD Magic, and CD Clean. My assignment was to compare these products on two well-heeled transports and a CD player of my choice. I already owned the Wadia WT-2000, Russ had the Museatex transport on hand, and a fellow named Joe could be prevailed upon to provide the latest Sony CDPX 707 ES CD Player. No problem, I said. A snap.

At this point, however, Russ cautioned me. He felt the Museatex transport might make it difficult to evaluate the effects of otherwise useful CD treatments. Since the Museatex has the patented C-Lock at its output to eliminate jitter, the improvements, in theory, should be negligible. All of these products tend to address jitter in one form or another, and since jitter is jitter, it doesn't matter how the signal picks up jitter before it enters the C-Lock since it exits the transport as a clean reclocked signal. The only way to prove this would be to listen

TO THE MAT

Music Mat utilizes a technology known as constrained layer damping. Simply put, the mat is constructed in layers.

Rather than add mass, which can cause the servos to work harder, the layering technique keeps the product light in weight but effective in vibration control. Music Mat also uses a translucent green bottom layer to absorb stray infrared light. Music Mat Gold retails for \$79.95.

The Sony CDPX 707 ES CD Player was a gem to judge this product with. Playing cut 4 of k.d. lang's *Ingenue* (Sire/Warner 926840-2) first without and then with the mat, I noticed that inter-transient silence improved while the whole soundstage became quieter. Separation of instruments improved along with depth perception. In fact, the whole soundstage became neater and tidier. The fine feather of acoustic guitar became more obvious, while guitar harmonics sounded more truthful. Cymbals & percussion instruments similarly improved without the slight overemphasis on sibilants I'd previously noticed. Bass didn't sound any larger or stronger, although it took a step forward in definition. K.d. lang's vocals were slightly sweeter and more articulate.

Overall this product left a good impression and was missed when taken away from the Sony. I repeated this procedure with everything from intimate jazz to large orchestral recordings with massed strings, and the results were always the same: a neater, quieter soundstage with noticeable improvements in the harmonic integrity of instruments, coupled with better separation of those instruments. The Prognosis: The mat makes even good CD players easier to listen to over long listening sessions.

Now the bad news. While Music Mat Gold produced prodigious results on the Sony 707 CD Player, those results were marginal at best with the Museatex Transport. The fault lay not with Music Mat but with Ed Meitner, who invented the C-Lock at the output of the Museatex Transport. This, of course, is to his credit, but more on that later.

Trying the mat in my Wadia WT-2000 proved frustrating. The drawer of the transport wouldn't close, and when it did, it wouldn't open. Tracking was impossible. Wadia warns their customers about this, and for good reason.

BUT WHAT ABOUT MURPHY?

John Murphy formed a company named Compact Dynamics in 1991. His products have been reviewed in various publications, but never to the extent they should have been, judging by the fine results they produced on two of the reference rigs.

Murphy began by experimenting with the application of tape (label side, of course) to problem CDs that were slightly warped and wouldn't track. He got lucky, and with some persistence, overcame the anomalies of his CDs: The music played. He also noticed the music change for better or worse as he changed the position of the tape. This led John to believe that if he controlled his experiments, he could develop a product that would not only make warped CDs play again, but sound better to boot!

CD Plus and CD Upgrade are the first products he developed and marketed in 1991. The Plus is a small blue ring that can be attached to the inner area of the information side of a CD. The price for 25 of the small rings is \$14.95. The Upgrade includes the Plus along with a large stick-on disc, clear overall but blue at its outer edge, that is applied to the label side of a CD. The price of CD Upgrade is \$15.70 for a package of 10, and \$49.95 for a package of 50. It is important to note here that some people may feel uneasy about applying the large, stick-on disc to the whole label side of their CDs for fear of tearing the print

from the label side should removal later be desired, which is why CD Plus can be purchased separately from the Upgrade package.

These products serve a two-fold purpose: They improve the coupling of a CD to the player's drive mechanism while absorbing infrared and other types of light with the blue rings. John picked blue instead of the customary green because blue is closer to the ultraviolet end of the spectrum—in other words, opposite infrared. Whatever the technical explanation, John also felt blue sounded better. [Why the controversy over blue vs. green? If you want something to absorb the widest possible bandwidth of light, try black.—Mark]

CD Clean and CD Magic deal with CD mold releases and reflections respectively. The Clean, being a simple wash solution, removes dirt, oxidation and CD mold release compounds from a CD's information side, giving the laser eye a sharper look at the bits contained therein. More broth to the bit as it were. CD Clean is very reasonably priced at \$9.95 for a 4 ounce bottle, which can clean 250 CDs.

Spray CD Clean on the information side of a CD and spread the cleaner straight out from the center. After a few seconds, rinse your CD with lukewarm water and wipe off any beads of water remaining on the disc. CD Magic is also sprayed on the CD. This product should be wiped off from center to perimeter in straight strokes, without rinsing. Be sure to leave it on the disc a few seconds before wiping it off. The information side of the CD will appear clear while light reflections will have been all but eliminated, allowing the laser pickup to focus and track more accurately. \$14.95 will procure a 4 ounce bottle of CD Magic that will treat 200 CDs, and possibly more if used conservatively.

Now, does all this sound like snake oil? Well, hearing is believing. My listening

notes could reupholster a couch and possibly a chair or two. Take Wynton Marsalis Standard Time Vol. 3 (Columbia) CK46143). With Murphy's products in use, attack and decay on piano seemed richer. Bass was more robust and better defined, making bass lines and individual notes easier to follow. The brushed snare drum was better outlined, standing out in its own space. Separation of instruments within the soundstage improved, each taking on a more lively, lifelike part of the integrated whole. The harmonic integrity of muted trumpet seemed improved, with just the right amount of air around it. Cut 9 had a beautiful loping bass line riding astride a very palpable Marsalis trumpet, which seemed to feather itself beside and around its well-defined bass accompaniment.

Stephane Grappelli's *To Django* (Accord 401202) became more "lively" as the

speed and intensity of his violin playing was better expressed. You would think he was about to step into the room. Carmen McRae's vocals had more presence, with better articulation of words on "The Ultimate Carmen McRae" (Mainstream JK57122). There was a smoothness and life-like quality imbued to the orchestrations surrounding McRae's voice. The bass was focused and clearly more authoritative.

I could go on and on after treating all my RCA Living Stereo Reissues, because from Bach to Tchaikovsky there were always improvements in focus, clarity and soundstaging, with singularly improved dynamics. These four products from Compact Dynamics, when used together, improved dynamics on every CD I applied them to. They make digital playback not only easier to listen to, but a downright joy. It mattered not that I used a Sony 707 ES



player or a Wadia WT-2000 transport; CDs seemed to transform themselves into sonic knockouts every time. Months after the original application, I can immediately tell if I've treated a disc as soon as the music begins to play. The effect does not wear off.

But again the effects were not so obvious with the Museatex transport—audible, perhaps, but not astonishing. It seems the C-Lock circuit is capable of putting out a re-clocked signal much cleaner than the "raw" signal coming off the CD. See the Meitner/Gendron paper presented at the 1991 AES convention in New York for a technical explanation, or read Robert Harley's excellent article called "The Jitter Game" in Stereophile (January 1993, Vol. 16 No. 1).

LAST BIT SYNOPSIS

Music Mat Gold can produce prodigious results on the Sony CDPX 707. While discovering that improvements were marginal on the Museatex transport, and finding the Mat not to work at all in the Wadia WT-2000 Teac-based transport, I must nevertheless give this product a favorable recommendation. At \$79.95, it's certainly a bargain considering that you need only purchase it once to derive many hours of enhanced musical satisfaction.

CD Plus, Upgrade, Magic and Clean are four of the most indispensable products I've yet come across. Full treatment will cost you about \$1.25 per CD, but it's more than worth it. All areas of presentation were improved dramatically, with a strong suit in dynamics. Of course, with the Museatex transport, the differences were there but much more

subtle. Unless you are as fussy as I am, you may or may not do well to make a purchase in this regard, but I'll leave that decision up to you.

FINAL THOUGHTS

In closing, I'd like to add here that the improvements gained with the use of John Murphy's products in my Wadia WT-2000 left me forestalling the latest upgrade that can be made to the Wadia. I also can't conceive of anyone going out to modify the Sony CDPX 707 ES CD Player at considerable risk and expense when such excellent results can be gained from the use of Music Mat Gold or John Murphy's wonderful products. That said, I'm left with one final question: Does anyone know how to install this damn C-Lock in my Wadia WT-2000 transport?

Music Mat Gold, \$79.95, made by Finyl. CD Plus, \$14.95 for 25; CD Upgrade, \$15.70 for 10, \$49.95 for 50; CD Magic, \$14.95, 4 oz. bottle; and Clean, \$ 9.95, 4 oz. bottle. Compact Dynamics Co., P.O. Box 32014, Euclid, OH 44132. Contact John Murphy 216-946-0438, fax 216-451-2510.

Associated Equipment: Linn Kaber LS-500 Speakers; Purist Colossus speaker cable; Jadis Defy 7 Mark III amp; Purist Colossus and Music Metre Signature interconnects; Jadis JPL preamp; Monarchy 22-A Converter, Wadia WT-2000 and Meitner Museatex transports; Sony CDPX 707 ES CD Player, Music Metre "Fidelis" and Mod Squad "WonderLink" digital cables. Homemade, sand filled isolation bases & XLO Power Cords on all electronics.

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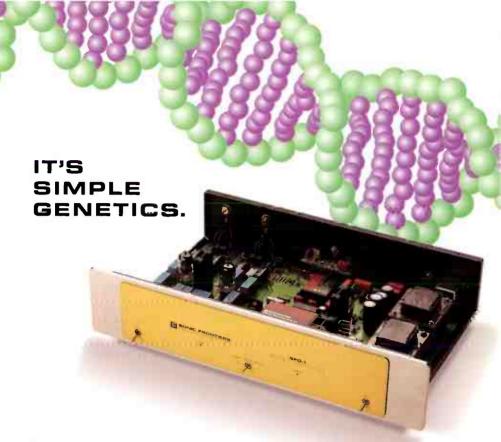
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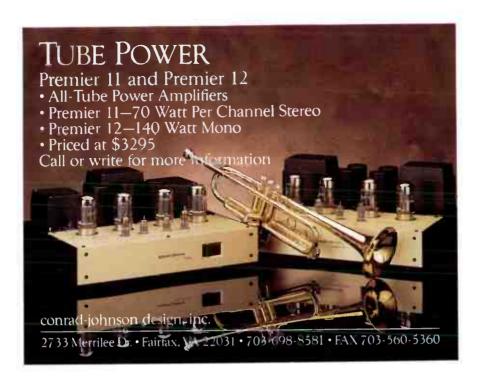
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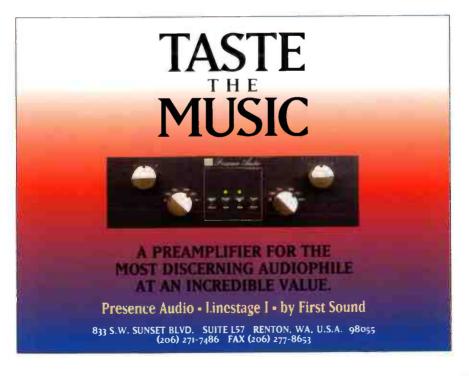


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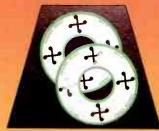


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