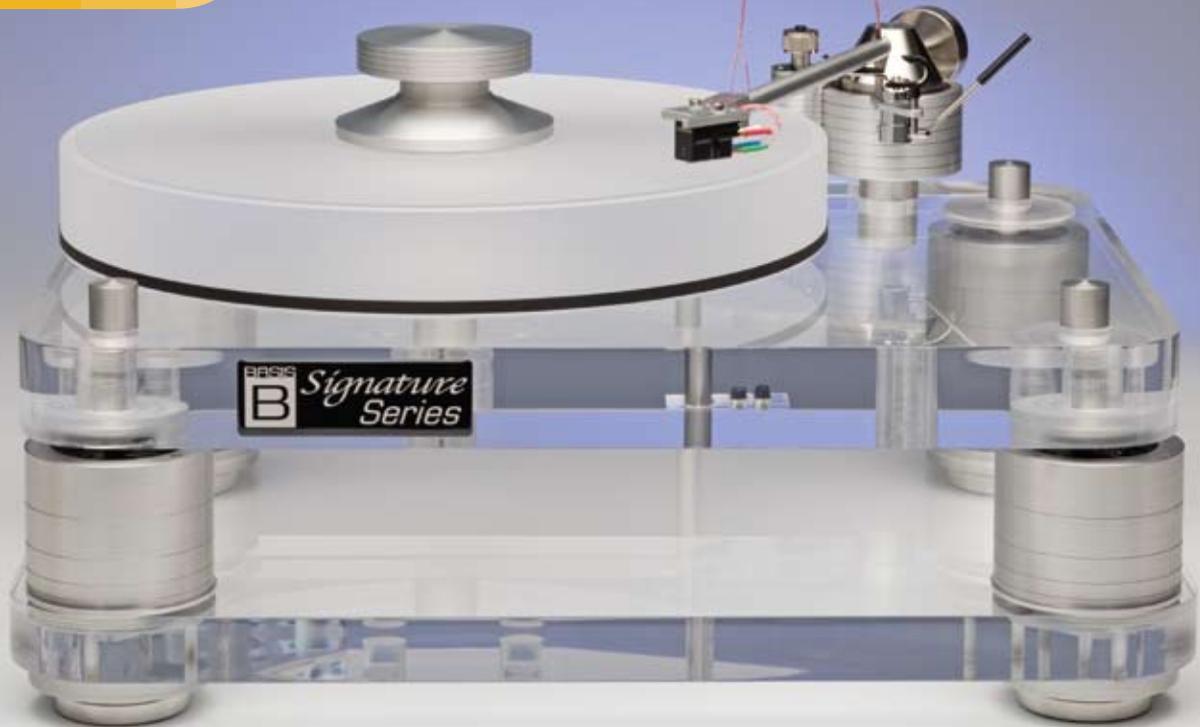


THE ULTIMATE ANALOG ISSUE



Redefining What's Possible

Basis 2200 Signature Turntable and Vector Model 4 Arm

Paul Seydor

A J. Conti, founder of Basis Audio, designer of its turntables and arms, and passionate enthusiast about all things vinyl, belongs to an increasingly rare breed of audio designer who hates mystique-mongering and is appalled at the ignorance propagated by audio gurus longer on so-called “art” than science. When Conti is queried about his own products, the answers are refreshingly free from puffery, promotion, and defensiveness, instead filled with references to physics, mathematics, and data collected from years of comprehensive and exacting research on every aspect of vinyl playback, including several that many designers have never even heard of. Ask him why he makes such liberal use of acrylic, and you learn about its non-resonant characteristics and mass-versus-strength properties. Ask about his switch from DC to AC motors, and he’ll tell you that “nobody can get zero speed drift with a DC,” but then quickly add that neither motor type is ideal. (I often get the impression he can’t resist telling you everything he knows about turntable/arm theory and practice, which is considerable.)

For Conti, designing record-playing equipment is science: Turntables and arms constitute electromechanical systems that behave in predictable ways that if executed with “fanatical

precision”—he rarely uses the latter noun without the former adjective—will produce equally predictable results. This precision in all aspects of manufacturing and engineering is key both to his philosophy and to the superior performance of his products.

The system under review here consists of the Basis 2200 Signature turntable (\$5200), the Vector 4 arm (\$3450), the Basis clamp (\$350), and the Calibrator base (\$1800). (See “associated equipment” sidebar for pickup information.) In an outstanding review of the Basis 2800 Signature and Vector arm in TAS 172, Robert Harley did so thorough a job describing their design philosophy, features, and performance that there is no need to do so again here. As the arm is identical (albeit not the same unit) and the 2200, though much less expensive than the 2800, shares similar design principles and some features, I urge all interested readers to RH’s review, including the informative interview with Conti.

If restricted to a single word to describe my first impressions, I can’t do better than what RH said of the 2800/Vector: “revelatory,” to which he added, “an astonishing transparency to the original source and lack of coloration, tonally and dynamically.” Wherein of course lies the rub: How do you

Technical Stuff

The deadline for this review was so tight that Conti couldn't clear his schedule to come to L.A. and do the setup himself, as he prefers, so the job was left to me. From unpacking to cueing the first LP took about two hours; a second time would take half or less. Switching pickups takes about twenty minutes. Granted I have long experience setting up turntables, but this one really is easily managed by anyone willing to follow carefully the idiot-proof step-by-step setup DVDs. In a charming moment near the end of the Vector DVD, Conti steps back and observes, "This isn't rocket science." Best of all, once done, the setup works flawlessly and remains unconditionally stable.

The only tricky task is setting antiskating, which essentially involves a variant of the controversial grooveless record. But Conti backs this up with such persuasive data that he convinces me, while the virtually flawless tracking certainly vindicates him in any practical sense. Owing to its novel dual-bearing design, the Vector is unique among unipivot arms in having intrinsically correct azimuth that also remains correct under dynamic conditions. If your pickup requires azimuth adjustment, Conti provides for it, but I personally would neither attempt nor recommend it: First, because you won't necessarily be able to get it back to the perfect factory preset; second, because any pickup costing more than a \$100 that needs azimuth adjustment should be returned!

This arm is a true masterpiece. When Conti walked David Fletcher—auteur of The Arm and the SOTA turntables and, like Conti himself, one of the few designers in audio you can call a scientist—through the design, Fletcher said, "Congratulations, you have solved the problems that drove me crazy about both ball bearing and unipivot arms." Conti asked if there were any compromises in his solution; Fletcher replied, "None." I know Fletcher well—he does not impress easily.

Robert Harley wrote that he knows of no other turntable at any price built to the level of precision of the 2800. But according to Conti, the 2200 is. Indeed, he claims that all Basis products are built to the same standard of precision. My father-in-law used to run a metal-finishing plant. When I passed along some of Conti's detailed e-mails describing the machining involved in the platter/boss/shaft/bearing assembly (see sidebar), with tolerances as tight as two microns, and told him how much the 2200 retails for, he asked, "How does it make any money?"

At \$10,800 (\$9000 if you skip the Calibrator base, which can be added later), the 2200/Vector combination is far from inexpensive. But when you add its peerless level of precision to its peerless level of performance, factor in the company's unprecedented ten-year warranty, then survey the far more expensive competition—can its value in any sense be seriously disputed?

describe transparency, absence, *lack* of coloration, what is *not* being contributed to the sound? As I've observed before in these pages, one thing that readily distinguishes truly superior components from "merely" good or even excellent ones is how starved they leave us for adjectives.

Be that as it may, the review must proceed, but I see no point in being coy about my final judgment: There is no aspect of vinyl playback in which this setup did not surpass any other in my experience, including but not limited to the areas of transparency, clarity, resolution, articulation, coherence, imaging, tracking, transient attack, tonal neutrality, dynamic range, frequency extension, pitch (i.e., speed) stability, low distortion and noise floor, and isolation from structural-borne acoustic feedback. Not once did any record, whatever its condition, appear to shake, rattle, or otherwise disturb the supreme confidence and composure of the presentation. At no time during the evaluations was I able to identify coloration, distortion, or noise that I could reliably attribute to the arm and turntable—the first time I've felt I could make such a statement about any record-playing components. The way the 2200/Vector allows the music to command attention, engage emotion, and stir feeling is all enveloping; and its ability to transport me to a musical event or place an instrumentalist or singer in the room is simply without peer in my experience of vinyl playback.

I started with an old favorite, *Ben Webster Meets Oscar Peterson* [Verve], and noticed something I hadn't before: the reverberation of Webster's sax, which is left of center, off the wall in the right channel. No, that's not quite right: It isn't that I hadn't heard it at all before, rather that the acoustics of the venue were never so obviously evident. Suddenly, the musicians were all playing together in a real place, its acoustical character felt now as a presence around and among them. All this before saying anything about the breathtaking vividness of Webster's fat, gorgeous tenor or the palpable warmth and vigor of Ray Brown's plucked bass or the gossamer touch and pellucid tone of Peterson's rippling piano.

I always seem to find myself reviewing new vinyl rigs around the holidays, so out come my many recordings of Medieval and Renaissance Christmas music. The most rousing of the bunch, *The Christmas Revels* [Revels], reenacts an old Mummers' Play that explodes in a riot of instrumental and vocal color. When the motley assortment of players first wanders in before Room calls them to attention (banging a spoon on a metal pail), individual remarks, little asides, snippets of dialogue emerge with a startling new clarity. A trio of cornetto, sackbut, and dulcian performs "The Monk's March," its earthy buzzes, rasps, and blats rendered with a more vivid individuality of timbre, harmonic character, and body. Indeed, the 2200/Vector had me pulling out record after record of pre-baroque music that I hadn't played for years, like David Munrow's marvelous *Instruments of the Middle Ages and Renaissance* [Angel]), just to wallow in all those gloriously strange, wonderful sonorities

Basis 2200 Signature Turntable and Vector Model 4 Arm

from instruments with weird, exotic names like crumhorn, rebec, stump, and serpent.

Since it came out in 1972, I've listened to the Bernstein *Carmen* [DG], especially the last act on side six, over so many systems I thought I knew everything there was to hear in it. Yet the 2200/Vector had the orchestra leaping from the speakers with thrilling new force—stupendous in its power, spine-tingling in its rhythmic drive—and revealed thickly scored passages with a new clarity of line and texture as if illumined from within. In the extraordinary passage where the brass play behind the male chorus, the space separating them seems almost measurable in the exactitude of its representation, while the instruments resound with unparalleled definition and dynamic extension. As with the Webster/Peterson LP, air and ambience—abundant in this recording—are far more evident, and the chorus is more clearly a large *group*, not a mass. The performance is fully staged for the microphone, this act in particular featuring a lot of coming and going by the principals, children's choir, a foreground chorus, a distant chorus, and individuals within the chorus. The soundstage is spread out in such amazing breadth and depth I felt I could walk through it, while all the offstage business in the bullring with Escamillo feels more distinctly revealed as a *distant* locale. Too much about the trees? Fair enough, the forest then: What has always been greatest about this recording is not its parts, splendid as they are, but the way it captures a living, breathing

SPECS & PRICING

Dimensions: 16" x 15" x 5.5"

Weight: 35 lbs.

Price: Basis 2200, \$5200;

Calibrator Base with Cable
Isolation System, \$1800;

Basis clamp, \$350; Vector
Model 4 arm: \$3450

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Associated Equipment

I used two phono pickups from my recent moving-coil survey (Issue 154). Although Dynavector's 17D Karat series has always performed far better than its relatively modest cost suggests (\$895), I was completely bowled over by the heights to which the 2200/Vector took Version III: My reservations (minor at best) regarding its lack of ultimate control, resolution, imaging, and inner detail totally—totally—disappeared. As for Clearaudio's Stradivari (\$3000), my new reference, its already astounding dynamic range (90dB, claims Clearaudio) appeared even wider. I doubt that there's any suitable pickup (i.e., of appropriate mass and compliance), regardless of cost, that will not perform to its maximum in the Vector arm.

Quad 2805 speakers were fed from McIntosh's C46/MC-402 preamp/amp combination and a Nova Phenomena phono preamp, all except the amp plugged into PS Audio's Power Director and connected with interconnects and cables by Kimber and Siltech.

operatic *performance* of flesh-and-blood vitality. This the 2200/Vector conveys with a more exciting, involving sense of occasion than ever before.

At the other end of the spectrum—emotionally, intellectually, musically—are Bach's Sonatas and Partitas for Unaccompanied Violin performed by Regis Pasquier in a treasured recording [Harmonia Mundi]. These are romantic readings on a "modern" (that is, non-period) violin in which Pasquier finds a vein of melancholy in these sometimes severe pieces that is so profoundly affecting I felt myself holding my breath at times. Although made at the dawn of the digital age, the recording is, blessedly, analog, the violinist and violin almost spookily present. The richness with which the 2200/Vector reveals the harmonic structure of both instrument and music simply disarms criticism. (I played a side for the assistant producer of this recording; a month later she's still talking about the experience.)

One thing that distinguishes genuinely outstanding turntable/arm/pickup systems is how well they handle all the usual impediments to clean playback: dust, groove damage, surface noise. I recently purchased a used LP of Doris Day's *Love Me or Leave Me* [Columbia]. The 2200/Vector enabled the stylus to dig down through the grunge and grit to retrieve a beautifully sweet and focused sound of remarkable dimensionality given the mono source. This setup is so stable, well controlled, and stress free that surface noises never appeared mixed into the music, rather kept separate and thus more easily ignorable. Which leads me to the subject of noise floors in general, background blackness in particular. The 2200/Vector easily rivals and may even trump the \$35,000

A.J. Conti on Machining the Platter/bearing Subsystem

"People like to cite design as if good design alone guarantees a great result. Yet precision execution is so often ignored in this industry. Take our platter/bearing assembly. The bearing is lavished with a minimum of 12 quality-control steps, 15 selective-matching steps, and seven precision-machining operations after the initial machining of the parts to achieve our goals for concentricity. There are very few mechanical devices that use fits like this, measured in microns.

"To illustrate the levels of detail and time involved I will describe just one small part of this 34-step process. When fitting a platter to the bearing, we don't just take a platter and stick it on a bearing. We mark platter and bearing, we measure eccentric run-out (out-of-round error) and vertical run-out (up and down movement) with tooling that will measure 0.25-micron errors, and mark the numbers on the platter top. Then we move the platter in 90-degree increments relative to the bearing and mark each set of readings. Then we narrow it down around the lowest reading by moving the platter in smaller increments around that orientation. Then we mark this match-up position on the bearing and platter. This operation will usually yield eight platter/bearing matchups per day if all goes well. That's another minimum one hour per unit. We take incredible effort to prevent tolerance stack-up.

"This obsession with fanatical precision is why you can rest a business-card edge against the subchassis top with the other edge extremely close to the platter, leaving a tiny gap, and spin the platter and see no gap movement, that is, no perceptible widening or narrowing of the gap. In our turntables, the error is easily less than one-fifth the diameter of your hair.

"The silence and near perfect rotational-roundness this design, engineering, and manufacturing process yields are certainly audible. But a perfect belt is also part of it. A pulley with eccentricity in microns is part of it. Extreme isolation is a part, as is cable isolation, with only the thin wire loop spanning the clean and dirty sides of the suspension. Each item makes a small but audible contribution alone. Add them all up and the effect they all have on purity, realism, and naturalness is unmistakable."

SME Model 30/2 (TAS 154), before now by far the best I'd ever heard in this regard.

By way of conclusion, a confession: Like most audiophiles, I hated digital sound when it first appeared 25 years ago. But even without the higher-resolution formats, digital reproduction has so vastly improved since then that I've become decidedly jaded with LPs these last several years. The special virtues of the medium notwithstanding, I have less and less patience with the detritus of vinyl and frankly find the whole ritual of handling records a drag. In view of this admission, perhaps you will better understand what a large statement it is when I say that the most telling, and certainly the most surprising, effect of the 2200/Vector upon me personally is that it's genuinely rekindled my enthusiasm for vinyl. I cannot remember the last time I went searching through my record shelves, renewing old favorites, discovering new ones. During the last two months, I literally did not have enough hours in the day to listen to all the music on vinyl that I wanted to. It is no accident that I've not mentioned a single "audiophile" or "specialty" recording in this review. To be sure, they formed part of the evaluation, and the 2200/Vector played them better than ever. But the greatest enjoyment a setup like this brings will come from the pleasures in your ordinary records, which constitute the vast majority of any collection. It's almost like getting a whole new library of music.

I've been setting up turntables and listening to vinyl for almost forty years, and as a reviewer I've had opportunities to hear under pretty reliable conditions many of the high-end turntable/arm combinations that are thought to define the current state of the art. Ironically, I've never heard the higher Basis models. I assume they must be better, but until I do hear them, the 2200/Vector has for me redefined what is possible in the playback of vinyl sources. **TAS**

