

## Home Audio Equipment Review



November 2002

### Ayre Acoustics V-5x Stereo Amplifier

*"Good? You have no idea -- but then finding out is an adventure you owe yourself."*



by Wes Phillips

About a year ago, I was among a number of audio journalists and retailers invited to Ayre's Boulder, Colorado manufacturing facility to participate in a roundtable discussion concerning the state of high-resolution audio and to brainstorm about its future. This seemed like a fantastic opportunity for some spirited give and take with some of my colleagues, and I was happy to participate. After all, I know what *I* think -- this was a chance to be exposed to other points of view.

As it turned out, most of the other pundits weren't comfortable with the prospect of sitting down with what they saw as "the competition," so the only audio scribe other than myself who accepted Ayre-head Charlie Hansen's invitation was *Stereophile's* John Atkinson. I traveled 2000 miles to talk with someone who lives four blocks away -- and Charlie and Ayre's *tweak-extraordinaire* Gary Mulder, of course.

But it was worth it, because we got the formal discussion out of the way over bagels and coffee and then we did what audiophiles do -- we retired to Ayre's listening room and began playing music, tweaking the system, and BS-ing into the wee hours.



### Review Summary

**Sound** "A relaxed presentation" that was always "natural and real"; "transparency, phenomenal tonal accuracy, and timing" along with "deep bass and bass authority"; "nuanced in its delivery of dynamics -- the softest passages seemed to emanate from well below what would normally be considered the noise floor."

**Features** 150Wpc (at 8 ohms) solid-state amp that uses "FETs in the input stage and bipolar output transistors at the output"; "fully balanced from input to output and [incorporates Charlie Hansen's] substantial power supply with its spectacular, *ahem*, Ayre Conditioner power-line RFI filter."

**Use** "Can drive just about anything you throw at it and always sound just right -- as opposed to some high-current amplifiers, which tend to add emphasis to the bass region of small speakers when they drive 'em."

**Value** "A *wonderful* amplifier that is so good at delivering the music without the same old audio characteristics that even a jaded old soul...can get excited all over again for the first time."

Of course, we were using Ayre electronics throughout the system: K-1x preamp, the brand-new (the prototype, actually) CX-7 CD player, and one of the first V-5 power amplifiers off the assembly line. It sounded *fantastic*. There was detail, sure, but most importantly, everything just hung together -- all the musicians started and stopped at the same time and everything we played had coherence and a ridiculously compelling listenability. And it was *sweet* -- nothing sounded thin or parched or congealed or cloying.

Most of all, it didn't sound like hi-fi.

It was probably the companionship. Stripped of any pressure to be "profound" or "insightful," we just relaxed and played a day-long game of "now listen to this one," interspersed with a certain amount of *ooing* and *ahhing* as Gary Mulder performed a series of logic-defying tweaks that were maddeningly audible.

It was almost definitely the companionship, of course.

But I'm an audiophile and I wanted to have that experience again, and when audiophiles feel that way, they tend to collect equipment (after all, you're not allowed to collect *people*). So I presented Charlie Hansen with an urgent demand: *I've got to have that amp!*

### **Letting daylight in on magic: the V-5**

The original V-5 replaced Ayre's ground-breaking V-3 in the company's line. The V-3 was the first Ayre product and, in its own way, it was a breakthrough amplifier. It certainly gave notice that Hansen, best-known for his work on the original Avalon loudspeakers, was a serious and individual designer of electronic gear. It was also one of those products people either loved or hated.

The 100Wpc V-3 was a fully-differential, zero-feedback, two-stage, all MOSFET design that was almost 90% power supply. It used stacks of inductive chokes, piles of filter capacitors, and a honking big transformer in support of Hansen's conviction that -- since an amplifier makes a (bigger) copy of its input signal by modulating the power supply -- the power supply essentially drives the loudspeakers.

Nobody else was building 'em that way -- that's for sure.

"And man, did I ever discover why!" Hansen exclaimed ruefully. "The problem with using chokes is that it's absurdly expensive. By the time it became apparent we had to come up with a replacement for the V-3, we'd raised its price again and again -- and we still couldn't keep pace with what it was costing us to build."

So, the V-5 doesn't use choke power filtration?

"Nope."

But you're using MOSFETs, right?

"Nope."

But everybody agrees that MOSFETs are more like tubes and simply sound better. Don't they?

"You've got to be careful about making generalizations about MOSFETs because there are vertical MOSFETs and lateral MOSFETs and they don't behave exactly the same. Almost no one uses the Hitachi lateral MOSFETs, though -- and while the vertical ones are very linear in the lower regions, they have a wonky, non-linear input impedance that results in some really nasty high-frequency distortion characteristics. Well, nasty-sounding to *me*, at least."

So when Hansen designed the V-5, he used FETs in the input stage and bipolar output transistors at the output -- 16 of 'em in each channel. He still doesn't believe in loop feedback, so there's none of that. And the V-5 is, like all Ayre products, fully balanced from input to output and boasts Charlie's substantial power supply with its spectacular, *ahem*, Ayre Conditioner power-line RFI filter.

### **What conjuration, and what mighty magic**

I received the V-5 while I still had the Dynaudio Evidence Temptation speakers set up, so I connected the V-5 to an Ayre K-1x preamp and Audio Research CD3 for a source-to-speakers differentially balanced system. Shunyata Research Aries balanced interconnects and Lyra speaker cables carried the signal from source to speaker.

One of the first things I played was "Make Me a Pallet on the Floor" from *Lovely Sunday Afternoon* [Daring Records 25101-3035-2] by guitarist Guy Van Duser and clarinetist Billy Novick and the crisp attack of Van Duser's finger-picking and the woody warmth of Novick's licorice stick inhabited the room. The sound didn't so much come from the speakers as it materialized in midair. That quality I had noted in Boulder -- that sense of the musicians possessing a higher level of synchronization than recorded music usually manifests -- was overwhelming. Can two musicians swing? *Those* two can -- and do!

Van Duser is a rhythmic marvel. On one of his older recordings he performs a virtuosic rendition of "Caravan," telling the story of the first time he heard a Chet Atkins record. Van Duser had never heard of overdubbing, so he set out to learn how to play solos as complex as the ones Atkins had created by accompanying himself -- and now that's how Van Duser plays all the time.

As I continued to audition the V-5, however, I began to unconsciously play discs that catered to its strengths of transparency, phenomenal tonal accuracy, and timing. It will sound strange to anyone who has heard the Evidence Temptations play full-blown orchestral music that I fell into a pattern of music listening that was eerily familiar to me as a former owner of original Quads -- I tended to listen mostly to chamber music, solo and small ensemble jazz, and acoustic folk music.

It's not that the V-5 ever sounded bad -- it didn't. But it never exercised the sort of control over the dynamic immensity of a great orchestral recording or even reproduce the steady pulse of a walking acoustic bass line in a lifelike way. When the Evidence Temptations finally went back to Dynaudio, I coped with their loss better than I would have anticipated

because the Ayre had never plumbed their full potential -- driving stand-mounted two-way loudspeakers like my long-term stand-by ProAc Response One Ses was more its speed. Ditto, the relatively easy-to-drive Roman Audio Centurions.

Whether we realize it or not, most of us end up choosing music or even other audio components based on what our hi-fis (or components in our hi-fi systems) sound best playing. That's why its important for reviewers to develop a stable of reference discs that test all the aspects of audio response. And even though I am aware of it -- and attempt to guard against it -- sometimes I forget this. I did with the Ayre V-5.

And part of that was due to how well the amp did what it did well -- it's hard *not* to like an amplifier as transparent as the V-5. Cantus' new recording, ...*Against the Dying of the Light* [CTS-1202] filled my listening room with the rich complexities of men's voices in a small, bright space. Pablo Casals' *O Vos Omnes* had such interior luster that it practically illuminated my room by itself. And the crisp attack of the piano in Debussy's *Invocation* had body and a controlled intensity that were seductive.

But we're talking about a \$3950 USD amplifier here -- it ought to sound pretty darn good. Actually, it shouldn't require any excuses. As this realization began to sink in, I understood that, although the Ayre in its *métier* had greater transparency and timbral truth, it was not as universally satisfying as some amps I'd auditioned at half the price.

### **'Tis nothing but a magic shadow-show: the V-5x**

And give Charlie Hansen credit for knowing it. When I called him to talk about the V-5, I could hear him slap himself in the forehead. "Oh, that's right! You have a V-5 -- I guess I should send you the V-5x we just released."

*D'oh!* What's different about it?

"We didn't change any of the stuff you like about it."

*Riiiiigghht* -- but since I hadn't told Charlie what I thought of the amp, I assumed he was just being cute.

"What's different about it?" I'm nothing if not original.

"I changed the voltage regulators on the input circuitry to a new low-impedance design."

Meaning?

"The new regulators are a zero-feedback hybrid circuit with an FET input and bipolar transistor output. This hybrid lowers the output impedance of the regulators and stabilizes the operating point of the audio circuitry better, especially during complex musical passages."

The V-5x outputs 150Wpc in 8 ohms and doubles that into 4. As for frequency response, Ayre quotes DC–200kHz! It doesn't look huge at 18" W by 16" D by 7" H, but it weighs 55 pounds, which makes it seem as dense as a black hole. The front panel is fairly plain --

other than Ayre's discrete gray, white and red logo, all it sports in the way of embellishment are a power button and a two-color LED set in a divot carved out of the aluminum. The LED glows green for standby and blue for on, since Hansen prefers the blue and figures you'll mainly be looking at the amp when it's on (which sounded strange the first time he told me, but is beginning to -- God help me -- sound reasonable).

An IEC mains socket lets you try different power cables, if that amuses you. The amp will take single-ended RCA input or balanced XLR (a switch activates your input of choice). There's also a balanced XLR pass-through for systems requiring multiple amplifiers. The speaker connections are special -- I assume Ayre makes them for themselves. They consist of a single threaded rod with a thumb-wheel that compresses a single non-conductive bar against both of the channel's speaker posts (nubs). I assume these accommodate bare wire, but they're ideal for spade lugs -- and they work better than any other speaker connection I've ever used. A large on/off rocker switch completes the rear-panel accommodations.

The V-5x is \$4500 -- if you own a V-5, Ayre will perform the upgrade for the difference in price between it and the V-5x: \$550. And trust me, you'll *want* the x version because Charlie wasn't exaggerating. Everything I liked about the V-5 has been preserved in the V-5x, except that now the amp has deep bass and bass authority, and it sounds *much* better throughout its range for them.

### **'Tis true; there's magic in the web of it**

Remember that I called the Centurions "relatively easy-to-drive?" Well, they are and they aren't. Their rated sensitivity is 93dB, but their DiAural crossover circuit makes them a capacitive load -- especially across the tweeter. As good as I thought they sounded with the V-5, they were transformed by the V-5x.

John Williams' *The Magic Box* [Sony Classical SK 89483] doesn't have gobs of deep bass, but it has a lot more than I thought the Centurions were capable of putting out from my initial V-5 audition -- and the pace and drive of the disc was completely transformed, as a result. Previously, I had reveled in the crisp articulation of Williams' fingering as he played these complexly rhythmic works -- with the V-5x, I felt the forward momentum of these headlong pieces on a body level. With the x-factor, Williams' guitar gained presence even on the solo pieces, and there was a far, far greater sense of the instrument creating sound in a real space, defining its environment with ever-widening ripples of sound -- the notes seemed to seek the walls and fill the room rather than simply float in its center like a guitar cutout pasted to a two-dimensional sheet of generic "space."

On a live recording like Dave Alvin's *Out In California* [HighTone HCD 8144], you could almost argue that the sound of the Guilty Men playing in Lobera Theater and The Blue Café was almost as big an attraction as the playing itself. Certainly, the sound of the band in those halls makes *California* a very different sonic experience than the studio sound on the band's superb-sounding *Public Domain* [HighTone 8122] -- to my ears, the live album has more juice, more guts, more excitement than the studio offering.

Either way, the sound of Alvin's deep voice and incisive guitar on "Haley's Comet" is pure rock'n'roll electricity -- and the V-5x was able to convey the sound as transparent, articulate,

and very, very powerful. No problems seizing control of the woofer with this amp!

### **But this rough magic I here abjure**

During my audition of the Ayre V-5x, I was fortunate enough to have two other high-performance stereo amplifiers on hand: the \$9000 Linn Klimax Twin and the \$5500 Aloia 15.01.

It's difficult to fault any of them -- each offers refined sound, balanced response, and phenomenally firm loudspeaker control over a range of loads. But for all the pleasure I've derived from it, the Aloia remains a puzzle I'm still trying to unravel (and I need to hurry, since my review of it will be published here within several weeks). But the Linn Klimax Twin is, hands down, one of the finest amplifiers I've ever heard.

Like the V-5x, it offers both single-ended and balanced operation. It also can drive just about anything you throw at it and always sound just right -- as opposed to some high-current amplifiers, which tend to add emphasis to the bass region of small speakers when they drive 'em. Got a pair of small stand-mounted monitors like my beloved ProAc Response One Ses? The Linn drives 'em with all the delicacy and grace of a low-output tube amp. On the other hand, with a deceptively capacitive load such as the Roman Audio Centurions, it just spits on its hands (metaphorically speaking, of course) and bears down.

So does the V-5x.

Both amps also share complete and total background silence -- a property you'd think was standard in high-end electronics. Yet, some circuits manage to extract so much detail and tonal and dynamic shading from the musical signal that it seems as though they aren't even playing the same discs as the competition. The Linn is one -- the Ayre V-5x is another.

Take an incredibly powerful, multi-layered work such as Brahms' *Ein Deutsches Requiem*. What distinguishes one performance from another are the details, of course. It's hard to find a performance of the work that isn't competent, to say the least. But some recordings, such as the new disc from the London Symphony Orchestra under Andre Previn [LSO Live LSO0005] distinguish themselves through all of the details they get so right. The LSO plays as though on fire, and Previn shapes an inspired and deeply passionate account of the work around his players' strengths -- one filled with drama and excitement not normally associated with the work.

The Linn Klimax Twin delivers the power and most of the tonal color of the orchestra and chorus, as would *any* high-quality amp. Engineer Tony Faulkner has produced another reference recording with this 'un. He has captured the choral singing with immense presence, and the tonal accuracy of the disc is just transfixing.

Soprano Harolyn Blackwell's one real showpiece passage depends upon her sumptuous purity and perfect phrasing. The Linn delivers the moment-to-moment incrementally minute shadings of that phrasing so realistically it gives me goose bumps. Any amp can make it "pretty," but it's the rare component that ramps the "passion meter" up to the max. The tonal color and purity take on a luster, revealing depth and space rather than simply color on

color. In comparison to a performer like the Klimax Twin, ordinary amplifiers make the music seem flatter and less incandescent.

The Ayre V-5x is one of the very few amplifiers that delivers anything like that level of performance. In fact, it was functionally indistinguishable from the Klimax Twin -- and it costs half as much.

### **If this be magic, let it be an art lawful as eating**

The Brahms illustrated the V-5x's greatest glory -- and I don't want to go too far off the deep end here -- but it seems to me that the glory part of music, that almost indescribable essence that defies definition, is its whole point. Just as the essence of poetry is the part that is lost in translation, the essence of music resists description in words. If words served, why would the music *need* to exist?

Well, *that's* what the Ayre V-5x delivers to a greater extent than almost any other amplifier I have experienced. In the LSO Brahms Requiem, the orchestra is rendered with absolute precision -- especially the cellos and basses, which color the piece with their dark sonorities. The disc's dynamic range is awesome (in the original sense of the word), ranging from a pin drop *pianissimo* in the first movement to a climax in the sixth that has the chorus and orchestra reaching majestic -- nay, *transcendent* -- levels.

This is material that let the Ayre V-5x *shine*. It was nuanced in its delivery of dynamics -- the softest passages seemed to emanate from well below what would normally be considered the noise floor and the rising ultimate climax just kept growing and growing and growing, seemingly without strain or limit.

Here, I realize I haven't even addressed the V5x's ability to simulate a three-dimensional soundstage. That's partially a tribute to how naturally it does so -- there's none of the usual sense of stereo "layering," which turns listening to a disc into the aural equivalent of a diorama with cutouts of the cellos here and the violas in front and to the left of them, with the soloists down front and nearer yet to us. The V-5x re-creates the illusions of depth and distance as well as anything I've heard and, yet, it's not "spectacular." The sound is natural and real.

Yes, there's depth. Yes, you can tell where everything is. Yes, yes, yes -- but it's a relaxed presentation that sounds real. *Real*, not *really impressive*. There's a difference, and I'm surprised at how surprised I was to discover that.

### **That old black magic**

In a sense, I suppose that's the most impressive thing about the Ayre V-5x. It has been a long time since a piece of hi-fi has made me experience recorded music in a new light. The Ayre V-5 was an interesting amplifier that had qualities I liked very much, but it wasn't a completely accomplished amplifier. The V-5x takes the potential of that first attempt and delivers all of it intact, while also improving its weak spots. The V-5x is a *wonderful* amplifier that is so good at delivering the music without the same old audio characteristics that even a jaded old soul like me can get excited all over again for the first time.

Good? You have no idea -- but then finding out is an adventure you owe yourself.

...*Wes Phillips*

[wes@soundstage.com](mailto:wes@soundstage.com)

**Ayre Acoustics V-5x Stereo Amplifier**

**Price:** \$4500 USD.

**Warranty:** Five years parts and labor.

Ayre Acoustics  
2300-B Central Avenue  
Boulder, Colorado 80301  
Phone: (303) 442-7300  
Fax: (303) 442-7301

E-mail: [info@ayre.com](mailto:info@ayre.com)  
Website: [www.ayre.com](http://www.ayre.com)

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