



EXOTICA

Audio Research Corporation Reference 3 Linestage Preamplifier and Reference 210 Monoblock Power Amplifier

Jonathan Valin

The very first time I powered up the new linestage pre-amp and monoblock power amps from ARC, I knew they were extraordinary. As fate would have it, I was listening to an EMI LP [ASD 2709] of the Shostakovich Second Piano Concerto, with John Ogdon the soloist and Lawrence Foster conducting the Royal Philharmonic Orchestra. This record sounds gorgeous on any decent stereo, but through the MBL 101 E loudspeakers driven by the Audio Research Reference gear I immediately heard something I'd seldom heard before

on any stereo system, though I hear it all the time in live concerts and recitals.

I'd call it "decay"—and it is that—only what audio reviewers usually call decay is the sound of a note that has intentionally been *sustained* by the performer and persists for a longer-than-usual time. A great example of this is found at the close of the first movement cadenza in the Montsalvatge *Concerto Breve* [London CS 6990], where the pianist Alicia de Larrocha sustains a chord via finger and pedal for what seems like an eternity, providing a little primer on the way a piano note gradually dies away—tone colors flickering and

slowly going out one by one, until all that is left is a single tiny persistent enharmonic overtone that only ceases to sound ever so faintly when de Larrocha finally (and audibly) lets up on keyboard and pedal. If your stereo is capable of superior low-level resolution, the genuine silence—the moment of rest—that follows the extinction of this barely audible harmonic is as breathtaking as the grandest crescendo.

Though the ARC Reference duo will reproduce this sustained note almost as clearly as the \$19,000 MBL 6010 D pre-amp and \$73,500 9011 monoblock amps, sostenutos are not the kinds of



decays I am thinking of. No, what I've got in mind is the way the harmonics of ordinary, *unaccented* notes briefly "hang" in the air before they are "covered up" by the attacks of subsequent notes. In life, you hear this all the time—particularly with piano played solo, but also with ensembles and orchestras. It is the aural equivalent of the persistence of vision—the way the eye/brain holds onto a series of images to form a complete picture. The ear/brain does the same with a series of sounds to form the continuity of music.

What the Audio Research Reference preamp and amp can do in combination—what they, in fact, did with John Ogdon's first few spare, heart-stopping notes in the gorgeous second movement *Andante* of the Shostakovich Second—is preserve the way the colors of each of those piano notes lingers just ahead of the note that follows, hanging their harmonics in space like a faint aural after-image between the dying off of one tone and the utterance of another. Our Mr. P likes to talk about "continuousness"; the Audio Research components give the word a new and, to my mind, essential meaning. They "fill in the gaps" between

and among notes more realistically than any other electronics I've heard.

If bringing a new and unparalleled realism to the reproduction of the duration of notes were all that the ARC Reference 3 and Reference 210 did, they would qualify as some sort of hi-fi breakthrough. But that is not all they do. Not by half.

First there is Audio Research's tonal palette. If, in life and in audio, tone colors must perforce be projected against a tinted backdrop, I'll take ARC's off-white canvas over the raven blackness of much solid-state, the toast-brown of certain other tube gear, and the chalk of certain examples of each topology (such as Spectral and middle-vintage ARC). To my ear, this "neutral" background interferes less with the purity of timbres—doesn't skew them as much toward the darkness of bass or the brightness of treble. As a result, tonal balance in the Reference gear is sensationally "right." I have not heard such meltingly beautiful, true-to-life string, wind, and brass tone nor such persuasively realistic reproduction of voices (try "All My Trials" on PP&M's *In the Wind* [Warner WS1507])—a record that, for vocal real-

ism alone, belongs in the Baker's Dozen of HP's SuperDisc Pop List) since I used the late, lamented Tenor Wp75 OTLs as my references, although the Tenors were substantially brighter and edgier in the upper-mids than the ARC amp and preamp and did not have their awesome authority in the bass.

Speaking of the bottom octaves... while nothing I've yet heard can outdo the MBL 6010 D/9011 on dynamics, extension, and resolution in the bass—at least with the difficult-to-drive MBL 101 E loudspeakers—the ARC combo comes closer than other amps I've tried, including some solid-state. (This is surprising for usually-thick-in-the-bottom-octaves tube gear and bears upon another one of ARC's successes—greatly improved bandwidth and overall transient response.) On massed cellos and doublebasses or timps or low brass and winds, the ARC gear has massive "authority," projecting bass-range crescendos toward you like rolling thunder.

Here we start touching on something I've mentioned so many times before that I feel a little embarrassed talking about it yet again: what I call "action."

By this word, I mean the ways an

instrument's sound changes position and size with the forcefulness with which it is played and the register it is played in. For example, in a recital hall a piano's upper registers typically seem to be projected above and slightly ahead of the body of the instrument; its middle octaves seem to be sounded closer to the body itself; bass octaves puddle up behind and below the instrument, to the rear of the stage. However, the size and position of any and all of these "staggered in space" registers can change instantly with changes in dynamics. Played *sforzando*, the middle octaves of the piano "leap forward" from their usual middle-ground spot—sounding way out ahead of the body of the instrument and making a much larger sonic image (and much more forceful sonic impression on the listener). The contin-

uous, register-and-dynamic-related swell and subsidence of instrumental voices from background to middle ground to foreground (and back again) is part and parcel of the live concert experience (and an essential of orchestration). Typically, however, it is not as much a part of the stereo experience.

In most hi-fi systems, particularly solid-state ones, instrumental images seemed to be "pegged" to a single plane. If a solo flute, for instance, is sounded fortissimo from the middle ground of the soundstage, it may sound larger and louder on a stereo, but it will not seem to leap into the foreground—will not change planes within the soundstage. And yet, anyone who has ever attended a classical concert can attest to the remarkable way a solo flute or piccolo played fortissimo can suddenly cut

through the densest orchestral textures and seem to float above and to the front of the entire ensemble, as if a sonic tractor-beam has been thrown on it.

All of this is a roundabout way of saying that this ARC gear is the best I've yet heard at reproducing instrumental action (or bloom)—particularly in the bass and midrange. As in life when big choirs of doublebasses and cellos start up, they don't just get louder at fixed spots to the far right and right middle of the stage; through the ARC Reference 3 and Reference 210, they are *projected* at you, swelling with weight and power and rolling toward the front of the soundstage just as they do in a concert hall. With a great recording filled with massive crescendos, like the Szymanowski Violin Concerto No. 2 [Philips 6500 421], the

A Great Leap Forward

The Reference 3 linestage preamp and Reference 210 (and Reference 610T) monoblock amplifiers are ARC's "statement" products—the latest designs of fabled audio engineer William Zane Johnson and, in my opinion, the best work he has ever done. (And that, folks, is saying a mouthful.)

Though housed in ARC's traditional chassis with heavy aluminum rackmount faceplates and those perforated metal cases with a zillion screws in them, the Ref 3 preamp and 210 monoblocks are "ground-up" designs that boast much stiffer, larger-capacitance power supplies and markedly wider-bandwidth, lower-distortion circuits than previous ARC gear. Both amp and preamp come with remote controls that allow you, with the Ref 3, to adjust volume, balance, mono/stereo operation, and polarity, and, with the Ref 210, to monitor power output in four different ranges, read bias for all six output tubes, and check line voltage from your wall socket. Both amp and preamp have large vacuum-fluorescent display windows in their faceplates that read out data via numbers and line graphs. However, both units sound substantially smoother, sweeter, and more neutral when these displays are turned completely off. (There is a button on the remotes that lowers and raises display illumination levels.) Turning out the lights does not prevent you from using the displays, as they come back on momentarily, at the lowest level of illumination, whenever you push a button on either remote or use the control knobs on the preamp.

The four circuit boards and two transformers of the

Reference 3 linestage are entirely new designs. The audio circuit is fully balanced, zero-feedback, Class A, based on four 6H30P twin triodes; the power supply is a tube/transistor hybrid consisting of 6550C and 6H30P regulator tubes with solid-state rectification. The power supply is claimed to have double the energy storage of the Reference 2 MkII, which may account, in part, for the huge improvement in transient response. The increase in bandwidth, which has skyrocketed from 60kHz to 200kHz, and the 12dB drop in noise undoubtedly also contribute to the Reference 3's improved transients and astonishing resolution of tone colors.

The Reference 210, which replaces the discontinued Reference 300 in the ARC line, is also an entirely new design, using custom parts and circuitry pioneered in the flagship Reference 610T. Like the 610T, the 210Wpc Reference 210 is a fully balanced, push-pull, vacuum-tube circuit, running three matched pairs of 6550C output tubes in partial-cathode-coupling mode. Two more 6550C are employed as driver tubes, each controlling one bank of three output tubes. Direct-coupled JFETs are used in the input stage, followed by a 6N1P vacuum-tube amplifying stage. Power-supply energy storage is claimed to be 787 joules—three-quarters the size of the three-times-as-powerful Reference 610T and nearly twice the size of the 300Wpc Reference 300 MkII! As with the Ref 3, the Reference 210's output transformer is an ultra-wide bandwidth design, with a claimed frequency response of 0.5Hz to 240kHz (-3dB). Once again, these improvements in energy storage and bandwidth are audible. **JV**

effect is awe-inspiring, because the soundstage is so *alive*.

The Szymanowski LP brings me to another salient ARC virtue. Together, the Reference 3 and Reference 210 throw the widest, deepest, tallest stage of any preamp and amp I've auditioned. Even though the Szymanowski disc has extraordinary staging on most stereos, you'd have to hear the wall- and mind-bending way that the References fill in the back third of my listening room to grasp the magnitude of the difference they make. As the orchestra gets louder and louder, it's as if curtain after curtain is lifted on a stage that grows progressively deeper and wider and taller. The effect is astonishing.

Even on smaller-scale recordings, the ARC duo does its inimitable sound-staging thing. For instance, on "Some Day Soon" from Ian and Sylvia's *Northern Journey* [Cisco/Vanguard VSD-79154], the guitar to Sylvia's left (listener's right) is imaged at least *three feet farther* to her left via the Reference 3 and Reference 210 than it is with any other electronics I've tried (and this is with the Tara Labs Zero interconnect and Omega cable that I thought, clearly mistakenly, were restricting stage width). In fact, the guitar moves so far to the left that it's not in my room anymore—it's somewhere beyond the wall, out in the alley. With the exception of the Zanden phonostage, which also had a neat way of injecting huge amounts of space between and among instruments, I've never heard anything like it.

As for the resolution of detail, though the ARC Reference 3 and Reference 210 resolve *certain kinds* of low-level information, particularly duration-related information, better than anything I've heard (harmonics and the decays between notes, as noted) and are at least an order-of-magnitude lower in noise and grain than any previous ARC

gear I've auditioned, they are not as adept as the MBL at resolving other kinds of low-level details, particularly transient-related ones.

ARC has beefed up the power supplies of both the linestage and the power amp to a point where instrumental attacks are much quicker, snappier, and more powerful—much more solid-state-like—than other tube gear I've heard. That said, transients still aren't as fast and clear as those of the MBL 6010 D/9011, not just in the bass and treble but everywhere. Nor is the ARCs' noise floor as low as the MBLs'. Since certain kinds of detail—like how forcefully an instrument is being played, precisely where on the stage it is being played, and how many other instruments are being played alongside it—are transient-dependent, the MBL has a large edge in the reproduction of the clarity, intensity, focus, and number of instruments. But then it has an edge in these regards over *everything* else, tube or solid-state. The ARC has an edge in reproducing tone colors, action (or bloom), soundstaging, and durations.¹

You may have noticed that I haven't mentioned the treble yet. That isn't because I dislike it. With the MBL 101 Es, via the 4-ohm taps of the Reference 210, the high end is soft, sweet, airy, and beguilingly beautiful, though rather ingratiatingly "forgiving" beside the remarkably realistic treble of the MBL preamp and amp. Via the Reference 210's 8-ohm taps (or when the Reference 3 is used with a solid-state amp), I found that the treble was crisper and less romantic, but still not the MBLs' equal.

I'll continue to comment on the ARC Reference 3 and Reference 210 as time goes by, and I get more experience with each. For now, it is enough to say they are genuine hi-fi masterworks. They are also priced quite fairly for state-of-the-art gear. 

SPECIFICATIONS

Reference 3 preamp

Type: Vacuum-tube linestage preamplifier with remote control

Number and type of inputs: One each CD, tuner, video, phono, Aux 1, Aux 2, and processor on XLR and RCA connectors

Type of outputs: Two main and one tape on XLR and RCA connectors

Dimensions: 19" x 7" x 15.5"

Weight: 29.6 lbs.

Reference 210 power amplifier

Type: Monoblock vacuum-tube power amplifier with remote control

Power output: 210Wpc

Number and type of audio inputs: One XLR (balanced only)

Dimensions: 19" x 8.75" x 19.5"

Weight: 74 lbs. apiece

EXOTICA REFERENCE SYSTEM

Analog front end: Walker Proscenium Gold Reference turntable/tonerarm

Cartridge: Clearaudio Titanium

Digital front end: To be determined

Loudspeakers: MBL 101 E, Kharma

Reference Monitor 3.2, SoundLab M-1

Linestage preamps: MBL 6010 D, Audio

Research Reference 3, Aesthetix Callisto

Signature MkII, Lamm L2 Reference, Edge

Signature 1.1

Phonostage preamps: Aesthetix Io

Signature MkII, Lamm LP2 Deluxe, Zanden

Power amplifiers: MBL 9010, ARC

Reference 210, Edge NL 12.1, Pass

Labs X350.5, Kharma MP150

Interconnects and cables: Tara Labs

"The Zero" and Omega, Nordost Valhalla,

Synergistics Research X2 Absolute

Reference

MANUFACTURER INFORMATION

AUDIO RESEARCH CORPORATION

3900 Annapolis Lane North

Plymouth, Minnesota 55447

(763) 577-9700

audioresearch.com

Prices: Reference 3, \$10,000;

Reference 210, \$19,999 the pair

¹ An informative comparison between the MBL and ARC gear can be had by listening to "Texas Rangers" on Ian and Sylvia's *Northern Journey* LP. As I mentioned in my Tara Labs review in the last issue, this cut has an echo on it that is essential to the stark, lorn quality of the lyrics and the performance. The MBL gear reproduces the transient slap of the duo's voices as it bounces back *toward the listener* off the rear wall more distinctly than the ARC does—more distinctly than anything else I've tried. But the ARC combo reproduces the way their voices trail away *toward the rear wall* with the same magical continuousness that it shows when reproducing the decays of notes. Both presentations are kind of amazing. And which products you will prefer will depend, to some extent, on whether you value astonishing clarity and transients or astonishing durations and tone colors.