Audio Research Reference 6

Replacing the long-serving Reference 5, and coming in below the £30k Reference 10, Audio Research’s Reference 6 preamp heralds a new phase in the company’s evolution

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Twenty sixteen is the 21st anniversary of the Audio Research Reference Series, and in that period, there have been seven line stage preamps. As a reviewer who takes the term ‘reference’ to mean a standard by which to judge other components, I have been wedded to the range since 2009’s REF 5. With the Reference 6, a new level of performance has been attained at the £12,000 level, the lower tier of the line.

Because Audio Research developed the Reference range into a family, rather than just a flagship preamp and power amp (plus phono stages and DACs along the way), the company added stereo and mono power amps of varying outputs and, of late, at least two line-stage preamps. The single-chassis REF 6 is the less costly of the two: the company’s ‘ultimate’ remains the REF 10 two-box affair [HFN Mar ’13], at three times the cost.

Because the ‘6 post-dates the ‘10, the gap is closer than one might think, and the Law of Diminishing Returns comes into play. Yes, the REF 10 is the ‘daddy’, but the ‘6 is not a case of glory through nepotism. Rather, it is to the ‘10 what Porsche’s Cayman is to the 911, and if you’re a car nut, you’ll know that the analogy doesn’t mean ‘cheaper’ – it means ‘less expensive’.

21ST CENTURY RETRO

One of the first products to appear under the aegis of ARC boss Mike Tsecouras – a dyed-in-the-wool tube-lovin’ audio casualty – the REF 6 had to replace one of the company’s most successful line stages. More importantly, it had a stylistic/aesthetic role to play because – after the company was acquired by Italians – the new G-Series [HFN Jan ’15] introduced a fresh look.

So, starting with the fascia, the REF 6 is as much a break from tradition as it is a continuance. Re-read that: this is no wild departure from a design language dating back to the early 1970s. The handles are still there, the laboratory-look remains, but the designers performed a visual segue that ranks alongside the new Mini, so you know instantly that this is an ARC preamp, but the look is 21st century retro.

Far more important are the improvements over the REF 5 SE. It remains a line stage, as ARC has kept phono stages as components on their own. Says Tsecouras, ‘The combined lessons learned from our flagship REF 10 line stage, and those from our recently released SE power amps became the starting point for the complete redesign of the REF 6 line stage.’

ARC’s continued support of a trickle-down philosophy explains why the new ‘6 is closer to the earlier ‘10. For openers, the REF 6 has a redesigned valve preamp stage using six 6H30 triodes instead of four 6H30 tubes. The company increased the tube count to provide more linear gain [see PM’s Lab Report, p33], in the quest for a more dynamic and precise sound.

I was told that by fitting a larger R-core power transformer, ARC has reduced the impedance of the REF 6’s power supply, which now boasts a lower impedance by using improved decoupling capacitors specially developed for the REF 6.

Also devised specifically for the REF 6 are the output coupling caps, ‘to allow the new circuitry’s linearity to be revealed, in both tonality and in image specificity’. That’s a mildly vague statement, not easily ascertained by mere listening, but it helps perhaps to define the sensation one hears when moving from ‘5 to ‘6 with levels matched: the ‘6 has an authority that

RIGHT: The vacuum tube audio stage employs six 6H30 triode tubes (three per channel) together with another 6H30 and 6550WE beam tetrode for regulation in the power supply.
reminded me of the ARC Anniversary [HFN Apr ‘11] and the ‘10, with the external power supplies.

**CASEWORK MAKEOVER**

Back to the externals. The outputs remain the same, with two sets of main outputs and one for record out, in both single-ended and balanced XLR modes, but the input layout has changed, while an eighth has been added. Instead of the inputs being labelled, with sockets grouped in vertical pairs of XLR-plus-single-ended, they are arrayed as four balanced inputs and four single-ended inputs. All are labelled only as ‘Bal 1, 2…’, etc, and ‘SE 1, 2…’, etc. Specific labelling of each is up to the user, via the new digital control section.

This makeover also added heavier, shaped side panels, which make the unit look butch, while providing more isolation to feedback from acoustic and mechanically induced noises. The luxury feel has been enhanced by the use of knobs and push buttons from machined aluminium, combined with new optical encoders. This feel is also evident in the all-metal remote [see p33], adding to the sense of opulence.

For once, the owner’s manual is essential reading, for when I switched sources for the first time, I got nothing out of a single-ended input. Scrolling through the menu, I found a setting called ‘Volume Reset’, fiddled with it, and out came the sound because that option determines how the REF 6 remembers levels… or not.

This has created a change to the row of buttons below the display. The REF 5SE’s processor and balanced/single-ended buttons have been replaced with ‘Menu’ and ‘Enter’. The processor mode is now in the menu, while the balanced/SE mode selector isn’t needed as the remote contains buttons for all eight inputs. The rest remain as per the ’5SE for power on, mono, invert and mute. Other functions in the menu include

**CHILLINGLY REAL**

I quickly discovered that, auditioned with REF 755E power amps and Wilson Alexias [HFN Mar ‘13], the REF 6 needs the recommended 300 hours’ burn-in to approach its best, with at least 20 minutes warm-up from cold. The review sample arrived with 250 hours on it, so – after an initial burst – I let it run-in another 50 hours over a weekend. It was worth it.

Knowing intimately the nuances of Eleanor McEvoy’s Naked [Moscodisc/Diverse DIV 052LP], I wasn’t prepared for an even more gut-wrenching reaction to her most emotional moments. And this is an LP where emotion oozes from every squiggle in the groove. While the ’5SE had charmed me for years, the ’6 found a way to open up the sound even more.

I can liken it only to a change from one grade of cable to the next level up, whether Crystal or Nordost or Transparent, when the gains to voicing are genuinely and easily discernible. Perhaps I’m privileged in having heard McEvoy live more than once, and as close to her as I sit to my speakers. The resultant portrayal was chilling, almost supernatural rather than merely authentic. That may sound like mere exaggeration, but such was the

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**GENERATION GAME**

Careful evolution best describes the path of ARC’s single-chassis Reference preamps, which started with the REF 1 in 1995, notable for its resemblance to ‘classic’ ARC preamps with its row of knobs above toggles, between handles. Its gain was all-tube, with eight inputs, but with full microprocessor control of volume, balance, record and input selection. It also featured fully regulated power supplies, dedicated analogue and logic transformers and audiophile-grade components throughout. The REF 2 from 1998 looked the same and allowed ’1s to be upgraded to ’2s. A unity gain stage was added, as was tube regulation. The REF 3 of 2004 was a full re-design, now featuring a fluorescent display and menu that replaced many controls. With the REF 5 of 2009, the circuit design was revised again, now fully balanced and operating in pure Class-A triode mode, but the basic look remained the same. Its valve complement comprised four 6H30s in the analogue stage, with a 6550 and a 6H30 in the power supply.
surprise that I was taken aback. When she thumped her acoustic guitar, the sound was so unsullied that I ran to find a facsimile (OK, my concert-sized Carvalho ukulele) just to hear the real sound of tapping on a wooden enclosure. A cigar box would have served. Regardless, it was a real wood tonality.

AND BASS QUALITY?

Readers know I’m no bass fetishist. But turning to the pre-disco/funk classics on both CD and vinyl – the Detroit Emeralds’ “Feel The Need” [Greatest Hits, Westbound CDS253 119, CD, and Feel The Need Atlantic K50372, LP] and “Rock The Boat” by The Hues Corporation [The Very Best Of The Hues Corporation, Camden 74321 603422, CD, and Freedom Of The Hues Corporation, Camden K50372, LP] – I discovered what may be the most staggering gain of all.

Let’s back up a mo’. The McEvoy experience wasn’t just about transparency. There was a fully-formed soundstage, the three-dimensionality of a standard I have always expected of Audio Research. Tonal neutrality was, to my ears, absolute, with no ear-jarring anomalies. After that one track, I was ready to sign off on the ‘6 as a target of true lumpiness. But the lean, mainly-unplugged McEvoy LP is no feast for headbangers, nor bass junkies, for it’s a test primarily of neutrality and presence. So far, the REF 6 had ticked every box bar transient attack and bass in its various measures, but only because it hadn’t been so challenged. Both the disco cuts and the sweet string sections possessed the tube-y sweetness that I could never give up, no matter how much I respect solid-state achievements from that genre’s maestri.

Wham! The rolling lower octaves of both of those early 1970s treasures added a foundation I had never heard in my system. Extension, weight, sheer mass – the bass was as profound as I had heard from far larger systems than my Wilson Alexias. And the attack? The brass was so sharp, so punchy that I almost wished I understood square waves and oscilloscopes…

Although I’d heard the REF 6 four times before using it in my own system, I was not completely prepared for the leap in sound quality. It became evident mainly because I could run it side-by-side with a ’5SE. The gains are as extreme as those between two generations of Ferraris. They are vivid and so readily apparent as to defy expectations. Hell, it’s so good that, if you don’t have £30k for the REF 10, then you won’t lose sleep ‘settling’ for the REF 6.

Audio Research has never put a foot wrong with its Reference models. I’ve played with most, and must admit that some stand out more than others. The REF 6, I believe, will join the ranks of the revered SP6 and SP-10. We’ve been subjected to so much hyperbole (mea culpa) for so long that superlatives lose their impact. But here, ‘masterpiece’ doesn’t come close to describing what ARC hath wrought.

Sound Quality: 91%