

# Less is More

## Wavelength Audio Mercury Single-Ended Tube Amplifier

BY STEVEN ROCHLIN

**It is no secret that the best ideas are also the simplest. I, for one, can not imagine life without Post-It™ notes, the purity and lifelike playback of direct-to-disc vinyl... or the triode tube. In the ever increasing complexity of today's audio world, it doesn't get much simpler than single-ended tube amplifiers. In fact, when compared to modern, massive, high-wattage solid-state offerings, single-ended tube amplifiers use but a fraction of the parts. Now, what if someone were able to design an even more distilled-down, simpler version of a single-ended amplifier? Enter Wavelength Audio's Mercury single-stage amplifiers.**



Wavelength Audio has long been known for its very high-quality vacuum-tube amplifiers. They began in 1989 with the initial release of the highly regarded 8-watt Cardinal single-ended amplifier—long before most folks in America knew what single-ended amplifiers were! In fact, I bought (and still have) a pair of the original Cardinal monoblock amplifiers! That alone may say much in this world of “amplifier of the month club” audiophilia. The first time I heard these single-ended amplifiers, I

was stunned by their clarity and harmonic integrity. Their sound was unlike anything my ears had heard. Upon opening up the amplifier and seeing the very, very few parts, I could not help but wonder how so little could do so much. Ah, less is more!

Now we fast-forward to the year 2000. The high-end audio world is abuzz about the glorious sound of single-ended amplifiers. Manufacturers seem to be sprouting up from nowhere and becoming quite successful. Western Electric is reborn! The

simplicity of the single-ended designs lead to more and more do-it-yourself folks rediscovering the joys of sniffing solder, since new kits, the likes and number of which haven't been seen since the old days of Heathkit (where I once worked), are also now available. There is the eventual progress, and new designs. Then come Wavelength Audio's Mercury monoblock amplifiers.

I say amplifiers, plural. Not because they are monoblocks—but since there are three different versions of the Mercury amplifiers. One model uses the Telefunken RS241 and produces 2.5 watts; a second iteration uses a Western Electric 437A and produces 1.5 watts; the version reviewed here uses the AVVT AV20SL output tube and produces 3 watts of output power. While I have heard the 437A version, I chose to review the higher power AV20SL version because of its extra output (said in good humor)—all 1.5 additional watts of it. It just seemed saner for the more, err, um, normal single-ended audiophile (normal?). Oh heck, why be normal?

Hooking up the Mercury was very straightforward. Simply insert the NOS Amperex EZ80/6V4 and AV20SL into their respective sockets, hook up the cables to each monoblock and power 'em on. Upon turn-on there is one thing I noticed—or should I say, did not notice. When you own the Avantgarde Acoustic Uno loudspeakers that are extremely efficient (100+ dB), it's natural to turn on an amplifier and hear some turn-on noise, a click or some slight hiss or buzz through the loudspeakers. When turning on the Mercury amplifiers, there was the usual heater lighting, but nothing else. So much nothingness that I had to check that the amplifiers were on and not damaged in shipping. They certainly were OK; when I pressed the play button on my CD transport, music flowed through my listening room. When I asked Gordon about the Mercury's signal-to-noise ratio, he simply said the amplifiers are “damn quiet.” While an engineer techno-geek might not be hip to this, it made sense to me. Upon further reflection, we must realize that the addition of each gain stage comes with a price: An accompanying increase in noise! Since the Mercury uses only a single-stage, there's less amplification of the noise. So again, less is more. All this is well and good, but can she play music?

## TAKE IT AWAY

First up was the incredible Classic Records reissue of *Beethoven Symphony No. 5* with the London Symphony (VICS-1103) on 180-gram vinyl. The sound of the instruments within their proper space is quite amazing! With the Mercury (the amplifier, not the record label!) I could sense the entire hall, front, back and side walls. As the music's urgency hastened to the first climax, I was taken aback. With the Avantgarde Acoustic Uno loudspeakers there was more than enough drive for the full dynamics to come forth into my listening room. Meanwhile, the natural decay of the instruments and subsequent "hall sound" was among the best my ears have heard of any system. Especially when the French horn solos during the first minute or so. You get such a great sense of things. Fantastic recordings like this one make evaluating equipment easier.

Moving on to more Beethoven, on went my direct-to-disc 45 rpm vinyl of *Piano Sonata No. 23 in F Minor, Op 57 (Appassionata)* (RDCE-4) performed by Ikuyo Kamiya on the Bösendorfer Imperial. First, let me state that this is an out-of-print record whose dynamics and sound quality will push virtually any system to its limits—it's not for the weak of heart! In fact, I wouldn't have even tried using this disc if it weren't for the Clearaudio Insider cartridge that was still in the system (my previous cartridge choked on the most dynamic sections). With the AV20SL-based Mercury amplifier, the piano's harmonics and clarity were stunning. While the most demanding sections did seem to have a hint of compression, the definition and clarity almost fooled me into believing a real Bösendorfer was in my home. This isn't an easy feat, for Bösendorfers are possibly the hardest piano to correctly reproduce. While the reproduction wasn't perfect, it was more than enough for a few friends who stopped by to be rather impressed. OK, so the lowest left-hand lower octave keys might have needed a few more watts for fleshing out the incredible dynamics and speed on this great recording.

Next up was my London pressing of ZZ Top's *Tres Hombres* (London 631). "Rumor spreadin' a-round in that Texas town. 'Bout that shack outside La Grange... and you know what I'm talkin' about." Classic ZZ Top is most excellent. If a system, or amplifier in this case, can groove, then one cannot help but get up and dance. The better

the system, the better the groove thing. You dig? Of course, pulsating music like this also shows how well the amplifier and its power supply can handle severe spontaneous dynamics. The drone of audiophile lounge lizard chick singer and piano music might show transparency, yet it really does nothing to show the true dynamic potential of music like good ol' ZZ Top. Please forgive my indiscretion. After all, music is fun! So many choices. So little time.

Moving along to the audiophile fave Miles Davis Quintet *The Great Prestige Years* box set (Analogue Productions 180-gram 5 LP box set AAPJ 035). As in my other reviews, the song "My Funny Valentine" from the *Cookin' With The Miles Davis Quintet* is carefully analyzed. The Mercury's full three-dimensional sound is mind boggling, yet not overblown or exaggerated. It is like the obvious differences in the way each and every performance hall and instrument is portrayed, in terms of the size and, sometimes, the shape of the performance hall. If the music is naturally miked and the hall is big, you can sense it. As for multi-track recordings, you can also get a good sense of what each microphone has captured on the master tape. This also allows us to hear those small physical movements a musician may take during the recording session. As for harmonics and natural ease, the Mercury AV20SL has them in spades. Stan Ricker deserves a medal of honor for his genius in remastering this great recording by the Miles Davis Quintet.

As to the acoustic bass sound and lower frequencies, I moved on to my completely silver-wired Audio Note AN-J/SP loudspeakers. Since some of you might not be familiar with these high sensitivity loudspeakers: They are stand-mounted 2-way units with a 1-inch dome tweeter and 8-inch woofer. Audio Note claims a sensitivity rating of 93 dB and a -6 dB point of 25 Hz. They closely resemble the late great Snells of days gone by, but with more modern parts and careful hand tweaking of each crossover (pair matched to 0.2 dB!). Hearing acoustic bass through these speakers was a revelation—not just in the octave-to-octave and note-to-note consistency, but also in the way you could hear the plucking of the string with the obligatory wood body resonating tune-fully. The AN-J/SP offered a very different presentation than the Avantgarde Acoustic Uno. While lacking in the "thereness" and speed department of the Unos, the AN-J/SP

offers an abundance of textural richness along with the same amazing ability to render a glorious soundstage.

Other songs on the Davis album came across with the same sense of dimensionality; you can virtually sense the mood within the room during the recording session. The stripping away of the now unnecessary gain stages seems to create dead quiet background with instruments coming forth from total darkness. It's like the difference between DVD Video's and Laserdisc's renderings of black. Even with these lower sensitivity loudspeakers (93 vs 100 dB sensitivity rating of the Unos), there was always plenty of drive and a seemingly endless headroom. While I wouldn't recommend using the Mercury with a low sensitivity, erratic impedance load like a Thiel, it should have no problem making a properly designed, high sensitivity loudspeaker, sing.

Since many lovers of horns and single-ended tube gear also love good ol' rock 'n' roll, I took out one of my favorite recordings to test the amplifier's pace, rhythm and boogie factor. Switching back again to the Avantgarde Acoustic Uno loudspeakers, onto the turntable went Neil Young's *Harvest* on vinyl (Nautilus NR 44), a great album with very well-recorded music, in my humble opinion. On the song "Old Man" I was startled by the extent to which Young was "in the room" with me. It was not like looking into a bubble of the musical performance, but more like actually being at the performance. From the sound of the individual strings to the resonating body of the guitar, the whole performance was more real and "in my room" than ever before. When the London Symphony Orchestra joins in on "A Man Needs a Maid," the orchestra is extremely well laid out behind Neil. Of course, I did listen to more proper orchestra music during the review process, and it only confirmed the Mercury's ability to properly reproduce orchestral works.

How could any review including this album not comment on the song "The Needle and the Damage Done?" Neil Young's bittersweet voice singing about his friend's decline into heroin addiction and the personal fight with substance abuse reached deep into my soul. The more transparent the system, the more the emotions and small nuances come forth. The song "Heart of Gold" and its slow rolling rhythm was also nicely reproduced. Before

## Wavelength

I forget to mention it, there were also moments of hard dance and '80s music played through the Mercury, and it seem to take a licking and keep on ticking (with all due respect to the Timex watch).

### THE MORE (MUSIC) THE BETTER

Never again will I be victimized—in this world of ever increasingly complex audio systems—with more components (DACs and transports for example) that, in turn, add more parts into the signal's path, by anyone stating that a part in their component "is not in the signal's path." Fortunately the rebirth of simple, high-sensitivity loudspeakers like those from Avantgarde Acoustic and Lowther, combined with this new single-stage amplifier from Wavelength Audio, gives us an ever purer, less contaminated musical signal.

While no sane reviewer would recommend using the Mercury amplifier for strictly subwoofer duties or with less than higher-sensitivity loudspeakers, it does (within a properly designed system) make for one for one of the most mouth-watering sounds I've had the luxury to enjoy. If I had the extra finances, the review samples would be mine. Such incredible resolution and vibrant dynamics with fully fleshed-out three-dimensional space is a rarity in many modern systems! Though I felt five years ago that the ultimate sound was a 200+ watt amplifier combined with power-hungry loudspeakers, today that system sounds artificial and compressed. It also

## TECHNICAL HIGHLIGHTS

**T**he fundamental principle behind Gordon Rankin's new Mercury series is the use of a SINGLE tube between the amplifier's RCA input and the loudspeaker binding posts. To accomplish his goal, Rankin uses what is called Parallel Feed (PF) output technology. Simply stated, it is the use of a transformer that does not handle DC current like today's more popular Direct Feed (DF) output transformers. Instead, a large inductor is used to load the DC flow into the output tube and the PF output transformer is then capacitor coupled to the plate of the output tube. This benefit of this technology is higher output power—while at the same time offering a lower noise floor and deeper low frequency reproduction.

In his Mercury amplifier series, Rankin uses a step-up transformer directly connected to the RCA input connector. The output of this transformer is subsequently connected to the input (grid) of the output tube that in turn is connected to the binding posts via a parallel feed output transformer.

An identical power supply is used in each of the three versions of the Mercurys. A tube rectifier creates the DC high voltage with Black Gate capacitors and hand-wound inductors used in a Pi configuration filtering this voltage. Again, it's the "less is more" technique. The chassis is made of brushed stainless steel and topped with a choice of curly maple, walnut or cherry (other finishes upon request). Fit and finish is first-rate—though the Mercury's aesthetics might not be of the sensual variety of some other tube amplifiers.

shows how much this industry has realized that less is more.

Of course, even the simplest amplification will not interest everyone. The three-watt output of the AV20SL-based Mercury will, unfortunately, make this amplifier only a curiosity to most audiophiles. In my humble opinion, this is a travesty, since the strong love of high-sensitivity loudspeakers combined with low wattage amplifiers has such a deep and fervent following. And it will only gain momentum from reviews of products such as Wavelength Audio's Mercury amplifier. In the end, it comes

down to this: Less is truly more. ●

► **Wavelength Audio Mercury Single-Ended Tube Amplifier**, Wavelength Audio, 4539 Plainville Road, Cincinnati, OH 45227. Tel./Fax (513) 271-4186. Web site: [www.WavelengthAudio.com](http://www.WavelengthAudio.com). Designer: Gordon Rankin. Type of amplifier: Single-ended tube triode, single gain stage. Tube complement: 1 x AVVT20SL and 1 x NOS 6V4 rectifier. Power Rating: 3 watts. Frequency response: 12 to 45 kHz (-3 dB). Input sensitivity: 2.5 volts. Input impedance: 2500 ohms. Weight: 12 lbs. Dimensions: 5½ x 9 x 12 inches (w x h x d). Price: \$5,000.