



A step in the Right Direction

In the world of electronics, size provides an accurate index of the relative age of a technological artefact. Big or heavy generally implies old and usually translates as 'obsolete'. Well, I'm here to say that single-ended triode

amps are definitely **BIG** in the States these days. In light of this triode fever epidemic, it appears that the widely believed rumours that this 1930s technology was obsolescent fifty years ago may have been premature.

I don't mean to suggest that the American audio industry was slow on the pickup or anything, but single-ended triode amps didn't appear out of nowhere. They've been a cause celebre in the inner circles of world audio mania for decades. However, here in the land of Krell and Audio Research, the traditional 'high-end' discussion on the topic of triode amps consisted of a few watery comments about old Japanese guys with horn loudspeaker systems, before quickly shifting to something more sensible. If there is any truth in the notion of progress, a seventy five pound, fifteen watt single-ended triode amp with jazz age era output bottles surely belongs in the dust heap of audio history — not as the subject of wildly positive reviews in the latest high-end journals.

When triode amps began appearing on the US audio scene, several native hi-fi scribes quickly took under their wings the biggest, baddest specimens of this new/old technology — huge triode monoblocks with 211 and 845 transmitting tubes. Heck, I probably would have done the same thing myself.

**THIS MAN IS INTO VALVES,
BUT NOT JUST ANY VALVES,
JOE ROBERTS IS TRIODE
MAN. HERE HE TRACKS THE
RISE AND RISE OF THE LOW
POWERED VACUUM TUBE.**

Maybe it has something to do with American culture, or maybe it's some kind of universal male thing, but there's something undeniably convincing about an eighty pound amplifier outfitted with blazing hot, foot-long industrial strength firebottles.

Whether such amplifiers are 'fetishised' because they look like something out of Tesla's lab, or merely tolerated in spite of it, is best determined on a case-by-case basis. In any event it sure is hard to look disinterested when confronted with a hundredweight plus of solid triode amp cooking away on the launch pad.

No way around it, high powered triode amps are very substantial devices. It is through sheer majesty of dimensions and heft that these amplifiers make their initial mark on our awareness. The dazzling white incandescence of thoriated tungsten filaments adds a touch of dramatic presence to any event. These instruments don't just take up space — they fully occupy it. A serious triode amp remoulds its environment with light, heat, and other ethereal energies. There is some heavy physics going on there — you can feel it with all of your senses.

Let the doubters rail on. When you spin some vinyl and turn up the wick, your ears will tell you that your eyes were right: this is something special. These directly heated time machines transport you into a zone where local notions of obsolescence and technological progress don't relate. Good triode amps do funny things to the space-time continuum. The sense of presence and 'being



there' can be surreal.

Maybe the uncanny event recreation abilities of SE triodes results from some sort of sonic gimmick, a harmonics and mirrors illusion. If so, it's the best kind of trick — one which gains rather than loses magic with time. After hearing a dozen or so such amps I am beginning to recognise some consistencies in the 'triode sound', but I'll be doggone if I can adequately put it into words. After running SE directly heated triode amps for a few years, many push-pull beam tube amps sound strained to my ear, as if they are trying too hard and all the effort is holding them back. The magic of single-ended triodes has something to do with the combination of a relaxed presentation and incredible speed and responsiveness. The over-used term 'natural' comes to mind.

Attributing this highly subjective sonic trait to a particular circuit configuration would require some vigorous groping in the dark. One obvious and noteworthy characteristic of SE designs is that they do not employ phase splitters such as are necessary to drive push-pull output stages. Consequently, SE can be considerably less tricky and complex than typical two-tube power amps; in simplistic terms, SE circuits do not dissect and then reassemble the musical signal as it passes through the amplifier. This philosophically correct electrical attitude may be the key to the truthful sonic performance of such devices.

No doubt about it. This SE triode stuff encourages profound reflection. Your first listen to a well tuned up triode powered system may lead you to you re-evaluate everything you ever heard up to that point. The initial wonderment I experienced with triodes never died away, and gradually transformed into a respectful ongoing fascination.

How can such a 'low power/high distortion' circuit put forth such dynamic, pristine, and vivid music? Beats me. More than one sober enthusiast went yogic after living with single-ended triodes and pondering the mysteries of the art, The SE sound is such a direct one

and so fundamentally 'right' that it's somewhat difficult to dissect in conventional analytical terms. The whole presentation of the musical experience is redefined in a fashion that disarms the most jaded. I guess you just have to be there yourself to understand.

Until the emerging North American triode renaissance began to take hold, getting to the place these amps take you was an uncommon treat. Triode amps were the exclusive territory of intrepid DIYers, since you simply couldn't just go out and buy an SE amp in the US, regardless of the size of your bankroll. It's unusual in today's world that you have to go out and build something because you can't buy it. It was a healthy challenge which brought many of us to a new level of involvement with the hobby. There is nothing in audio as exciting as the first audition of an amplifier you've built yourself — especially when it plays like a good SE triode should! Naturally, not everybody was ready for homebrew triode madness. Some commercial interest was required to lift the technology out of the deep fringe nether world and into the mainstream of audiophile consciousness.

Today, SE amps have fully arrived as 'real products' in the US market, mostly thanks to the efforts of designers who were true believers in the technology back when the audio professionals were laughing up their sleeves at the 'single-ended' crowd. As mentioned above, the high profile products these days are single ended 211 and 845 amps even though there are number of sweet low powered amps on offer from an ever growing number of manufacturers.

The first 'Born in the USA' big triode amplifier to break into the local press was the 805 from Cary Audio, a company which has been a major player in the US tube scene for a number of years. At the Winter CES, the big Cary amps were looking and sounding good in quite a few installations. This all-business amp features a 211 output tube driven by a 300B in the latest version. A visit to any of the rooms in Vegas where the 805 was



Last year's Cary 805 sans 300B driver, but still capable of showing what genuine SE triodes can do.

cooking would quickly dismiss any doubt that amps with one output tube can totally energise a room with sound. These bad mister fifty-watters can really rock and roll, even on jazz and classical material (even! Ed.)

Another offering which oozes personality is the Kyrie single 211 amplifier from Chimera Labs. As the name suggests, the sound is claimed to inspire shouts of 'Lord, have mercy'. This 100lb/15W per channel monster amp uses an EL34 to shunt regulate the 6SN7 input stage and a second 211 to shunt regulate the B+ for the output tube. Chimera design whiz John Camille is an ex-fighter pilot and military-spec engineer who modifies and upgrades Tektronix test equipment in his spare time, so expect these babies to hold up on the test bench. Also expect a long mean time between failures — where John comes from, 10K hour reliability goes without saying.

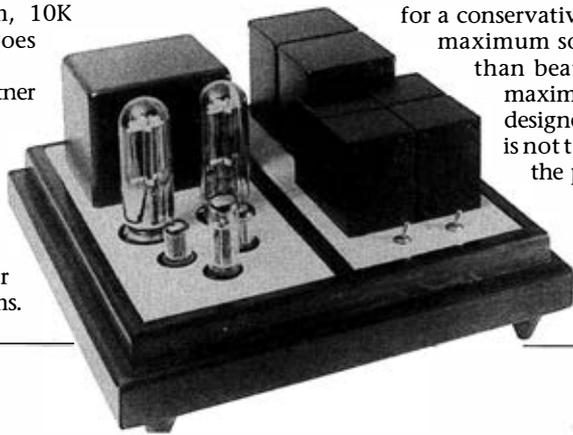
Chimera Labs partner Dennis Boyle is a long time collector of theatre sound equipment and is known to have a special fever for LARGE horn systems.

Not coincidentally, the Chimera Labs reference system is housed in a converted movie theatre in Dallas. These guys are currently installing a no holds barred, four way, full range horn loudspeaker system custom designed by Dr Bruce Edgar. The Texas-sized bass horns are each the size of two refrigerators, so there shouldn't be a shortage of bass in the place: those Chimera boys really know how to have a good time.

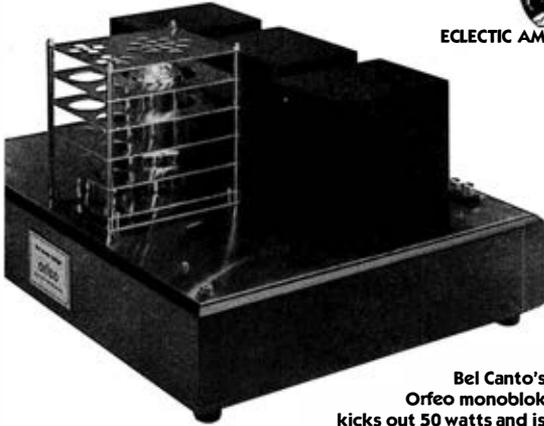
Another newcomer guaranteed to excite the fantasies of every thermionically oriented audio maniac is the Orfeo from Bel Canto Design. This single 845 dream machine sports a distinctive heatsink/ornament that is just too cool for words. The Orfeo allows the use of either balanced or unbalanced operation through a transformer coupled input. All electronics are mounted on a floating subchassis to eliminate mechanical vibration effects. The power bandwidth of this zero negative feedback amplifier is impressive — 3dB down at 4Hz and 40kHz at 30 watts. What a sexy piece! I mean, how can you go home to a black box integrated after you feast your senses on this fantastic 50 watter. Go ahead, sell your car and buy a pair.

In some ways, Wavelength Audio typifies what the scene is all about. Chief Engineer Gordon Rankin, a prolific experimenter back in the hacker days of triodes, handbuilds good honest amplifiers with the finest available parts. Not being much of a hypester, Gordon doesn't bother to get involved with the horsepower race: Wavelength's Sole 845 SE amp

uses a 300B to drive an 845 output tube for a conservative fifteen watts of maximum sonic glory, rather than beating the tube for maximum power. As the designer puts it "the idea is not to get a lot of watts, the point is to get the



The Chimera Labs 211 stereo power amp not only sounds great but is bullet proof too.



Bel Canto's Orfeo monoblok kicks out 50 watts and is totally bodacious to boot.

most out of every watt." The Sole recently sent a few very famous reference grade PP pentode amplifiers looking for homes in the secondhand marketplace.

Now there is nothing wrong with a nice 845 amplifier, but I personally look forward to the day when the American market is ready for Wavelength's not yet in production one and a half watt single 45 amplifier. Heard that mighty midjet blow the doors off the house on pair of Klipsch La Scalas one time. When you've had experiences like that, you wonder how the commonly held notion that SE amps are only suited for light duty ever got started. Although single ended amps excel on mellow fare, the secret ingredient of the triode sound is an earthiness, a groundedness, that is equally right for Junior Wells, Anthrax, Paganini and solo lute recitals. On vocal music, from Grand Opera to field hollers, SE triode amplifiers catch tiny paralinguistic inflections and subtle vocal shivers that convince you that you're involved in significant form of human communication with the recording artist. The musical authority of triode amps has little to do with power specifications.

In my experience, tiny SE amps do all of this neat stuff every bit as well as, if not better than, the big mama triode

Wavelength's Sole 845 SE amp uses a 300B to drive an 845 output tube for fifteen watts of sonic glory.

amps. I'll take three watts and a horn any day. Looking at the big picture, however, the rage over big triodes is perfectly understandable. First, they are definitely the hippest thing to come along in years. Secondly, aside from being the ultimate in audio machismo and peer image management, transmitting tubes provide enough power (well up into the two digits range) to drive many of the not particularly efficient speakers presently in use. A twenty-five or fifty watt amp is a practical solution for a transitional age. When forward-looking manufacturers take up the call and produce some appropriately efficient speakers, then we'll be ready to roll out the killer five watt giant slayers!

In the meantime, many US audiophiles still consider under ten watt triode amps to be toys, completely unworthy of serious consideration. What can I say? This is a completely sensible reaction, maybe the only sensible reaction based on received wisdom. It is hard to believe until you hear it with your own ears. Perhaps those big amps will lure new converts to the fold on the basis of their special appeal. Whatever it takes to bring them to party — they'll stay for the music.

