

SOUND PRACTICES · ISSUE 14 · FALL 1997

# “Choose Your Destination”

J.C. Morrison  
Blackie Box excerpt

PARALLEL SE 6L6 “BLACKIE BOX” · BLACKIE PAGANO / TUBESVILLE REFERENCE

Curated scan excerpt from the original magazine. Includes the issue cover, contents reference, the Blackie Box schematic, the article text relevant to Blackie Pagano’s amplifier, and the finished amplifier image as published.

# SOUND PRACTICES

THE JOURNAL FOR AUDIO EXPERIMENTERS

FIVE DOLLARS



Innocence and Experience

Issue 14

# Sound Practices

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## Issue #14 Contents

New Products.....	4
Choose Your Destination.....	7
<i>JC Morrison</i>	
The Feral Eye 2A3 Amplifier.....	15
<i>Herb Reichert</i>	
Get Reel: The Classic AMPEX Machines..	18
<i>Bruce Berman</i>	
Homebrewer of the month.....	25
<i>Ed Billeci of Portland, OR</i>	
The $\phi$ 42 Phono Preampfier.....	27
<i>Diego Nardi</i>	
Design of a Regulated Power Supply for a Stereo 300B Amplifier .....	36
<i>J.C. Verdier</i>	

...and much more!

Cover: The Feral Eye Amplifier  
Photo by Dave Slagle

## Age of Exploration

As living relics of a foregone industrial culture, vacuum tube electronics appear before us as the kind of equipment that you don't find in offices or hospitals anymore. Maybe a certain nostalgic character or sense of historical depth is embedded in the experience of a working tube amplifier, sensations that are simply not of our time, a primal drama of heat, light, and sound that takes you back somewhere else.

Indeed, in this day and age, a room lit by tubes is marked as a place where something very special is going on, the home of a deviant but determined choice about appropriate tools for the job. There are plenty of black sheet metal and plastic boxes that are cheaper, smaller, more efficient, easier to get, and generally more sensible appliances to own than tube audio gear. Yet, there are always the dedicated few for whom good enough isn't good enough and these exacting audio nuts more and more often go out of their way to outfit their systems with big, hot, expensive, heavy tube instruments, costs be damned.

In most of day-to-day practical life, it's hard to want to return to the old-time solutions. Everything is plastic and disposable now, but in terms of ease of use, economy, and low-impact environmental presence, there have been big improvements in consumer goods overall. Usually progress is not a very bitter pill to swallow. Why do tubes refuse to die like the dial telephone did? Why have we seen this unprecedented worldwide revitalization of a large-scale technological context that the mainstream electronics industry gave up on forty years ago?

The answer seems to exist in the realm of direct experience and aesthetics, not theoretical science and economics. There's something almost abstract in tube audio and musical illusions that makes it all worth it to those for whom it matters most. It's musical satisfaction that fuels a demand powerful enough to have given rise to a healthy second life cycle of electron tube technology and support a growing industry that branches across the globe.

Given all the new design and manufacturing going on in the tube world, it's not just "vintage trashpicking" anymore, however much fun that may be. For people with a historical bent, there are reverential reissues of super-classic pieces, made as close to the originals as possible. Other engineers push the technical performance envelope using late-model high-tech approaches where they think they can help out. Another camp gets off on using extremist parts and devices—exotic wire and parts, hyper-esoteric vacuum tubes, handmade transformers with special materials, precious metal chassis, and an alchemist's muse.

We have been in a wild state of expansion of appreciation, expertise, and diversity in the tube community over the last few years. Today, there are many ways to be red hot on hollow state and, retro to 21st century, they are all pretty cool in their own ways. Some system builders want the whole set-up as simple as possible and some insist on devising architectures of careful complexity and elaboration. Some want to own the past and others want to possess the future. You can take it wherever you want to be. The parts are out there. Make your world.

There are many logics and philosophies at play and the dynamic takes us places we have never been before. The contemporary tube audio experimenters are explorers, scientists, poets, historians, inventors, artists, inspired fools, and crazed geniuses. They're using tubes that are so old and forgotten that they're like alien debris from a flying saucer crash on the same chassis as tubes that didn't exist before this year, the kind of inventions that are impossible to predict beforehand.

We can proudly say that the vacuum tube torch bearers of our generation not only uphold the faith, they take off into a dimension far beyond anything gone before. A sense of genuine wonder has returned to the craft since the horizons have suddenly become so wide and the possibilities so vast. In the face of the yet untried and the yet unknown, we are all innocents and everything is new.



operation much less problematic than say a pair of bi-plate 2A3's. Parallel operation of vacuum tubes does NOT have to be a problem if you pay attention to the way you drive them.

The amp put out 10 watts at 5% THD, 8 watts at 1% (HP 334A). My crappy Heathkit signal generator is responsible for some of that. Obviously, this could be improved upon with a little more gain out of the first stage, mostly just for more power. But the sound of the amps was gorgeous. Very un-electronic. I brought these amps to the Philadelphia Triode Show back in the early spring, they didn't get much attention (they were auditioned briefly at the end of the day) but I was told, by those that heard them, that they were real contenders against the many 845 amps that were there. Obviously, I thought that they blew away everything except, of course, for big daddy Komuro's dc 300B (w/permalloy outputs) amps, still one of my all time favorite designs.

The next amp is a parallel single-ended 6L6GC type amp, which means that you can use any of that family, even 807's with a socket change. This amp has a good story behind it. I have a friend named Blackie, who is one of the top guitar amp technicians in NYC. He serves your favorite rockers, all of them. Anyway, we've been hanging out for some time and at one point, the topic of building an amp for his home came up. Blackie asked me, "What would be the most unpopular and out of fashion hi-fi amp I could build?" That was easy, thinks I, "A parallel SE amp with guitar tubes for output devices." So we designed it around the Western Electric 417A/5842 (again, from the cold war arsenal...) and 6L6 family. Other features include a 6BQ5 screen regulator and TV damper diode rectification (my fave...). This amp sounds so good, it continues to impress. It absolutely has enough guts to drive most real world speakers. The schematic (schemat #2) is very straightforward without tricks. Blackie built it into a lean green hammertone machine. His wife, Betty, approves and insists upon single-ended pentodes for all her serious playback.

Blackie, by the way, makes a mean guitar amp. It's a Class A PP 6550 head, with glow tube regulation for screens (dual OD3's), a trick tone section, and a unique appearance (Plexi-glass cage and bottom cover that allows you to see the regulators and his gorgeous point to point). He can be found at "Tubesville" 153 Ludlow St.

New York, NY 10002 tel. 212-529-7345.

Back to the amp, we selected the Audio Note 1.2k 50w single-ended output triodes, which turned out to be excellent performers. The power transformer and the chassis are Hammond units all purchased from Angela Instruments. The result is compact and practical. The regulated screen supply also did make a big difference in the low end performance. NOS 6L6GC's are not all that easy to track down these days, but apparently it is still possible to get 7581A's, which are the same thing. These are 35 watt dissipation tubes and you can bias them all the way up. The cathode resistors I specified are really conservative. They could be reduced to 250 ohms if you are daring and have the "GCs" (forget the Chinese 6L6's for this amp). Sovtek 5881's, as well as the rest of the 6L6 family, can also work well here but I would stick with the 390 ohm cathode resistors. Great tubes for hi-fi audio, I don't know why they have not caught on again.

Of the two amps, the "Black(ie) Box" is simpler to make and more punchy and powerful. It is a good performer with impressive measurements. The screen drive amp is more subtle and delicate, but also a bit more work. Both are solid workhorses that sound great. Betty and Blackie are hard-core daily listeners. My friend, Kato Hideki, uses the screen drive amps full-time with Tannoy monitors in his recording setup.

In closing, one of the really positive things that can be said about the hi-fi hobby is that it encourages one to pursue the hardware/software thing with a demanding attitude. "I want to love it!" Building the gear or making your own recordings is a radical statement of this, and re-involves us with the quality of the experience. Audio design is not easy and requires one to incorporate a number of seemingly contradictory forces, but really good work also needs this: an individual effort to go after the remarkable.... How do we nail this down into an approach?

In my own experience that is sort of like asking some big fat French guy to pass the potatoes, but he hears it as "Your mother turns tricks for centimes." It's just fraught with blind turns and misunderstanding. But, I do believe it amounts mostly to making the attempt, even though we know it will slip away.



Issue 14 - SOUND PRACTICES 13