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Subject: GREAT Tube Magazine

Posted by [Wayne Parham](#) on Tue, 01 Jun 2004 22:38:06 GMT

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Last week, after visiting with Eric and Charles, I ordered a subscription to Vacuum Tube Valley, the new sponsors here. Today, I found a magazine in my mailbox and I must say, I'm very impressed. Folks, this is one fine publication. Great looking photos, excellent articles both in writing style and content. The magazine is also put together nicely with quality paper and covers. I usually refer to magazines as rags, but this one is more like reference. These are keepers, destined to be kept for life right along side my 1970's Byte magazines and other collectable periodicals. One thing I like about this magazine is that it combines technical content with editorials and reviews. To tell the truth, I prefer magazines with interesting tech talk to those that are heavy in reviews and editorials. Really anyone can go on and on about their opinions, but it takes something more to discuss things like why a particular grid geometry is chosen in certain situations and things like that. The guys at VTV are capable of this kind of informative discussion, and I like that. I tended to always prefer tech-talk style magazines to review rags. You would find me completely bored with Car and Driver, for example, except to look through the great photographs. But some of the old Hot Rod magazines were just great. Sure, they have the same old articles every few years, the Holley rebuild, the intake shootout, the gears for Nine-inch Ford. But it's all pretty good information for the new guy entering the hobby. It will wet his whistle. Car and Driver is a fine magazine too, but it is really more for sitting in the dealership floor or in the dentist's office. No one really reads it. Same thing goes for electronics magazines. I'm not saying that I think one is better than the other. But I do prefer a certain style, which is a little more technical, and describes how's and why's and maybe gives a little bit of interesting history. If that's what you're looking for in a tube hi-fi periodical, I suggest you give Vacuum Tube Valley a try. It's really a great magazine.

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Subject: On a related tubey note

Posted by [Mike.e](#) on Wed, 02 Jun 2004 00:38:01 GMT

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Hi wayne, do you have the URL for that PDF regarding new ways of measuring amplifiers, superseding simple THD ? It was rather good, but I've changed PCs since! and I'm really interested in how Theory turns into reality, and how measurements don't always sound good, but sometimes :P I'm looking at simple designs, like DoZ and alternatives like mosfets, just to hear the difference. I'd like to get a SB live card for my PC, to ensure low distortion source! (integrated everything on mobos these days MUST have drawbacks!)

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Subject: Another link

Posted by [Mike.e](#) on Wed, 02 Jun 2004 01:08:58 GMT

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From our knowledge of Fourier analysis, we can be confident that the waveform tells the whole truth and nothing but the truth. 'The waveform contains no 'secret' information as to whether it was produced by a tube amp, a solid-state amp, a digital waveform generator or hundreds of sine wave generators operating in parallel, for that matter," he said. "The mathematics of Fourier assures us of this. If we can make a solid-state amp produce the same waveform as a tube amp when it clips - including duty-cycle modulation - then we have successfully simulated the tube amp with solid-state components."

Reproducing the tube amp

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Subject: A Taste of Tubes

Posted by [Wayne Parham](#) on Wed, 02 Jun 2004 15:27:42 GMT

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I can think of a dozen links that discuss various measurements and their importance. But I can't recall exactly which one you mean. Most tube enthusiasts tend to say that high amounts of low order distortion aren't annoying and they place emphasis on high order artifacts. Some get into the proportions of various harmonics and what not. Personally, I'd expect that low amounts of distortion are best. But since speakers almost always generate over 1% second-harmonic content, I can see why maybe a tube amp making 0.5% might not be really noticable. Solid state amps can bring this down to 0.001% and figures like that. As long as the amp isn't clipping, neither amp generates a lot of high orders, but when an amp is clipping, the transistor amp makes a sharp edge as the signal hits rail voltage, and that is equivalent to saying it generates multiple harmonics, including high order ones. A tube amp rounds the edges, so while the waveform produced is still artificial and distorted, it isn't quite a raspy sounding and harsh. So my suggestion is, no matter what kind of amplifier you have, don't push it into clipping. Sorry I couldn't think of the specific URL you wanted. But here's one you might enjoy:

"A Taste of Tubes"

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Subject: are ppl clipping?

Posted by [Mike.e](#) on Thu, 03 Jun 2004 05:50:07 GMT

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is that why people remark on the differences? because they ARE clipping their small valve amps?? so there is warm clipping...If they WERENT clipping and it did sound different itd really make you wonderam downloading that pdf :-)

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Subject: Re: On a related tubey note

Posted by [Adrian Mack](#) on Thu, 03 Jun 2004 12:23:20 GMT

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> Id like to get a SB live card for my pc,to ensure low distortion > source! (integrated everything on mobos thesedays MUST have > drawbacks!) Yep, well at least my onboard soundcard is a LOT worse than my SB live 5.1 sound card. The onboard sounds real dull and lifeless, and also sounds like its frequency response output is crap (it was ages ago but I think I found it had like no top end). The SB Live 5.1 is 100x better.

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Subject: So what differentiates amplifiers then?

Posted by [akhilesh](#) on Thu, 03 Jun 2004 20:07:56 GMT

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Then why do amplifiers sound different? -akhilesh

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Subject: Re: So what differentiates amplifiers then?

Posted by [Mike.e](#) on Thu, 03 Jun 2004 23:47:40 GMT

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The problem i think is,that steady state sine although music contains it and its all music is , it doesnt show the dynamics.A better way would be a-b testing etcl havent been rich enough to afford many amps,im stuck with a 2x15w a/b kitset for now ,so i cant possibly comment if amps ive heard sound different!

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Subject: My two cents

Posted by [Dean Kukral](#) on Fri, 04 Jun 2004 01:34:52 GMT

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I haven't listened to as many amps as most of you guys, but I can pretty truthfully say that I haven't heard much difference from one to another. But then, I haven't listened to them A/B nor through very high dollar speakers which might demonstrate differences better. I Have heard massive differences from one speaker to another, however. The difference between a couple of decent amps is nothing compared to the differences between speakers! I guess that is one of the reasons I get so bent out of shape reading reviews describing all the differences between speaker cables. I think that if you can actually hear a difference between two cables, then at least one of them is defective. (This assumes that they are of adequate size to carry the load.) In my opinion, for those of us building a system on limited budgets, most of our money should go into the

speakers.(This applies to home sound, not professional stage reproduction, about which I know nothing.)

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Subject: Re: My two cents

Posted by [Wayne Parham](#) on Fri, 04 Jun 2004 04:35:14 GMT

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I find there's much more difference between tube amps than between solid state amps. I expect this is because output transformers and amplifier configuration makes a big difference in frequency response, which is the most immediately noticeable quality of a sound system. It's kind of like there's a bit of EQ built-in to some tube amps, and there is more dependency or interaction with other components too. So there's more noticeable difference between tube amps than between solid state amps. Take a couple of direct coupled solid-state amps and set them up so that the output signal is 10 volts peak to peak. With the same input signal, it is pretty hard to tell a couple good units apart. But take a couple of fine tube amps and do the same thing, and you can often tell a difference right away. One will have a little more bass than the other or something. Notice I specified direct coupling for the solid-state amps and didn't mention amp configuration on the tube amps. That's a big part of this deal. Many solid-state amps are direct coupled. An exception is Class A amps which are most likely RC coupled. You'll notice some difference between an RC coupled Class A solid state amp and a direct coupled complementary-symmetry solid-state amp. I don't think it is as immediately noticeable as some of the differences in tube amps, but you can still tell. As for tube circuits, a parafeed amp is likely to be more powerful in the bass than a standard transformer coupled amp, at least if they are about the same power, size and weight. But still, these differences in tubes, configuration and output iron make noticeable differences in tube amps, and you won't generally find such differences between modern solid state hi-fi amps.

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Subject: Keepers

Posted by [DRCope](#) on Fri, 04 Jun 2004 10:33:47 GMT

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Hi Wayne, Yep, VTV is a keeper, along with the late lamented Sound Practices and Listener. Out of all the audio magazines I've subscribed to over the years, (and I've had them all!), those are the keepers. Anybody remember IAR? Remember when the editor was so afraid of being ripped off that he printed blue type on red paper so that it couldn't (at that time) be photocopied? It also couldn't be READ without monumental eye strain. A paragraph at a time was all I could manage. He stopped after one issue, I think. Get complaints much?!

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