

In 1902, Thaddeus Cahill displayed his monstrous Telharmonium – an early electronic keyboard instrument that took 10 long years to conceive and build. It was big. Very big. In fact it weighed over 200 tons and required several rail cars to transport. In short, this early ‘synth’ was comprised of oscillators made of electric alternators producing fixed frequencies. Varying its motor speed - which could be done by means of a touch-sensitive keyboard - altered the instrument’s pitch. There was also facility for tone shaping. Since amplifiers did not yet exist, this mammoth instrument would need to be listened to by purchasing a paid subscription whereby you would listen to a performance on your telephone in the privacy of your own home. Nifty. This huge piece of musical magnificence was only 2 or 3 note polyphonic (!). A decade later the diode and triode tubes resulted in the invention of amplifiers rendering the Telharmonium instantly and utterly obsolete.

Sound familiar? Maybe Cahill could have swung by a pawnshop and hocked it for a few bucks claiming he’d just bought it and it was “still really cool. No... *Really*” The point being made here is simple. That nagging feeling you get about a year after purchasing a new piece of gear is a universal constant. Well, ok, an industry constant.

Technology, Art, and obsolescence are ultimately fused together in some way, but how exactly? The invention of the pianoforte around 1700 pretty much rendered the harpsichord ‘obsolete’ overnight by allowing for greater touch response and richer sound. Was harpsichord or clavichord music suddenly useless? No, but it did fall out of style, leaving keyboard players with powdered wigs scrambling to learn the new technology to keep up the payments on their snuff habit. This technology allowed for the transition from the stepped dynamics of the music of the Baroque period to the graded dynamics of the Classical period. Later innovations in all instruments allowed for the even greater dynamic range of the Romantic period. However, maybe I have that wrong. Does technology allow for these advancements in Art to be conceived, or does artistic vision indeed demand technological advancement? You may recall that for instance, early sci-fi writers conceived of lasers and ‘death rays’ long before science fact, giving scientists their cue. I would suggest that these issues do not exist independently, and that Man’s constant search for something newer, better, and more efficient or expressive transcends and straddles both Art and technology. Both of these human endeavours have a way of advancing by standing on the shoulders of predecessor giants.

Unfortunately, one man’s “advancement” is another man’s “geez I knew I should’ve waited another 3 months to buy my gear”. It is a sad fact of life that our gear while a musical investment, is very rarely if ever a monetary investment. In truth – and I know this is a cliché – there are no bad instruments, just uncreative people. Music technology is only the master when we are *already* the slaves to our own expectations about what an instrument can or should do.

The thorn in the side of this thesis is a phenomenon that is also not that recent - the constant reaching back for the familiar amidst the new, and unknowns. Nostalgia. It is another constant in music. Most recently, we can see this in the form of a wave of neo-retroisms in technology. Amongst digital synths and recorders we see analog synths and tube preamp plugins meant to emulate the sound of the past. You have to admit, it’s pretty ironic to abandon a tape-based studio in order to move to a computer-based DAW system only to get the fastest CPU you can get so that you can run multiple instances of these types of things. Yet, this is a good thing. It allows us to pick and choose the best of different technologies in order to move forward instead of blindly assuming that ‘new’ equals ‘better’. It is healthy.

Arnold Schoenberg said famously when talking about his serialist compositions and the supposed ‘obsolescence’ of tonal music that, “there is still much good music left to be written in C” - referring to the key of C. That statement has proven both ironic and prophetic really. Ironic, because not many people today even know about 12-tone composition – a 20<sup>th</sup> Century ‘modernist’ compositional technique that is today anything but ‘modern.’ – let alone the fellow who wrote such music. Prophetic, because tonal music is alive and well thank you, though in a modified and evolved form. Schoenberg was quite right of course, though today he might say, “...left to be written in C++”

We will talk more of this next time around...

*Graham Collins is an Ottawa composer/synthesist currently producing an instructional DVD on synthesis. His website is [www.pongthrob.com](http://www.pongthrob.com), and he can be reached at [graham@pongthrob.com](mailto:graham@pongthrob.com)*