

Alan Cross on the Science of Rock 'n' Roll

Broadcaster and rock geek Alan Cross was tapped to curate a brand-new exhibit opening at the Ontario Science Centre this month.



CARLOS OSORIO / TORONTO STAR

Alan Cross plays bass at the Science of Rock 'n' Roll, an exhibition he curated at the Ontario Science Centre, opening June 11.

By: [Zoe McKnight](#) Staff Reporter, Published on Sat Jun 07 2014

Alan Cross had just three months to consider the winding history of rock 'n' roll over the decades, pinpointing the exact moments of transformation.

The broadcaster best known for his now-defunct *Ongoing History of New Music* program was asked to help curate “[The Science of Rock 'n' Roll](#)” exhibition, opening June 11 at the Ontario Science Centre.

He's one of the few people who could pull it off, having hosted 691 episodes of the long-form radio show since 1993 before it went off the air in 2011.

Cross now produces the *Secret History of Rock*, which airs across Canada, and he's affiliated with local radio station Indie 88.

The self-proclaimed music nerd reached back into that institutional memory, as well as his own music and research library, to curate a sprawling new exhibit. It has traveled through Kansas City, Detroit and Oklahoma City as “beta tests” for the Toronto opening.

From the transistor radio (1954) to the fuzz pedal (1961) to Napster (1999), the exhibit, launched by local company [Elevation Productions](#), revolves around the innovations that formed the shape of rock — and pop, and hip-hop — to come.

Cross points out the patterns that arose over the years. Transistor radios of the baby boomer

generation helped create teenage culture and gave rise to the all-powerful DJ. More recently, digital file-sharing helped create the explosion of indie culture and, later, streaming services that curate playlists for busy listeners.

“It’s a bit of a back to the future situation,” Cross says. “It’s the same thing, just a lot more advanced.”

Happy accidents have led to some of the most recognizable sounds of modern music. For example, the “fuzz” distortion effect so ubiquitous in rock music was created when [session musician Grady Martin](#) plugged his guitar into a faulty mixing board when recording a song in 1961.

“That began to change everything. Now you have this distortion pedal, which sounds angry and powerful, and then think of all the music that came after that,” Cross said, citing The Who, Cream and Jimi Hendrix as early adopters who went on to define the sound of the era.

When the Rolling Stones used fuzz on “(I Can’t Get No) Satisfaction” in 1965, the brand-new [Gibson Maestro Fuzz-tone pedal](#) sold out everywhere.

Similarly, when drum store owner Jim Marshall — who later called himself the “father of loud” — was approached by UK guitarists to develop a better, cheaper amp than what was available at the time, he couldn’t have imagined the ripple effect of the [JTM45 model](#) he came up with.

“Now they had these giant things that not only pumped out a lot of power and created lots of distortion, but also looked awesome. Just the look of this technology affected the way the music was written, performed and perceived.” Bigger amps meant bigger venues, bigger crowds, bigger sales and bigger swagger.

Science centre visitors can take a chronological tour through rock history, hear the difference between stereo vs. mono recordings, learn basic music theory, how math influences the strings of the guitar and why a “hook” is important. Several interactive displays demonstrate how harmony and melody create songs and just what a roadie does on tour.

But the focus is on how technology has shaped popular music. One of greatest music-industry ruptures was started, it’s clear in hindsight, by CD-ROMs, which at first contained nothing more exciting than software or encyclopedias. Then compact disc drives appeared in personal computers, and users realized entire discographies could be uploaded and shared on this thing called the Internet. Enter Napster, which quickly changed the way we listen to music.

Despite his encyclopedic knowledge of classic rock, Cross doesn’t come across as nostalgic.

He remembers hearing “Smells Like Teen Spirit” by Nirvana for the first time and realizing big changes were afoot. And he remembers hearing “Wannabe” by the Spice Girls just five years later and recognizing the end of the era. Now involved with [streaming service Songza](#), part of a new wave of tech that could reinvent both radio and downloads, Cross is pragmatic about the future of rock.

“The point is not to make value judgments here but to understand the mechanisms. If you understand the technological mechanisms of how music is created, distributed, consumed and valued, then you begin to understand why you’re hearing the music that you hear. And then you can perhaps make a semi-educated guess at where it might be going.”

Evidently the “ongoing history” of music is still being written. Consider the new [real-time Billboard chart](#) that shows what music is trending on Twitter, and apps like Shazam that can tell you the top song that users are investigating at that moment in any city in North America.

Cross says these innovations are not scary, but fascinating. “This is science fiction!”

The Science of Rock ‘n’ Roll opens on June 11 and runs until Oct. 26. Regular Ontario Science Centre admission applies: \$22 for adults and \$16 for youth. There are also three adults-only nights in July, August and September: \$15 advance, \$18 at the door.