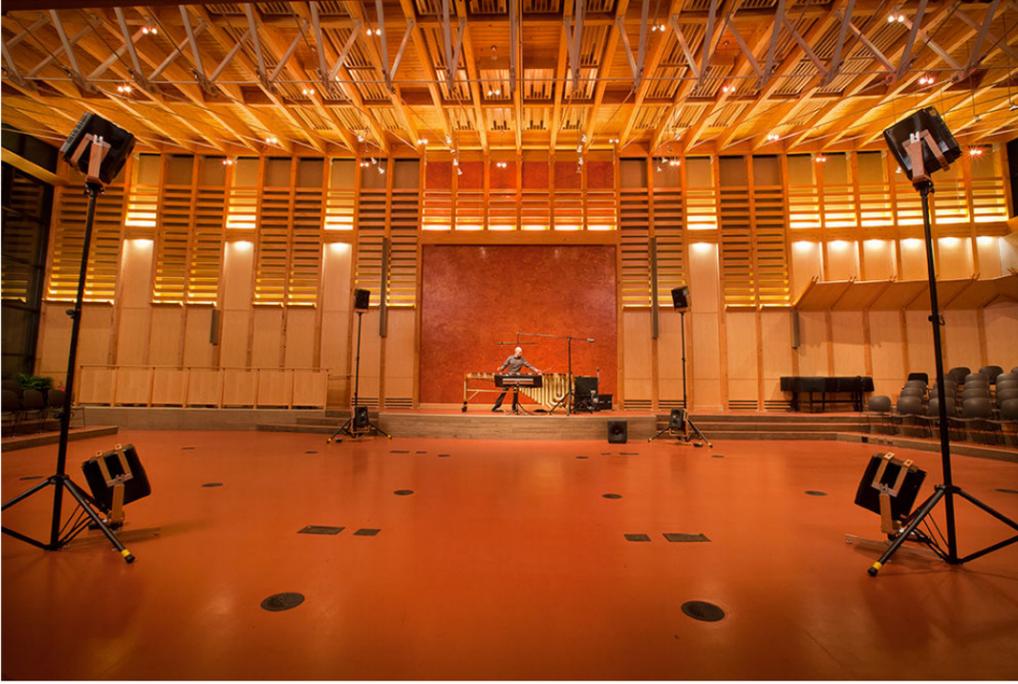


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## Sound ideas: Tech and the West on computers and music

Michael Abatemarco Jul 21, 2017



Composer Nathaniel Bartlett setting up; photo Eric Tadsen, courtesy Bartlett

The term “innovation” gets bandied about so often in the creative fields that it seems in danger of losing all meaning. But true innovation is defined by its lasting impact on art forms, whether in visual or performing arts.

Throughout the 20th century, but particularly in the latter half, analog processes found unexpected applications among composers and performing artists who conceived of using technology in unintended ways. Artist Steina Vasulka’s 1970-1978 *Violin Power*, for instance, used scan lines of a television set’s cathode ray tube to render the sounds of a violin visible to the eye. The kind of ingenuity she applied to *Violin Power* is among the reasons she’s regarded as a pioneering video artist today.

“A lot of the technology people used in their music wasn’t originally created specifically for people to do artistic projects but was looked at as a generic tool. Once a body of work is created, it can feed back into the technology,” said composer Nathaniel Bartlett, one of several presenters at Tech and the West, a two-day symposium hosted by the New Mexico History Museum that is meant to coincide with the Saturday, July 22, premiere of composer Mason Bates and librettist Mark Campbell’s work *The (R)evolution of Steve Jobs* at Santa Fe Opera. The symposium is presented by SFO, Los Alamos Historical Society, the Santa Fe Institute, and the Thoma Foundation in partnership with the museum, and is a two-year initiative in conjunction with both *(R)evolution* and the opera’s 2018 production of John Adams’ *Doctor Atomic*, about Robert Oppenheimer. Bartlett, who performs a repertoire of compositions for marimba and marimba plus electronics, addresses the topic “Concert Music and the Personal Computer Revolution” on Friday, July 21. “There will be much more listening to music than there will be talking,” he said. “It’s really more of a concert than a discussion.”

Bartlett’s performance is at 3 p.m., following television producer Stewart Cheifet’s 2 p.m. opening address. The symposium includes discussions by composers John Corigliano and Mark Adamo (4:15 p.m. July 21); and art

historian John Hanhardt in conversation with Steina and video artist Beryl Korot (11:15 a.m. July 22), both of whom have new media work in the Thoma's collection of contemporary digital and electronic art, currently on view at the foundation's local gallery Art House (231 Delgado St.). Bartlett returns on Saturday at 2 p.m. as part of a panel on creative expression that includes psychologist Dorella Bond and designer Leah Buechley, and is moderated by the New Mexico History Museum's director Andrew Wulf.

Bartlett, who is from Madison, Wisconsin, built his first studio, called Sound-Space Audio Lab, there in 2010. After recording four albums in Madison, he and his wife moved to Placitas, relocating the studio which was designed to accommodate his evolving modular musical apparatus: a mobile concoction of digital and analog equipment. "I had been living in Placitas for the last three years, but I just moved back to Wisconsin in May," he said. "My wife also grew up here, so we have a lot of family here."

Bartlett's performances are immersive experiences. Using surround sound, which he refers to more often as "spatialized sound," he aims to provide audiences with a richer, fuller listening experience. A typical performance places the listener in the center of a percussive set-up. For his presentation, he performs a repertoire of compositions that includes analog processes, written before digital applications and computer hardware for composers were widely available, in addition to more recent digital works. "It was really kind of a novel thing," Bartlett said. "Now it's ubiquitous, and it's easy to forget how big of a deal it was for composers to have access to these electronic resources. I'm linking that to the work of Steve Jobs. In the late '80s, when he got ousted from Apple, he went on to form NeXT, which was another computer company. Without getting bogged down in the details, they created some computers that were widely used by academic composers."

The use of NeXT computers impacted the world of concert music, the realm that Bartlett chose to focus on in his presentation. He leads with an excerpt from *Gesang der Jünglinge* by Karlheinz Stockhausen, tracing the evolution from analog electronic music to digital through the subsequent pieces he performs. After Stockhausen, he presents a short excerpt from *Sidewinder, Part 2* by Morton Subotnick. "He actually used to live in Santa Fe for a while," said Bartlett. "The piece is from 1971 and uses an analog synthesizer." Two pieces from the 1990s follow: Hans Tutschku's *Sieben Stufen* from 1995 and *Word Color* by composer Paul Lansky from 1992, both made with NeXT computers and incorporating computer-generated sounds. The final piece is a composition of Bartlett's own called *NEXT\_APEX\_SF*, which is performed with live marimba and real-time computer synthesis courtesy of a Linux operating system. "I'm hoping that the two pieces from the '90s will be heard in contrast to what happened prior to computers in music and then in comparison with something brand new," he said. "Only one of the pieces is in stereo and everything else is in four or eight channels. It's an opportunity for an audience to hear spatial music, which is generally not presented very often."

Like a true innovator, Bartlett arrived at his current digital musical notion format by necessity. Being short of a page turner, and playing an instrument that requires that he hold a mallet in each hand, added unnecessary challenges to playing marimba. With monitors in place and

scores that now exist as pixels on a screen, rather than as pen-and-ink notations, he could develop algorithms that opened the door for the creation of unrehearsed and unscripted sounds. “I can have the computer be actively involved,” he said. “For example, I can say, ‘Computer, when you hear me play three notes over a certain volume level within a span of 10 seconds, display this fragment of music or this group of pitches’ — something to that effect. It combines the rigor of composing in advance with the flexibility of improvisation. I feel like I’ve been able to achieve a good balance between them for the work I want to do.”

## details

Tech and the West

2-5 p.m. Friday, July 21, and 10 a.m.-4:30 p.m. Saturday, July 22

New Mexico History Museum Auditorium, 113 Lincoln Ave.

\$95 for both days; \$50 for either day; [www.santafeopera.org/symposium-registration](http://www.santafeopera.org/symposium-registration); for more information, call 505-946-2417

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### Mason Bates and the iOpera: "The (R)evolution of Steve Jobs"

On a Friday afternoon in June, the cast rehearsal taking place at Gaddes Hall on the Santa Fe Opera campus is decidedly low-tech. An acoustic piano supports the naturally amplified singers in the small open-air amphitheater, and the sun alone provides a spotlight. This could be mistaken for a rehearsal leading up to SFO’s first season, rather than its 61st. Until composer Mason Bates begins triggering audio effects on his MacBook. > [READ STORY](#)

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Menez, who spent 15 years photographing the computer-tech world of Jobs, Bill Gates, and other innovators, has been speaking around the world about his experiences and emphasizing that people need to track what’s going on in the digital realm. He spoke to *Pasatiempo* from his home in New York State. > [READ STORY](#)

