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Nathan Van Der Rest interviews Moldover
writing for Focal Press, "Modern MIDI"

1. What do you feel is the the greatest strength of MIDI?

It's ubiquitous presence in digital musical instruments made in the last 30 years.

2. What do you feel is MIDI's largest weakness?

In common implementation it still suffers from some antiquated features. Those features made it practical and popular 30 years ago, but now they cause inconvenience, such as the 7-bit continuous controller standard.

3. What inspired you to begin creating your own innovative controllers?

I started performing professionally as a controllerist around 2004. At that time there was a huge gap in the controller market. There were cheap instruments based on legacy musical interfaces, like the old Oxygen 8 keyboard, and expensive instruments offering futuristic musical interfaces like the Haken Continuum. As an independent musician living in New York City I couldn't afford single instruments that cost thousands of dollars. I started buying the cheap ones to combine and modify in new ways to get what I wanted. By 2007, my needs for the instrument had grown beyond what I could do with modification, and I began designing custom controllers.

4. Do you ever use standard controllers in the studio or just the ones you have built?

I use several standard controllers in my studio, but more-so for the legacy interfaces (keyboards and drum pads).

5. Can you tell us a bit about your Mojo controller as well as your jam boxes like the Mini-Masher and Octo-Masher and what you set out to create with them?

The Mojo is the third generation physical interface for a sample-manipulation and dub-mixing instrument. The software began in early versions of Ableton, was augmented by many custom Reaktor patches, and now includes a variety of Max4Live and 3rd-party VST devices. The Mojo's physical design can be described as a hybrid of a DJ mixer, a keyboard, and a gaming controller. It has an ergonomic layout based on a pair of human hands as they would lay on a flat surface. It utilizes a wide variety of sensors chosen for different expressive gestures and tactile differentiation. It is constructed with high-quality, easily replaceable parts.

Since 2005 I have been creating multiplayer musical instruments commonly referred to as jamboxes. These create the social music experiences I don't normally get on stage, and act as a counterpoint to my work as a solo performer. In creating a jambox, I apply my knowledge of performance instrument design to the very different context of group human interaction. The result is not an elegant and polished piece of musical engineering like The Mojo, but the experience of making music with this instrument and a group of people at the same time is nothing short of phenomenal. Now that controllerism is a commonly practiced art, and I'm turning my energies to evangelizing jamboxes, it's only a matter of a few years before interest in them explodes, and a new niche is carved in the musical landscape.

6. Do you only use Ableton or do you integrate other DAWs as well?

I don't consider Ableton Live a DAW. It was designed as a live performance instrument, not an "audio workstation". I believe this is one of the primary secrets to its success in the broader category of music software, and the reason so many people wish to use it in the studio as one would use a conventional workstation. I use Live for live performance, and Steinberg's Cubase for studio production.

7. Have you incorporated OSC at all into your live or studio setups?

I have used OSC for brief periods with instruments like the Jazz Mutant Lemur, Reaktor, and the TouchOSC app for iOS. I have not used it extensively.

8. Do you believe MIDI will be replaced by OSC (or another protocol) in the future?

All things change, and I imagine music-makers touring the stars will probably not use MIDI as much as I do. Perhaps a good parallel is musical notation. I haven't used notation much at all in the last ten years, largely because of my fascination with music technology. MIDI sequencing and digital audio recording have replaced my need for such a thing, however plenty of people on the planet are still making music with notation every day. Just the same, I think MIDI will be around for a long time. Most music is and will be made up of sounds which we might call "notes" and "beats", which we might draw as a dot on a piece of staff paper, or encode as MIDI messages. Just because we have new instruments and extended musical vocabularies to explore those things, doesn't mean we need a whole new system for communicating our musical ideas.