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Live Looping Lives

LEARN HOW TO PLAY WITH YOURSELF

BY NORMAN WEINBERG

Many musicians balance creatively on that fine line between live and sequenced performance. Some play an acoustic drum kit and fire sampled sounds, phrases, or loops from strategically placed pads or highly sophisticated multipad rigs. But others prefer to create new musical compositions using “on-the-

fly” DJing of individual pre-recorded loops. In either case, previously sampled or recorded material is a key factor.

Now consider live loopers (the people). They start with absolutely nothing and construct compositions from the ground up in real time, layer by layer, to produce amazing combinations of musical colors. Loopers work in every

musical style, from the most banal pop to experimental to classical – and everything in between.

If you're not familiar with the process of live looping, here's a quick overview. Using some sort of mechanical device (in the early days, it was a tape recorder; now it's dedicated hardware or software), a performer records a part in real time and then immediately loops the playback of the recording so that it repeats over and over. Once the first loop begins cycling, the performer layers another loop on top of it to create a second part, and then a third part over the first two, and so on – in essence using a multitrack performance technique in real

“Almost every single drumming looper I know has become a multi-instrumentalist in the process” – RICK WALKER

time. Depending on the sophistication of the looping device, the performer can synchronize the tracks, bring individual tracks in and out of the mix, play tracks backward, speed them up, slow them down, apply effects, or put the audio through a number of other manipulations to make the creation more unusual.

It's a whole new world of possibilities, and this article will cover the instruments, hardware, software, and artistic approach of two very different looping artists: Rick Walker and Kid Beyond.

THE INSTRUMENTS (OR NOT)

Loopers prefer to work with looping rigs because the end result is often more organic than what you get with synthesizers and sequencing software. In most live looping scenarios, performers start with acoustic sounds rather than synthetic ones, although this isn't always the case. In some circumstances – especially when dealing with software looping programs – your creation can contain a mixture of acoustically recorded loops along with MIDI sequences. Since live loops aren't rhythmically quantized, the rhythms and grooves possess a more human feel.

Skill level almost doesn't matter. If you only play percussion, you can integrate a variety of instruments to create tones and textures that focus on rhythmic ideas. You can even manipulate some of the rhythms to create melodic passages. If you sing, you can create loops on the fly and then float your voice over the top. And multi-instrumentalists can use their full range of talents to develop compositions that feature an orchestra of instruments.

A talented multi-instrumentalist performing with both traditional found-sound and newly invented instruments, Rick

Walker has adopted live looping as his main means of expression. “The more I went on, the more I wanted [other sounds] to be part of what I was doing,” he says. “I wanted to produce more atmospheric kinds of loops that were originally made with samplers. So I started using my voice, singing through tubes, playing things through tubes, Velcroing keys down on keyboards to create drones, and other experiments and investigations into sound.

“I started aggressively learning as many different melodic instruments as I could – I'm still doing that to this day. About every three months I pick up a brand-new instrument that I've never played and see if I can get something out of it. Almost every single drumming looper I know has become a multi-instrumentalist in the process. It liberates you to move over and play things that are more than just rhythmic.”

Kid Beyond is a different breed of looper. His only instrument is his voice. “I have a drum kit in my head,” he explains. “It's got a number of different instruments: a few different kinds of snares, kicks, hi-hats, crashes, maybe a turntable off to my left side when I need it, a number of Latin and African percussion instruments, and occasionally a gong behind me like Mötley Crüe.” But Beyond's “kit” has more than just acoustic percussion – he also creates the sounds of drum machines and early analog synths. “One of the advantages of being a vocal percussionist is that I can switch to different kits and different sounds instantaneously,” he boasts.

Beyond's performances are a unique experience. He stands alone on stage with a microphone and a pedal board. His laptop is off to the side (though you'd never guess that he was actually using it). “I've been beatboxing and singing my



Rick Walker sees what happens next

whole life," he says. "I've been doing solo performances as a live looper for about three and a half years. Before that time I sang with some bands and 'boxed with some bands. I had this idea percolating in the back of my head to create a solo project."

And so he did, and in the process incorporated his prodigious skills as a vocalist, as well as other myriad talents. "I write songs, I sing, I beat-box," he explains. "I do all the different instruments, and I also produce. I was looking for a way that I could combine all of this. I'm also a total computer geek and have been since I was a kid."

QUESTION OF STYLE

Walker's music is nearly all improvised. "I've been obsessed with the notion of the constraint of randomness," he says.

"I haven't performed a rehearsed set piece in over seven years, other than recording sessions and touring behind people. In my own shows, everything that I've done recently has been totally improvisational, but within certain constraints."

Before a gig Walker selects a group of instruments. Instead of writing a song list, he maps out combinations of instruments to use on each piece, and then goes on stage without any preconceived notions. "That can be dangerous and scary," he admits. "It means you're not always *on*. But it also means that some very special things can happen. It's as much about listening as it is about conceiving things to play. I'm listening to what's being played and thinking about what my response will be to that."

Beyond's methodology is

considerably more methodical. "I wanted to approach this from a songwriter standpoint," he explains. "I'm really a singer/songwriter, but my instrument is my voice. I made a conscious choice to do songs. I really wanted to try multitracking myself, which is one of the reasons why I chose Ableton Live and a computer setup rather than a hardware looper [the machines]. I wanted to be able to manipulate individual tracks and put different effects on each of the tracks and take tracks in and out."

Since Beyond actually plays compositions, his music is a little more sophisticated and cleanly organized. "Really, it's what suits the song and the live arrangement of the song," he says. "I'm arranging an actual song, so if I spent five minutes at the top of each song getting all my loops up

and running, that would start to bore people.

"This shapes and restricts how many loops I can do and what the arrangement is like. It's an interesting process. I have about a minute at the most before the top of verse one will drop. It may start with some bass, some rhythm section, and some melodic stuff. And sometimes, depending on the composition, I'll start singing over that, and then I can put another part in between chorus one and the second verse. The live arrangement of the song definitely determines how the song turns out."

TOOLS FOR TIMING

Working with loopers has strengthened Walker's sensitivity to the subtle nuances of time, feel, and groove. "I've been fortunate to play with



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many musicians from around the world," he says. "When you play with someone from Algeria, they have a different feel in the way they might play sixteenth-notes. Each time you learn a new paradigm in ethnic music, you learn how to make these adjustments to sound authentic. I learned a tremendous amount about moving off of the perfect metronomic approach to rhythm by playing with all of these great musicians. But I'll tell you, I've learned ten times as much about rhythm and time by working with loopers than I have with all of these experiences combined."

A looper is also a great tool for individual practice. Percussionist, composer, and vibraphone artist John Best has been working with loops and delays for his own rhythmic development, as well as that of his stu-

"My instrument is my voice. I made a conscious choice to do songs." — KID BEYOND

dents, for several years. When you play along to yourself, it's blatantly obvious if you start to rush, drag, or wobble in your rhythm, time, or dynamic control. "The beauty of using loops," Best says, "is that it creates an environment in which you are playing on top of your own sound. This strengthens ensemble and timing skills as well as giving you feedback about elements of your own performance like a recording. And all of this happens in real time. No other tool can give you this type of practice experience."

GEAR GAB

Walker prefers hardware. He has two Line 6 DL4 Modeling Delays on the ground, an A/B box, an intelligent pitch shifter, a rhythmically controlled tremolo device, and a Looperlative LP-1 with an Electrix Repeater in a rack. He also uses an M-Audio Trigger Finger, a Roland Pad 80, and a WX5 Wind Controller. His Gibson Echoplex "is one of the most archaic loopers that I own, but the looping software inside the unit is the most sophisticated device for slicing, dicing, and rearranging."

Kid Beyond prefers software, and uses Ableton's Live as the main workhorse of his rig. He explains, "Now I'm using a Mac and a combination of MIDIPipe and QuicKeys software. QuicKeys is a macro program. I use it mostly to be able to switch from one song to another. Each one of my songs is a separate file in Live, and there is a corresponding file in MIDIPipe. MIDIPipe allows you to take in MIDI events and do all sorts of things to them. One of the things that it can do is trigger a little Applescript that can say, 'On this button push, send this series of commands to Live.'" Beyond's pedal board is the Voodoo Lab Ground Control Pro. "It's built like a tank, and can withstand just about anything. It's very easy to program, although I do most of my pro-

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gramming in the software rather than in the pedal.”

HARDWARE LOOPERS

Looping hardware comes in a variety of styles at just about every price point. On the low end of the spectrum is the Boss RC-20XL Loop Station (you can find the first-generation version, the RC-20, on eBay for around \$100). Even though this machine is part of Boss' guitar effects line, it's certainly not limited to guitarists. In fact, a large number of loopers credit this device as their first love in the looping experience. While you may eventually move onto a classier model, the 20 is a great way to get your loops on.

The RC-20XL has both an instrument and a line-level input that can be used at the same time. It has the ability to



Kid Beyond captivates the crowd

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hold up to 11 loops that total 16 minutes of sample time, and can play loops or one-shot events forward or backward. The inclusion of an aux-input lets you make recordings of music from your CD player or iPod.

Another entry-level machine is the Digitech JamMan. Developed nearly 20 years ago, the JamMan has been the tool of choice for many live loopers who cut their teeth on hardware. Today's version uses CompactFlash memory to store as much as 6.5 hours of data on a 2GB card. One of the hippest features of the new JamMan is the USB port, which allows you to easily dump killer loops into your computer's hard drive.

A step above the RC-20XL and the Digitech is the Boss RC-50. This unit has seven foot pedals for more real-time control of three discrete record-

Check out some of the smaller software publishers that are producing sophisticated programs for the audio connoisseur

ing tracks, each of which is capable of multiple overdubs. Designed more for the professional rather than the amateur, the '50s microphone input is XLR-style, complete with phantom power. All inputs and outputs are stereo, and the unit can hold nearly 25 minutes of stereo samples. A full complement of synchronization tools helps the 50 stay tight with other MIDI modules, sequencers, or lighting systems. This is a great middle-ground machine that would serve well for the majority of looping ex-

periences live or in the studio.

On the higher end of things, the Looperlative LP-1, with its eight individual tracks and three sets of stereo outputs, has been described as the Cadillac of loopers. Each of the tracks can be synchronized or have their own time and tempo identity. Once tracks are recorded, they can be muted, reversed, scrambled, bounced to new tracks, or manipulated in a number of different ways. A unique feature is the Ethernet port in the back of the box. Once you plug the unit into

your computer, the software inside the box jumps on the net, goes to the Looperlative web site, finds and downloads the updates, and installs them. In essence, your machine's got new features as soon as they are designed and built into the operating software. How cool is that?

SOFTWARE LOOPERS

As it is in hardware, so it is in software. There are a large number of programs that can be used for live looping. One advantage of working with software programs is that many of the manufacturers offer free demo versions. You can download a demo, try it out, and see how it fits your operating and musical style.

If you're searching for a free shareware program, try AmbiLoop. A Windows-only program, AmbiLoop supports up

AUTOMATING THE MIX

BY JIM AIKIN

Studio trickery can seldom turn a bad recording into a good one, but there are lots of ways to make a good recording sound better. No matter how clean, tight, or exciting the basic tracks are, almost any session will benefit from a little extra polish. Computer-based recorders like Pro Tools, Sonar, and Cubase provide dozens of tools with which you can clean up a mix, such as overdubbing, equalization, and so on, but one of the most important tools is automation.

Automation is the process of making changes in various settings during the course of a song, and recording those changes so that they'll happen automatically each time the song is played. In a modern DAW (digital audio

recorder), almost any track parameter can be automated.

The most obvious thing to automate is track level. Engineers will often raise the level of the guitar track during the guitar solo, for instance, and then drop the level back at the end of the solo. A multitrack mix may have dozens of level changes like this during the course of a five-minute song. Automating the track mute button can also eliminate extraneous noises, such as a singer clearing her throat before the start of the verse. And automating the panning of various tracks can change the stereo image of the mix.

Plug-in effects also offer potent possibilities for automation. You might want to increase the reverb time and output level dramatically

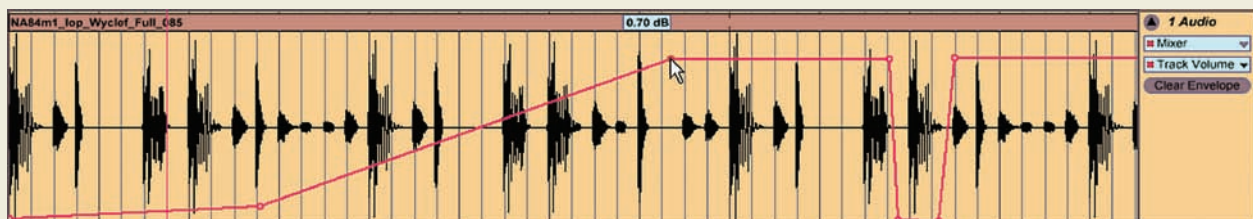
to introduce a cavernous echo at the end of a section, or add a phaser effect to an electric piano track at the beginning of the bridge and then switch the phaser off at the end of it.

Two common ways of creating automation data are moving fader automation and automation envelopes. Some DAWs offer a combination of the two, but the musical results are pretty much the same either way. Many DAWs take advantage of the computer's graphics by letting you create and edit automation envelopes. Depending on the software, you may be able to draw a complex envelope with a pencil tool or click on envelope breakpoints and drag them up, down, left, or right.

Moving fader automation is the more traditional method. To record automation data, you may put a track in a special mode (such as the Write mode in Cubase). Then, while the music plays, move the track's controls with the mouse. On playback, you'll see the on-screen knobs and faders recreating your moves. If you don't like what you hear, just punch in on the automation data and re-record some or all of it.

A hardware control surface offers an extension of the moving fader idea. These boxes may have eight or sixteen faders, or even more. Each fader is linked to an on-screen parameter, and you can record many automation moves at once by pushing the faders up and down. If the control surface has motorized faders, they'll physically move as the song plays back. It's like magic, as long as the mix works.

An automation envelope in Ableton Live appears as a red line over the waveform. Here I've programmed a fade-in at the beginning of the audio, and the quick dip in the right half of the image is used to cut out a single drum sound to make room in the mix for a foreground element on another track. The envelope's breakpoints are shown as circles. When the mouse is over a breakpoint, a pop-up shows the value of the envelope at that point. In this track I've selected the Track Volume envelope using the drop-down menus in the track header (at right). Live allows only one type of automation envelope to be displayed for a track at any given time.



to eight simultaneous tracks that can be played back at normal speed, half speed, reverse, and/or with filters. It also has the ability of mixing down tracks to a new track, thus offering the potential of unlimited tracks. It's a good software version of a hardware looper.

Popular looping software can do many other things as well. Sony Creative Software's Acid Pro 6 combines the best of several worlds with loop-based sequencing, live multitrack recording, and full MIDI implementation. No longer just a looping paradigm, Acid is a full-featured music production workstation that's at home on the stage or in the studio.

Ableton's Live 6, as the name implies, was designed for live performance. Its ability to combine and organize an unlimited number of tracks containing loops, one-shots, MIDI files, and multitrack audio is second to none. Each track can have its own processing for an almost infinite number of possibilities, from included effects to third-party plug-ins. It's Kid Beyond's main machine.

For the more adventurous among you, check out some of the smaller software publishers that are producing sophisticated programs for the audio connoisseur. Used by many experienced musical technologists, AudioMulch incorporates a series of "contraptions" that include signal generators, effects, filters, and a number of mixing elements that can all be applied to the loops. This software isn't for the faint of heart, but it's a powerful tool.

One of the more interesting programs is called Kenaxis. With its selection of file modifiers, it can produce textures and colors that can turn your live loops into an otherworldly soundscape with a few clicks of the mouse or a couple of MIDI messages.

NOW GET GOING

So there you have it: two viewpoints of the live looping experience from unique individuals using totally different tools and techniques. By now you've gotten some ideas as to how you might use live looping in your performances. Live looping can take your performances to an entirely new place. It's time to put your own creative stamp on this technique. ■

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