



LOOP GURU

BY DAVID TORN

"Looping" refers to the technique of recording sounds and replaying them in repeating cycles. In the old days this was done by literally making a loop by splicing together the ends of a length of magnetic tape. Nowadays musicians usually do it electronically with samplers or specialized digital delay devices like the Lexicon Jam Man, Oberheim Echoplex or Electro-Harmonix 16-Second Delay. Cer-

DAVID
TORN
DECODES
THE ART OF
ELECTRONIC
LOOPING

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tain guitarists have made looping a cornerstone of their styles—consider the groundbreaking tape textures that Robert Fripp crafted and dubbed “Frippertronics,” or some of the brilliant excursions that Bill Frisell has launched from an off-the-cuff loop. But few if any players have explored the art of looping more deeply or evocatively than David Torn. He agreed to share his insights into a technique that is no mere effect, but a vast textural and compositional tool. —Editor

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I’m a guitarist first and foremost, but my attempts to create singularly expressive music have also made me see myself as a loopist and texturalist. Unlike standard time-based effects such as chorusing, flanging and doubling, looping can be seen as a new instrument, one capable of transforming and amping up the most personal nuances of one’s guitar playing.

While some guitarists seem mystified by the concept and practice of looping, I’ve found it to be about as esoteric as using a Marshall stack and a wah—i.e., not very. For those plagued by misconceptions about looping and its attendant techniques, I offer the following questions and answers.

So, uh, why should I try looping?

1) Since looping requires sonic input and you already play one of the most expressive instruments ever developed, you’re more than halfway through the learning curve.

2) Looping seems to engender a valuable reflective quality in the players who employ it, either from a meditative or a “musical self-study” perspective. As in multitrack recording, you get to stop and listen to what you’ve performed and then respond to it. But it’s instantaneous and almost infinitely mutable.

3) Many guitarists have a desire to orchestrate guitars as well as play them, and looping meets a bit of that need. For example, you know that little bell-like thing you do on your Strat-type guitar, picking the G-string above the nut while lightly wiggling the whammy bar? You know how it always bugs you that you never get to make quite enough of that potential psychopathic chorus of nastybells? Fire it up and loop it! Looping can open the stage door to your phantom orchestra hall wherein the tiniest details of your playing can become jumping-

off points for fresh sonic mayhem (or order).

4) It’s like adding other players, except they play exactly what you want them to play. Added bonus: You can lose that overly busy keyboardist with those canned sounds.

5) You may find you’re no longer merely a guitarist, but a multi-instrumentalist. This may provide motivational feedback while you plumb the depths of a world that so loudly lauds the most exceptionally mediocre guitarists. It might also suggest a couple of new ways to earn a living in this increasingly dog-eat-dog biz.

I’m not into effects or ambient music.

1) Looping isn’t an effect—it’s your playing, only more of it. If you hang with it, you’ll uncover previously hidden facets of your music.

2) Ambient, schmambient (not necessarily somnambulant). You can make *molto* ignorant loops that are the most ass-kicking, boot-bloodying, anti-matter-eating motherfuckers this side of the other side of the thing, even when the thing seems round. So there.

3) Guitar loops *do* happen to be great for ambient music, and they can be far more animated and humanistic than your typical synth pad.

My favorite gear. Since I think of looping as live, spontaneous multitrack recording within a limited time frame, I view it as separate from my more normal (abnormal?) guitar playing. It’s possible—and often desirable—to mix both loopage and guitar in a single mono rig. But to illustrate how one might *physically* divide the two instruments, allow me to descend into some signal-flow-oriented semi-techno glop.

In my preferred guitar-plus-loop setup, I run a stompbox-processed Klein guitar into a Rivera M-100 amp with a 1x12 Celestion cab. The Rivera acts as the source of my (questionably) inviolate guitar sound; it also provides a separate line out to one channel of a Mackie mixer solely dedicated to effects. The mixer’s left and right outputs feed two Rivera 100 Duo-Twelve combo amps. This mixer has been factory-modified to provide four pre-fader effect sends so I can monitor the mixer’s output without hearing any of the dry Rivera signal whatsoever—this helps separate guitar from looping. (Paul Rivera installed a rather large footswitchable load-resistor in my amp so I can switch off the dry amp’s output and still feed the hungry sonic appetites of the mixer and loopers.) The looping devices’ outputs are sent to individual mixer channels so I can adjust their levels, EQ and effects sends manually while I play. Since the mixer has channel faders rather than rotary pots, it makes it easy to see the relative levels of my various loops.

The looping instruments themselves often come with fairly extensive foot controls for functions like level and dry/wet mix. For example, the Lexicon PCM-42 includes a footpedal

jack for seamless fades. While playing I often make loops without hearing them initially, fading them in later for a big surprise—your standard “where in hell did *that* come from?” effect. And if said surprise should prove to be a loop spawned in hell, I can fade it out quick or turn it all the way up, depending on the prevailing mood. (End of techno-goop seepage.)

The new breed of looping devices. We are awash in looping instruments these days. Each offers varying degrees of audio quality, a specific amount of recording time (often expandable), its own idiosyncratic features and a distinct user-interface personality.

Of the devices truly designed for looping, the rackmountable Oberheim Echoplex Digital Pro (\$879 with 1 meg of memory, \$1,295 with 4 megs) is undeniably the deepest. Oberheim and its R&D wing, G-Wiz Labs, seem committed to establishing looping as an instrument in its own right, and their attitude shows in the Echoplex DP’s features. It lets you reverse audio while continuing to overdub *ad infinitum*, append a copy of a loop to itself in order to overdub long patterns over shorter ones, edit a loop’s length, MIDI-sync to the outside world, undo your last action, or switch between multiple contiguous loops, all on the fly. (The Echoplex respects the loopist’s efforts. There are provisions for MIDI sample dump/load should loopers want to save their work. While that’s not quite as hip as instantaneously saving and recalling with a PCM card, it’s a running start on all other looping contenders, save perhaps the new nonvolatile-RAM-based Roland MS-1 and Yamaha’s SU-10, “phrase samplers” that retain their samples on power-down, but which aren’t configured for overdubs.) All functions on the Oberheim can be accessed remotely via an optional foot controller. My Echoplex has 50.3 seconds of sampling time, which I use primarily for rhythmic and reverse-effect loops.

Priced at \$459, the Lexicon Jam Man is an extremely affordable rackmountable looper with multiple contiguous loop capability, MIDI-sync, single trigger and single trigger reverse, real-time loop insertion and editing, and some cool tap-tempo delay features that permit lots of user-selectable subdivisions of a beat. (Until now most of my rhythmic loops have been done on a Jam Man loaded to its full 32-second record capacity.) A couple of insubstantial footpedals control most functions, though external MIDI control is needed for some. With its straightforward features and clear owner’s manual, the Jam Guy is a boon to looping novices. Weighing in at less than four lbs., the Jam Dude is a smooove traveler. But since Lexicon has long been a leader in high-end digital signal processing, I await a more complete unit that acts like a well-conceived musical

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David Torn's musical philosophy reflects the same fierce individualism that earned him the Best Experimental Guitarist title in *GP*'s 25th Annual Readers Poll. "A musician should pursue developing something unique and personal," he stresses. "You can always tell the players who are playing *at* the instrument rather than *playing* it. It's super-critical to develop your own approach. It doesn't matter a fuck if your thing involves releasing anger, or has some of the darkness of what people consider to be dissonance. Just find a convincing way to do it! It doesn't have to fit into accepted musical standards. Music is about expression."

But Torn sees a role for discipline in that expression: "It's important to study music and learn what you like in what other people do." In Torn's case, those models include Hendrix, McLaughlin, Wes, Mike Bloomfield, Steve Tibbetts, John Abercrombie, Pat Martino, saxophonists John Coltrane, Dave Liebman and Jan Garbarek, and the music of northern India and Nepal.

We're at the LooP PooL, the modest but mighty studio in the backyard of Torn's pastoral upstate New York home where David recorded his last two solo albums, *What Means Solid, Traveler?* and *Over God* (both on CMP), and a bevy of scoring projects. Although it's early, Torn is raring to go. "I almost always have a loop going," he says as he straps on his Klein solidbody. He grabs the cheapo salt-shaker mike he keeps in his guitar signal path and waves it in front of his rig to capture a few squeedles of random feedback, then layers single-note volume pedal swells and two sparse E-Bow lines across the thickening texture. A few tweaks of his trusty modified Lexicon PCM-42 mutate his creation into an indescribable sound cluster somewhere between NASA's *Voyager* recording and the *Forbidden Planet* soundtrack. *Violà!* An ambient loop is born.

Beaming like a proud papa, Torn explains: "I collect these loops on DAT. I must have 30 or 40 DATs full of loops. One of the reasons I like improvising with loops is because there's this random element that you can never repeat exactly because it's *played* stuff. It's not like synthesizers and MIDI." He then adds to the loop soup the minimalistic lines

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Behind
David's
Psychoactive
Sheets
of Sound



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♩ = ca. 66

Tune down 1 whole step
w/ ambient loop

Ex. 1a

mf w/ bar
vol. ped. B R B R

Ex. 1b

vol. ped. w/ bar
B +1 R

Ex. 1c

w/ bar
B R

Ex. 1d

w/ bar
B +1/2 R B -1 R

D
A
F
C
G
B
D

Ex. 2

♩ = ca. 78

Tune down 1 whole step
w/ ambient loop

D
A
F
C
G
B
D

D
A
F
C
G
B
D

D
A
F
C
G
B
D

D
A
F
C
G
B
D

D
A
F
C
G
B
D

1st punch
f w/ dist.

tacet 1st x

2nd punch
mf

tacet 1st x

3rd punch
mf

4th punch
mf vol. ped.

5th punch
f

vol. ped. < w/ bar

w/ bar
B R

B +1

even gliss

loco

20

in Examples 1a through 1d. Studied in isolation, they reveal much about David's signature whammy ornamentation.

Next, Torn layers an off-the-cuff

five-part rhythmic loop with his Lexicon Jam Man [Ex. 2]. On that device the first punch-in and punch-out establish the loop's tempo, duration and loop point. David starts with a gritty G

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Phrygian/blues riff that emphasizes the $\flat 9$. The second time around he punches mid-loop and syncopates G Phrygian descending from the 5, then again with offbeat fourths and a lone third. Note how both phrases cross over the original loop point. Then it's back to the top for the fourth punch, which includes some volume-swelled bass support, followed finally by melodic whammy manipulations of a single harmonic. The combination of rhythmic and ambient loops creates an animated soundscape of

stunning complexity and beauty.

"The basis of the writing on *Traveler* was loops of guitar riffs, rhythms or chord changes. I improvised in free time because I like that feeling of writing that comes from spontaneous, inspired stuff. Then I transfer the loops from DAT to a Logic Audio digital audio sequencer, figure out the tempos, and start constructing pieces around the loops, mixing and matching from within the computer or onto multitrack tape, sometimes just improvising stuff over

the top. I'll take sampled rhythms and make them fit the guitar riffs. It's a seriously polarized way of working: On one hand, I'm improvising like crazy and on the other, I'm taking the time to arrange these little improvised bits. It can get really twisted."

By now you've probably noticed Torn's penchant for ornamental slurs, slides and bar bends. "I'll pick a shape of line [such as Ex. 3a], but after that, ornamentation is everything for me. I often use the bar [as shown in Ex. 3b]." The pitches of Torn's exotic whammy-generated scales are astonishingly accurate. "It's a feel thing," he shrugs. "I use a TransTrem because it's consistent from string to string."

Ex. 3c, a theme heard throughout "Snail Hair Dune" [from *Polytown*, Torn's '94 collaboration with bassist Mick Karn and drummer Terry Bozzio] utilizes rapidly raised bar slurs for a trilling effect. "The riff is very Arabic-sounding. I transpose it later in the tune."

David's finger bends interact so subtly with his bar bends that they're hard to differentiate by ear. He details the tuning and fingering for the wailing main theme of "spell breaks with the weather," *Traveler*'s opening cut [Ex. 4]. "Some of the bends are slightly flat, some are in-between. I improvised the melody."

Torn is often bummed by standard tuning. "When I'm playing and recording by myself, I'm super-unhappy if the guitar is tuned to E. It feels so damn small. I almost always tune down at least to $E\flat$ and sometimes as low as B." He also has a taste for altered tunings. "I love this one," he says as he plays Ex. 5's D, A, D, G, C, D figure. "It's like D, A, D, G, A, D, except you have a $\flat 7$ on the second string instead of a fifth." This excerpt from *Polytown*'s "Open Letter to the Heart of Diaphora" contrasts David's

Ex. 3a

Any tempo
Tune down 1 whole step

Ex. 3b

$\text{♩} = \text{ca. } 113$
* Tune down 1/2 step

* Pitches sound 1/2 step lower than written.

Ex. 4

* R.H. Tap, L.H. vibrato

$\text{♩} = \text{ca. } 113$
Tuning: R 5 R 4 $\flat 7$ R

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snaky arpeggio with a quasi-Moorish melody brimming with trademark Torn phrasing. "Because I can pull the bar up a minor third or more, I can get ornaments like you hear in Turkish music," he notes. For the recording Torn tuned all the way down to B.

Torn's maniacal soloing on *Traveler's* "...til you are free" (actually the second half of "i will not be free...") is a journey in D, A, D, G, C, D (transposed a whole-step down to C) over an impossibly slow drum groove. "The track," he points out, "was built around a 16-bar drum phrase, sampled and slowed down, though I

kept the pitch pretty much the same. Before I improvised the solo, I came up with this lick that I knew I wanted to get to [Ex. 6]."

Altered tunings may saddle some players with clichéd stylistic trappings, but not Torn. Examples 7 and 8 [from *Traveler's* title track], were conceived in a lowered version of open G, traditionally a country-blues tuning. The exotic riff in Ex. 7 is well served by the open strings. "This tuning has a lot of lovely things in it," enthuses David. "I put the same tuning on a little mini-Strat and doubled the part an octave higher." Notated in 7/4, 4/4 and 6/4, the figure spans the same time as four bars of 6/4, the tune's primary meter. Ex. 8 uses the same tuning for a funky auto-wah excursion driven entirely by ambiguous-sounding parallel minor thirds (fingered like standard-tuning fourths) and squawky, Jimi-flavored octaves.

Given his diverse musings in dropped open G, it seems only natural that Torn should coax a sparse, emotionally charged seven-bar blues

that oozes Delta authenticity [Ex. 9]. "... i will not be free' [*Traveler*] was recorded entirely on one mike with my Framus guitar," recalls David. "I went up to Bearsville Studio to visit my friend who produces Cassandra Wilson's records to listen to some mixes, and it was so acoustic and rough and stunningly beautiful that I came back here at 3:00 a.m. and said, 'Fuck it! I'm putting up a mike, and I'm going to write this tune right now!' I thought I was making a demo. I listened back and thought, 'Damn, I like it the way it is!'" The dramatic chords in bars 4 and 6 of Ex. 9 are harmonically surprising without sounding intrusive.

Two CDs of David's samples, *Tonal Textures* and the new *Pandora's Box*, have been issued by Q Up Arts (Box 1078, Aptos, CA 95001). The latter contains 70 loops with tempo, pitch and meter documentation. They are popular with producers, remixers and sampling keyboardists. Why not try dropping some into your next home movie?

♩ = ca. 31
Very slowly
Tuning: R 5 R 4 17 R

Ex. 6 C5

E♭6 D7/5(♯5) C7/5 N.C.

ff (dist.) w/ bar -11/2

* Try E♭ D♭ C or E D♭ C on repeats.

♩ = ca. 120
Tuning: 5 R 5 R 3 5

Ex. 7 (F) N.C.

f w/ dist.

l.r. - - l.r. - - l.r. - -

♩ = ca. 120
Tuning: 5 R 5 R 3 5

Ex. 8 (C) N.C.

f w/ dist. auto-wah

l.r. - - l.r. - - l.r. - -

Ex. 9

Freely ♩ = ca. 78

Tuning: ♭7 R 4 R 5 R

Acous. gtr. In the sand of this day, I will carve you some let - ters.

(C) N.C. E♭sus4

1

mf w/ slide 1/4

though the waves build un-fer - tered and go.

5

E♭sus4/D♭ w/ out slide



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instrument rather than a by-product of simpler delay-based effects. (I can dream, can't I?)

My trusty standby and mainstay for less rhythmic looping is a Lexicon PCM-42-MEO delay, unfortunately out of production. Mine has been modified to provide about 19.5 seconds of recording. Bob Sellon of S-Tech Electronics [42 Andover Rd., Billerica, MA 01821; (508) 670-6098] can mod these pups to deliver increased memory, reversed looping, MIDI-sync and more. The PCM-42 sounds warm and wonderful, perhaps because of its already outmoded method of Pulse Code Modulation, its limited frequency response and special input/output filters. The 42 is also unique in that 1) it lets you modulate loops via an onboard LFO or your input level, 2) the pitch and length of the loop can be continuously controlled via a footpedal (a powerful feature for altering the basic timbres of input instruments), 3) the feedback and wet/dry mix controls are accessible via footpedal, and 4) it's got a bunch of knobs on the front that can actually be twiddled by sweaty little guitar-oriented hands. It's so visceral, kiddies.

The Boomerang Phrase Sampler (\$459-\$599) is a new contender in the looping ring. An economical unit in an oversized stompbox package, it offers from 60 to 240 seconds of recording time, half- and double-speed playback, several reverse modes, single-trigger sampling, an auto-fadeout feature, a foot-roller

for control of the loop's output volume, and a handy "input thru" switch that mutes the output of the original input signal without affecting the loop's input and output. All in all, this is a neat-'n'-ifty, guitar-targeted looper. It's easy to get a handle (footle?) on and is great for live applications.

Other loopers include the T.C. Electronic 2290, Eventide's H3000 and H4000, Lexicon's PCM-70 (atmospheric reverb loops only) and LXP-15II, Roland's SDE300, various Boss and DigiTech delay pedals and rack effects, discontinued devices such as the Electro-Harmonix 16-Second Delay and the Roland SDE3000, or *any* delay line with repeat/hold and regeneration controls. Just remember that more delay time = more recording time = greater variety and animation in your loops. I've found that two seconds of delay time is generally a damn fine starting point.

More Q&A for those already in the loop:

How can I get rid of those occasional annoying clicks at the loop point?

1) If your loop length is pre-set, don't be caught holding a note when you close the loop.

2) If you want to keep a loop that already has a click in it, overdub something across the offending loop point.

3) The improviser's option: Make something out of the click in subsequent overdubs. Make it work for you.

I really like certain loops I've created, but some, like good solos, are unrepeatable. How can I save them?

1) In a non-performance situation, you can

record them for future reuse. If you start to build a catalog of loops, I strongly recommend documenting relevant information such as key signature, tempo, special processing, chordal movement, tunings, etc.

2) Write to the manufacturers of these devices and implore them to build a looper capable of fast storage and recall and broader, more instrument-oriented controls. Please.

How can I keep my loops from sounding like other guitarists' loops?

1) Stop playing like other guitarists.

2) Try techniques such as feedback, E-Bow or holding a small cassette player with previously recorded material over the guitar's pickups. Switch a cheap salt-shaker mike into the guitar's signal path for feedback and vocals. Sing into the pickups, or play a harmonica or alarm clock into them. Mix and match.

3) Alternate clean tones, fuzz, wah, dark and bright tones, etc. Feed reverb, pitch-shifts or other effects into the loop, or post-process the loop with same.

4) Use the guitar's volume control to fade individual notes—or entire phrases—in and out.

5) Use the looper's pitch/length/reverse controls to alter the character of the loop, then overdub more material.

6) Use different guitar tunings.

7) Try playing without closing the loop.

8) Try to expand your harmonic palette so you can go to a new place. A new harmonic palette is a new emotional palette, spud.

So—good luck and good-bye from the Loop Pool.