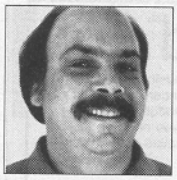
DRUM MACHINE PROGRAMMING



NEW COLUMN

NORMAN WEINBERG

VERTICAL, LINEAR, & INDEPENDENT DRUMMING

WELCOME TO A NEW DRUM PROGRAMMING COLUMN. Drum programming plays an integral part in today's electronic music studio, yet many non-drumming musicians lack confidence in this area. We're here for ya, folks!

This column will explore many different aspects of drum programming. We'll investigate time-tested grooves along with the newest drumming styles. You'll read hints and specialized techniques that will give your drum programming more life. And we'll keep you posted on creative ideas for making the most music with your maracas. But this column will go much deeper than simply presenting patterns and fills for you to punch into your machine or sequencer. We'll discuss how drums and percussion instruments operate within the musical fabric, and we'll let you peek inside a drummer's brain to see what (if anything) makes it tick.

The majority of drum programming tends to imitate a live drummer's playing style. In other words, the kick, snare, toms, and cymbals have specific functions that relate to the music, and to a drummer's ability to strike these instruments with four limbs. Currently, there are three main concepts or approaches to playing patterns and grooves on an acoustic drum kit. All three transfer beautifully to drum programming.

One structural approach to playing drum beats is the *vertical* pattern. In vertical playing, the hi-hat or ride cymbal sets up a consistent quarter-, eighth-, or sixteenth-note ostinato. Under this skeleton, the kick and snare play notes that, for the most part, reinforce the cymbal's persistent rhythm.

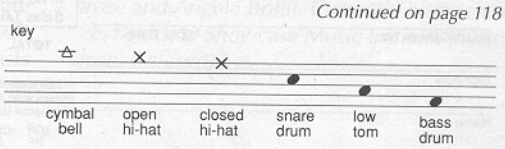
In Example 1a, the cymbal pattern is a series of eighth-notes on a closed hi-hat. Notice how almost every snare and kick note is layered with the cymbal. In Example 1b, an energetic hi-hat ostinato creates a more interesting rhythm. In this example, the kick and snare have a little more freedom, yet most notes still fall with the cymbals.

Vertical drumming has been around for many years—from the earliest Dixieland to the heaviest metal—and a majority of today's grooves are still based upon the concept of the cymbal ostinato. When programming patterns using this approach, start by entering the cymbal pattern (on hi-hat or ride cymbal), and then add the kick and snare to provide punch and pulse.

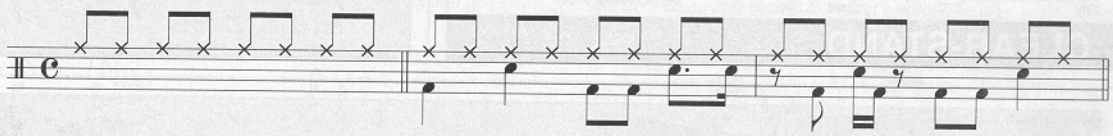
A more recent playing concept is that of *linear* drumming. In linear patterns, a distinctive rhythmic phrase is "drumestrated" across the various instruments in the kit. In Example 2a, a pattern of eighth- and sixteenth-notes sets up a driving motion, yet no two instruments play at the same time. This creates a linear melodic line composed of drum timbres instead of pitches.

Example 2b demonstrates a thicker and busier texture. Here, the same rhythmic phrase is placed across the hi-hats and snare drum, while the kick drum lends rhythmic support. Perhaps the easiest way to program linear patterns is to write down the basic rhythm first; then voice the rhythms

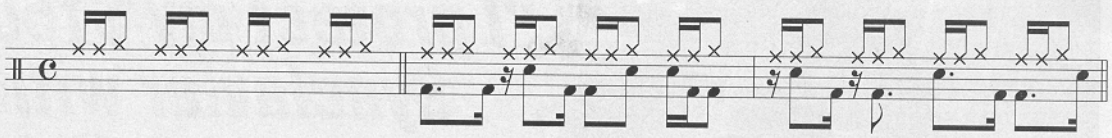
Continued on page 118



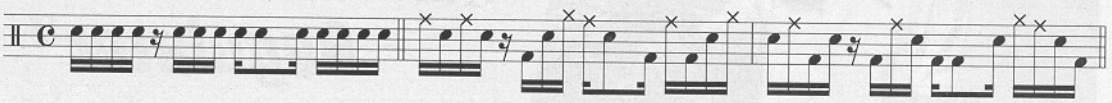
Ex.1a.



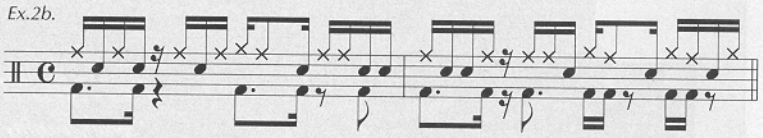
Ex.1b.



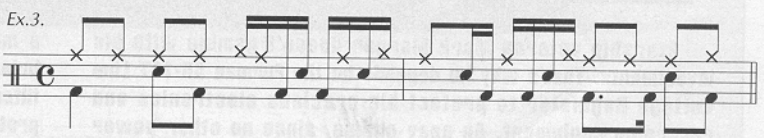
Ex.2a.



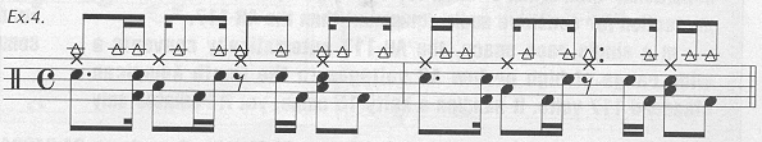
Ex.2b.



Ex.3.



Ex.4.



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Continued from page 115

to the instruments using step-time.

Linear drumming has its roots in the world of funk and fusion. But lately, drummers have been sneaking linear concepts into predominantly vertical styles. Example 3 shows how to mix linear drumming's rhythmic diversity within vertical drumming's simple framework.

Drummers have yet a third approach for playing patterns. This might be called the *independent* concept. In an independent groove, the drummer thinks of each instrument in the kit as a separate voice that contributes its own ingredient to the rhythmic mix.

Independent groove programming is illustrated by Example 4, a Latin groove in which the standard drum-kit sounds are used to imitate the traditional instruments in *conjunto* music. For this pattern, the bell of the ride cymbal replaces the *cascara* (shell) rhythm normally played on the timbales. The snare drum plays a variation on the "3:2 clave" part, and the low tom (accenting beats two and four) replaces the surdo. Add the closed hi-hat to give the impression of a cowbell and the bass drum to provide an image of the conga part.

Programming independent grooves on a drum machine or sequencer is easy. Try entering one voice at a time and using rhythms that sound complete (but not too busy) when heard by themselves.