

Information on the piece “Dry Rivers”

Gordon Monro

“Dry Rivers” was inspired by a trip the composer took through the Western part of New South Wales, Australia. The country is semi-arid rather than desert, being covered by low scrub. It is very flat, and changes imperceptibly over hundreds of kilometres. Every river we came to, except one, was dry.

The piece uses digital synthesis; specifically, fractal waveforms¹. There are nine parallel lines of sound, each with a different sub-audio frequency (the slowest repeating every 6 seconds). However the waveforms are sufficiently complex to allow each cycle to be heard as a distinct sound. The timbres of the waveforms change slowly throughout the piece.

The nine lines consist of “phrases” arranged in a simple fractal-like manner. The dual use of fractals at the waveform level and at the phrasal level helps to give the impression of something that is always the same, yet always changing.

“Dry Rivers” was realised on a workstation belonging to the School of Mathematics and Statistics, University of Sydney.

¹ Gordon Monro. “Fractal interpolation waveforms”, *Computer Music Journal* vol. 19, no. 1, Spring 1995, pp. 88–98