



## Story and Physical Space

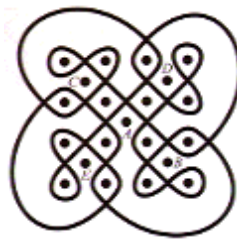
Stories tend – with a few notable exceptions – to inhabit a quite specific physical space. However, the details of these tend to be quite easily transferable and a story whose original locations were all, say, southern Irish, could just as easily be transformed into their Japanese equivalents when retold in Japan, or Russian equivalents when retold in Russia, etc.

However, some cultures use their stories to record the actual landscape around them in quite extraordinary ways. The classic example would be the ‘songlines’ of the aboriginal Australians – mythical stories that simultaneously record the sacred history of the people and their ancestors *and* function as a map of pathways across the vast Australian interior. Someone skilled in these stories and traditions could literally sing their way across the country.

There are other physical manifestations of story:

‘To accompany the telling of a story or recounting of a fable, men of the Chokwe people in south-central Africa traditionally made sand drawings, called *sona*, to illustrate the tale. These highly stylized geometric illustrations also served as memory aids.

The storyteller would clean and smooth the ground, then use his fingertips to press into the sand a rectangular grid of equidistant dots. As he talked, he would trace a winding line among the dots. More often than not, he would draw the line in one continuous motion to create a closed loop. A line could intersect itself but could not be traced over again.



*This sand drawing illustrates a fable in which a rabbit, positioned at point B, discovers a salt mine (point A). Immediately, a lion (point C), a jaguar (point D), and a hyena (point E) demand possession, asserting the rights of the strong. The rabbit, affirming the rights of the weak, makes a fence to isolate the mine from all usurpers.’*

Source: Ivars Peterson, ‘Sand Drawings and Mirror Curves’ (MAA, 2001)

If anyone is interested in learning more about this, and how fundamental storytelling patterns can be used to prove fundamental theorems in Mathematics, then please do go along to **Mr Elton’s talk next week: *Sub-Saharan Sand Stories*, 6.15pm, LT block room 12, Wednesday 10<sup>th</sup> March**