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what we see as textual anomalies, which are sometimes left unexplained or dismissed as 'one of those things'. M-theory suggests that all of 'those things' may be explained.

When discussing the nature of one-branes and two-branes, Greene muses about the relationship between a three-brane and what we perceive as the space around us. Similarly, Gribbin postulates that '[w]e may live on a 3-brane [a three-dimensional brane – VC] in an infinitely large extra-dimensional space in which there are an infinite number of other 3-brane universes ... A further speculation then suggests that the laws of physics [or text, if we are talking about textbranes – VC] may be different in different universes.'[34] As a three-dimensional object, a three-brane, if big enough, could take up all the space in which we exist. When examining the nature of branes, Gribbin states that 'the brane we populate is "just right" for life.'[35] In the context of text analysis, there should be certain conditions in a text that would allow a certain type of character/plot/etc. to exist or not to exist. This leads us to the question: what if we treat the text we see on a page as a textbrane, one of many existing in a higher-dimensional text space? Does this change our approach to it and, if so, how?

Then a link between strings and branes was established. Polchinski discovered a limited movement of the ends of open strings and concluded that string ends 'stick' to branes – either the one where the string originates or a different one in the same or a different dimension. So, in order to understand a brane, one needs to understand strings, and everything reverted back to string theory as the potential unifying theoretical foundation.[36] Randall adds to the explanation of branes by examining the nature of the 'bulk' – 'the full higher-dimensional space.'[37] The bulk is omnipresent and 'extends in all directions. The bulk spans every dimension, both on and off the brane. [...] The bulk is therefore "bulky" whereas, in comparison, the brane is flat (in some dimensions), like a pancake.'[38] The bulk houses branes,

34   Gribbin 2007: xiv.
35   Gribbin, xiv–xv.
36   Halpern 2004: 261, 264.
37   Randall, 53.
38   Ibid.

and branes either interact with each other to some extent – through the force of gravity, for example – or not at all. The bulk is invisible and can only be detected through its influence on the three-brane.[39]

While all open strings and other particles are trapped within our three-brane, closed strings (not attached to the brane) can cross into other branes. Greene discusses how gravity appears to be distributed across several dimensions; the upshot of the discussion is that gravity is not trapped within our brane but is free to travel across dimensions. This opens up new possibilities for text analysis. Let us suppose that the Aztec calendar reference framework is treated as a closed string, able to cross over into other textbranes. This would suggest that the properties of this framework are detectable in other textbranes. In other words, we could see not just its bits peeking through the main textbrane, but its continuous 'shadow', a reminder of its constant presence. We see glimpses of it in 'Piedra de sol', embedded in the text as repetitions of words relating to the Sun Stone calendar.[40]

I have previously analysed temporal changes in 'Piedra de sol' and concluded that 'the time-space structure of the whole poem can be seen as a circle in which there is no discernible temporal or spatial transformation – a dream sequence where, in spite of the occurring events, no obvious eventual change is noticed.'[41] This conclusion is in agreement with other analysts' views of the poem's temporality. The consensus is that there are several timelines here – 'normal or "standard" time; time as measured by the poet's experience; and timelessness as a characteristic of eternity.'[42] If we combine the two approaches and consider them from the point of view of Newtonian and Einsteinian physics, an interesting interpretation emerges. Standard time refers to absolute time that exists, like absolute space, 'without reference to anything external.'[43] However, Einstein's theory of relativity refuted the existence of absolute space and time and introduced the concept of relative space and time. This means that since the

39   Halpern, 11–12.
40   See Table 3 for the repetitions identified in the 19 original timeplanes.
41   Carpenter 2001: 497–8.
42   Fein, 19.
43   Greene, 45.