

## Fluidisation pipes: evidence of large-scale watery catastrophe

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A few years ago, some geologists in Australia were objecting in print to the idea of interpreting geology in terms of the Bible and Noah's Flood.<sup>1</sup> They argued that it was impossible to explain the rocks of the world within a 6,000-year time-frame, even allowing for a year-long global flood. For some reason they had not appreciated that the evidences of large-scale, watery catastrophe in the geological record<sup>2</sup> are just what we would expect from the global Flood of the Bible.<sup>3</sup> Indeed, one vivid illustration was featured on the cover of the same issue of the magazine in which their objections were published.<sup>4</sup>

The cover (Figure) showed a bedded sandstone formation in a remote part of Arnhem Land Aboriginal Reserve, Northern Territory, Australia. The sedimentary bedding varies in thickness from thin to medium, and is sub-horizontal. Altogether the sandstone pictured, which is quite friable, is over 5 m thick.

This particular outcrop is part of a 340-m-thick unit called the McKay Sandstone within the mildly-deformed McArthur Basin of northern Australia. The unit comprises medium- to coarse-grained sandstone together with minor fine-grained sandstone, granules, pebbles and basalt.<sup>5</sup> It has been classified as Paleoproterozoic, based on interpretations of U-Pb dating of zircons from igneous units in the area.<sup>5,6</sup>

In the picture, a large, cylindrical structure cuts vertically across the bedding of the sedimentary rock. The diameter of the columnar structure is not constant, but varies from 1.3–1.7 m over its length.

Like the surrounding sedimentary rock, the column is composed of sandstone, but in this case it is unbedded,

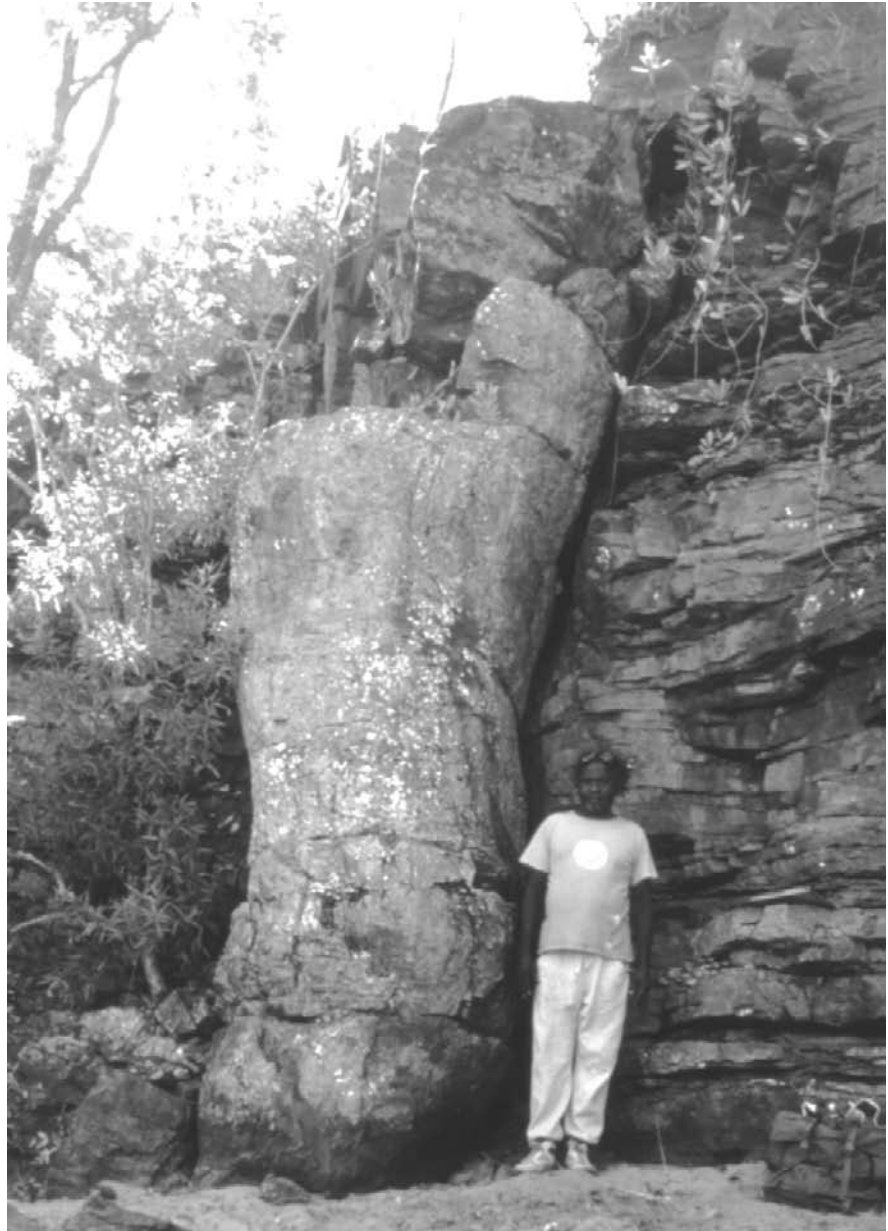


Photo by David Rawlings

*Cone-shaped sandstone column piercing a thick layer of bedded sandstone.*

except for vague vertical layering, concentric with its circumference. The base of the column sits on top of a fine-grained basalt sill 3–4 m thick. The top of the sill has a ropy surface and contacts baked and vuggy<sup>7</sup> sandstone and mudstone, in places brecciated. The sill contains distinctly zoned amygdales<sup>8</sup> that are larger in the middle of the sill.

Numerous similar pipes occur within the sandstone, at irregular intervals along strike,<sup>9</sup> at the same level immediately above the sill. They vary in diameter from 2–10 m and are up to 5 m high. The longest preserved length

is over 4 m.<sup>4,5</sup>

These columns point to large-scale geological catastrophe. When the basalt lava intruded horizontally, the sand was still wet and unconsolidated. The heat from the molten rock boiled the water immediately above the sill. As a result the water welled up, forming a vertical column through the sandstone. The upward flowing water suspended the sand particles against gravity, causing the sediment to behave like a fluid. Naturally, the flow destroyed the layers of horizontal bedding. Because of this behaviour, the structure has been called

a 'fluidisation pipe'.

It is clear that fluidisation pipes point to large-scale rapid geological processes.

First, the sedimentation rate must have been extremely rapid to produce an unconsolidated, water-filled layer of sand at least 5 m thick over a large geographic area. There are many other evidences in the McKay Sandstone that the sedimentation rate was very high, including the occurrence of planar lamination (even in thick-bedded units),<sup>10</sup> metre-scale folding of beds, and large dewatering structures.<sup>11</sup> Rather than millions of years, the sedimentation rate indicates very rapid deposition.

The basalt sill also points to large-scale rapid, catastrophe. The complete thickness of the sill must have intruded quickly over the whole area before the water-logged sediments were able to quench and harden the magma. A thin sill would have been easily quenched, and a slow intrusion rate would have allowed time for the water to start circulating and cool the magma. The entire sill must have been emplaced very quickly before the overlying water had time to boil and establish the strong circulation that fluidised the sand.

And finally, the fluidisation pipes mean that sedimentation and sill emplacement occurred together, indicating that there was virtually no time between the two processes. Thus, fluidisation pipes are one more example of large-scale, watery catastrophe in the geological record.

With such clear evidence of pervasive, inter-woven catastrophe, it is surprising that geologists do not see the implications. Even though they carefully describe the structures and appreciate something of the speed and scale of the processes, they do not realise that the evidence destroys the concept of millions of years. This illustrates how a paradigm can constrain people from seeing the implications of what they observe. The bigger implication, of course, is that the evidence is just what we would expect from the global Flood of the Bible.

Biblical geology is such a refreshing, stimulating, alternative. It breaks

open the straight-jacketed thinking of long-age philosophy, and it makes sense of the evidence.

#### References

1. Blake, P., More geology and the Bible I; Morand, V. and Cayley, R., More geology and the Bible II, Letters, *The Australian Geologist* **109**:5, 1998. The full exchange is reproduced on <www.uq.net.au/~zztbwalk> 29 August, 2000.
2. Catastrophe is now more widely acknowledged in the geological record. See for example: Ager, D., *The New Catastrophism: The Importance of the Rare Event in Geological History*, Cambridge University Press, 1993.
3. Morris, J.D., *The Young Earth*, Creation-Life Publishers, Colorado Springs, CO, 1994, gives many geological evidences of the global Flood.
4. Rawlings, D., Cover photo, *The Australian Geologist*, **109**:4, 1998.
5. Sweet, I.P. et al., *Mount Marumba, Northern Territory, 1:250,000 Geological Map Series Explanatory Notes, SD 53-6*, Australian Geological Survey Organisation, Canberra, 1999.
6. Scott, D.L. et al., Basement framework and geodynamic evolution of the Palaeoproterozoic superbasins of north-central Australia: an integrated review of the geochemical, geochronological and geophysical data, *Australian J. Earth Sciences* **47**:341-380, 2000.
7. A vug is an unfilled cavity in a rock, commonly not joined to other cavities, and often lined with vapour-phase crystals different from the mineral composition of the surrounding rock.
8. An amygdale is a secondary mineral deposit in an elongated, rounded or almond shaped vesicle in igneous rock, especially basalt.
9. The direction in which a horizontal line can be drawn on a bedding plane.
10. Sweet et al., Ref. 5, p. 17.
11. Sweet et al., Ref. 5, p. 18.

## Origin of life and the homochirality problem: is magnetochiral dichroism the solution?

Jonathan Sarfati

A huge barrier for those desiring to be 'intellectually fulfilled atheists'<sup>1</sup> is finding a naturalistic origin of the first living organisms. Despite some evasion by major evolutionary propagandists, this is a part of the 'General Theory of Evolution', defined by the evolutionist Kerkut as 'the theory that all the living forms in the world have arisen from a single source which itself came from an inorganic form'.<sup>2</sup> Indeed, life's alleged origin from lifeless chemicals is commonly called *chemical* or *prebiotic evolution*, or *abiogenesis*. In fact, readers should be aware that most researchers have already presupposed that chemical evolution happened — it must have, because we are here (and don't give me that rubbish about a Designer, because that is not science — regardless of whether the evidence supports it!).

However, because even the simplest self-reproducing organisms are extremely complex,<sup>3</sup> there are enormous hurdles for all chemical evolutionary theories to overcome.<sup>4-8</sup>

One of the major hurdles is the origin of *homochirality*, that is, all the vital biomolecules of life having the same handedness (see figure), e.g. proteins comprise entirely 'left-handed' amino acids, while nucleic acids, starch, glycogen etc. contain sugars that are all 'right handed'. Homochirality is necessary to produce the precise shapes of enzymes and the DNA's double helix. But ordinary chemistry always produces a 50/50 mixture of left and right handed forms (*enantiomers*) — such a mix is called a *racemate* or *racemic mixture*. Chemists normally require *pre-existing* homochirality, usually from a *biologi-*