

It is *convergent* with modern platypuses. Thus, the mammalian conquest of water is pushed back 100 Ma within the uniformitarian timescale!<sup>7</sup>

If that is not all, a Mesozoic *gliding* mammal about the size of a squirrel was just found in Inner Mongolia, China.<sup>8</sup> The dating is controversial but ranges from Mid Jurassic to Early Cretaceous. Gliding is a very specialized behaviour, but the evolutionist claim that it evolved many times in different groups of animals. The new mammal, placed in a new order, pushes back the origin of gliding 70 Ma!

Evolutionists would have expected that any mammals found that were this ‘old’ to be generalized and able to evolve in many different directions with time. However, all these mammals are surprisingly (to the evolutionists) specialized and diverse—clear back in the Middle Jurassic! Thus mammal diversity is not only earlier, but the supposed evolution of mammals must have occurred much earlier, perhaps back in the early Triassic or even the Permian:

‘This exciting fossil [the platypus-like animal] is a further jigsaw-puzzle piece in a series of recent discoveries, demonstrating that the diversity and early evolutionary history of mammals were much more complex than perceived less than a decade ago. It also impressively contradicts the widely held view that early stem representatives of modern crown groups (groups of organisms with living representatives) are generally primitive and unspecialized.’<sup>7</sup>

These exciting discoveries of Jurassic and early Cretaceous mammals are considered just a glimpse of what is to come in the future that will fill in the many gaps remaining in the knowledge of Mesozoic mammalian diversity.<sup>9</sup> Compared to what evolutionists used to say about mammals in the ‘age of dinosaurs’, these new mammal finds bring up several disturbing questions. Why weren’t such complex and specialized mammals found before the past decade? Is evolution really involved at all when

such diverse mammals are now found from the Jurassic to the Quaternary?

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## New study claims hobbit was a new species

Peter Line

The latest salvo in the ongoing hobbit wars is a study led by anthropologist Dean Falk, published in the Proceedings of the National Academy of Sciences (PNAS), purportedly showing that the hobbit was not a microcephalic, but rather a new species.<sup>1</sup> The announcement of the study received considerable media attention, although the paper itself only appeared on the PNAS website days later—when the story was no longer ‘in the news’.

The unfolding of the hobbit debate has been covered earlier,<sup>2,3</sup> and an in-depth development of the hobbit tale, from the perspective of the archaeologist who led the discovery team, is available in a recently published book.<sup>4</sup>

### Where is the data?

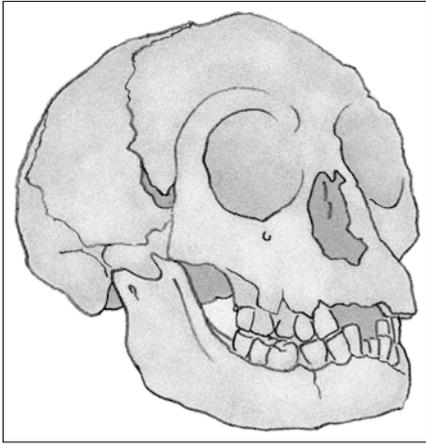
The new study involved comparing 3D reconstructions of the brains from the hobbit (LB1 individual), nine microcephalic people and 10 normal people.<sup>5</sup> From this, according to a media report:

‘The researchers found two characteristics—in addition to small size—that distinguish microcephalic brains: The bottom part sticks out in the back, and the region behind the forehead is unusually narrow.’<sup>6</sup>

Regarding these characteristics the hobbit was reported as:

‘... fitting in with normal humans, not microcephalics ... But she was unlike modern humans in four other features distinguishing her from *Homo sapiens*, crying out for recognition as a separate species, the researchers said.’<sup>1</sup>

However, the data in the study is characteristically silent. Hence,



*Homo floresiensis* skull.

it is not the LB1 fossil, but the investigators interpreting the fossil find that are crying out for the hobbit to be recognized as a new species. As indicated by evolutionist John Reader: ‘Preconceived notions have played a fundamental role in the study of fossil man.’<sup>7</sup> Given this, can the authors of the paper be relied upon to give an unbiased study, or instead to interpret the data to fit a preconceived outcome? From an examination of a previous study led by Falk it is obvious that the agenda of the authors is to debunk the microcephaly hypothesis.

### Lack of objectivity

In this earlier brain endocast study by Falk *et al.* they concluded that LB1 was not a microcephalic or pygmy, and a hypothesis was put forth ‘that *H. erectus* and *H. floresiensis* may have shared a common ancestor that was an unknown small-bodied and small-brained hominin.’<sup>8</sup> But a problem with the study was that the sample size of microcephalics used was a mere one specimen, and even if it was a good comparison specimen (which it was not), ‘it is simply impossible to take any single skull as typical of “true microcephalics”.’<sup>9</sup> Hence, for Falk *et al.* to rule out microcephaly, after comparing LB1 to only one other microcephalic specimen, shows a total lack of objectivity. To emphasize the point, about six months later a brief paper was published by Weber

*et al.*, detailing the analysis of 19 microcephalic modern humans, where the finding of a microcephalic endocast comparable to LB1 was reported.<sup>10</sup> The authors commented that:

‘Both skull and brain morphologies of microcephalics are extremely heterogeneous<sup>11</sup> and grossly resemble the anatomy and proportions of *H. floresiensis*.’<sup>10</sup>

Hence, one would have thought that the Falk team would have learnt from this rush to judgment about inventing a new ‘hominid’ species, but the latest study shows no such caution. According to anthropologist Robert Martin one of the problems with the current Falk *et al.* study is that four out of the nine microcephalics used in the comparisons were juveniles, not adults.<sup>12</sup> Martin comments:

‘What we’re saying is LB1 was definitely an adult. If LB1 was a microcephalic, he was one with a mild condition who managed to survive into adulthood ... So the proper comparison is with microcephalics with a mild condition who were adults.’<sup>12</sup>

Martin also has an issue in regards to a discrepancy between his and Falk’s team on the classification of a microcephalic skull from South Africa, known as Basuto woman. The Martin team’s results showed the brain of the Basuto woman to be much more similar to LB1 than the current study found.<sup>6</sup> This illustrates how different researchers, examining measurements from the same skull, can come to opposite conclusions. Needless to say Martin remained unconvinced with the study, and is quoted as saying:

‘My gut feeling is what they (Falk’s team) did is just played around with the measurements until they got something that suited them.’<sup>11</sup>

Strong words, but after reading through the paper the comments appear to be not without justification. The authors state that eight measurements were ‘used to generate four ratios that we thought would discriminate between’

normal humans and microcephalics.<sup>13</sup> They then did statistical analysis on the data, using the four ratios as variables, and subsequently claimed that two of the variables (cerebellar protrusion and relative frontal breadth) could classify microcephalics and normal humans with 100% success, with LB1 sorting with normal humans.<sup>13</sup> However, this begs the question, could other ratios have been chosen, that also differentiated between the microcephalics and normal humans, but where LB1 sorted with the microcephalics? Also, looking at the authors’ scatter plot of the two ‘classifier’ variables, the microcephalic measurements appear very heterogeneous.<sup>14</sup> One suspects that if the sample sizes were much larger, the 100% success rate in classification would break down.

It should also be considered that LB1 may have been a microcephalic specimen of *Homo erectus*, not necessarily a microcephalic ‘modern’ human. Because of its small brain and the current definition of microcephaly, the hobbit would tend to be classified as microcephalic by default, irrespective of its level of intelligence. However, even if, for example, it is regarded as a dwarfed specimen of *Homo erectus*, then because *erectus* itself is a fully human category, a separate species *name* or not will make no difference to the ‘big picture’, namely that we are dealing with a descendant of Adam, a toolmaking, fully human being. In short, despite being interpreted within a framework that assumes the idea of human evolution, it gives no support to that idea.

In other hobbit news, it has recently been reported that permission has been granted to the original discovery team for them to restart excavations in the Liang Bua hobbit cave in Indonesia.<sup>15</sup> There is even talk about extracting DNA from hobbit remains to settle the debate.<sup>16</sup> That remains to be seen, but there seems little doubt that further hobbit fossils will add more fuel to a debate which will not go away soon.

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## Granite formation: catastrophic in its suddenness

Tas Walker

**I**n fact, just about everything that was taught as recently as ten years ago about granitic magmatism has been turned on its head.<sup>1</sup>

So concludes John Clemens in his overview paper about the origin of granite, published in the UK in the Proceedings of the Geologists' Association.

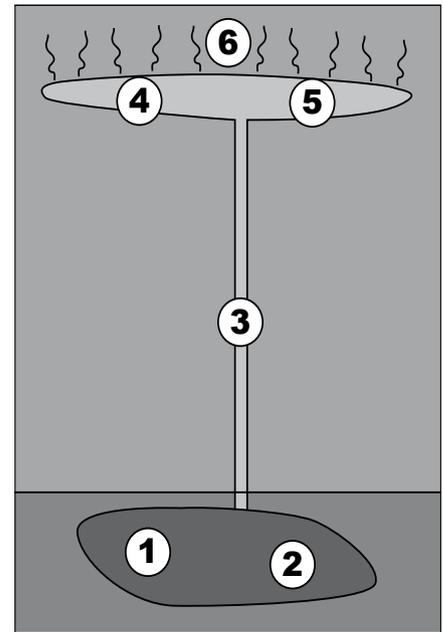
In his introduction to Clemens's paper and the accompanying discussion, editorial board member W.J. French explains that the origin of granite has been controversial since before James Hutton (1726–1797). After summarizing the turbulent disputes through the 1950s and up to the present, French boldly proclaimed that with Clemens's paper, 'The granite controversy ends!'

### Conflict with the Bible

For more than a century geologists have accepted that granites formed slowly over millions of years. Any suggestion that the biblical account with its 6,000-year timeframe be taken seriously has been dismissed as nonsense.

Geologist Paul Blake, in the newsletter of the Australian Geological Society, argued exactly that—that granite formation means that any geological model based on 'the Bible's flood myth' is absurd, and 'all the available evidence contradicts such ideas.'<sup>2</sup> He illustrates his point using granite outcrops:

'Field relationships [in this area of Australia] show that there are two entirely separate granitoid intrusive events in the sequence, each of which require at least 3,500 years to cool. How does Dr Walker fit 7,000 years worth of granitoid cooling into 60 days? Unless Dr Walker can find a way to emplace,



**Figure 1.** Model for the origin of granite: (1) partial melting of source rock deep inside the crust, (2) separation of magma from solid residue, (3) transport of magma in dykes to upper crust, (4) accumulation of magma into tabular pluton, (5) crystallization of pluton, and (6) cooling of pluton.

cool and unroof granitoids within a couple of days then his model does not stand up to scrutiny.'<sup>2</sup>

But, according to Clemens, slow-and-gradual ideas about granite formation are wrong:

'The long-cherished picture of granitic diapirs [balloons of magma] slowly pushing their way toward the upper crust and grinding to a halt by solidification has been replaced by an altogether different picture of narrow feeder dykes punching their way upward in months, pulsing with magma and feeding rapidly growing plutons.'<sup>1</sup>

Surprisingly, Clemens suggests that belief in an old earth has long led thinking down the wrong path. He claims that the idea the earth is 4,600 million years old had 'a psychological effect of tempting one to consider geological processes as slow and continuous. After all, there is all that time to fill.' He concludes that granites belong with increasing number of geological processes that were