

Dear All

Regarding the recent SMH article about the Australian Journal of Earth Science article reporting that the 'age of the caves' is 340million year based on dating techniques applied to cave mud and clays, I would like to query whether this is the correct conclusion from the data as described.

Surely the experiments used to calculate the dates of the clays will only tell you how old the sediments/clays are? The study does not tell you how the muds and clays got there, let alone when and how the holes were produced!

It is assumed that there must be a hole in the rock which was later filled with the clay and hence, the caves must be older than the clays. However, has this aspect of Jenolans geomorphology been demonstrated by this study? Does this study demonstrate that the muds travelled into the cave and if so, how? Could the muds have been introduced into the limestone prior to the actual formation of the holes we call 'caves'? Could the mud have been the reason why the caves have formed as they have? Does the age of the mud tell you how it got there?

My point - lets interpret the data for what it tells us (ie. measuring the age of mud will only tell you how old the mud is) and be cautious with how extrapolate these ideas into broader conclusions (ie we now know the age of the chambers and tunnels at Jenolan in which the mud resides) so that we turn our speculations into the next hypothesis to be tested rather than the next 'fact' to be used in our interpretation.

Food for thought...

Cheers

Dr Dan

BTW - according to SMH, the study used mud from the floor of the caves. Why did it not use mud from the roof of the cave, and in all the cracks in the walls and ceiling? The clay that sits around the huge conglomerate sitting in the ceiling of both the Chifley as well as the Baal would also be interesting to test - if volcanic ash is the cause of the clay (according to SMH), how did the ash carry those stones into the ceiling?

BTW2 - FYI, I haven't read the article in J Earth Science as yet - so all my questions may be answered when we read what the experts reported.