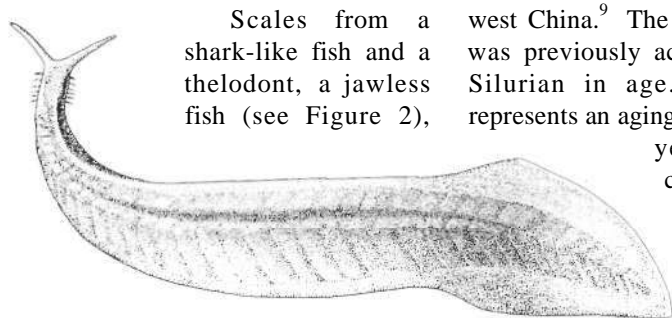


# Evolution Pushed Further into the Past

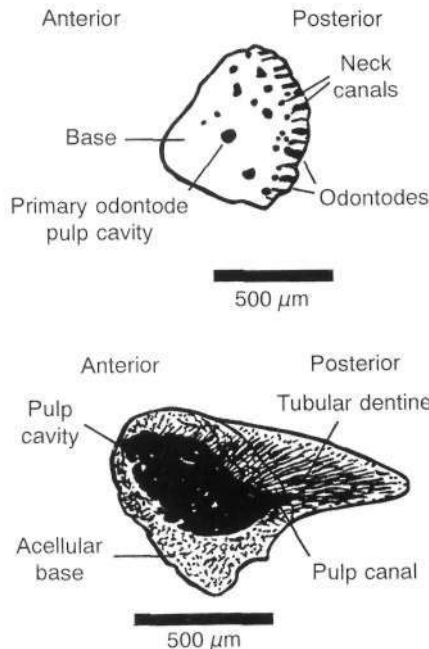
Evolutionists have their scenario of when all creatures evolved. They can usually tell us in what period of geological time a particular organism originated, and if the organism is extinct, they 'know' when it died out. However, their scenario has 'evolved' over time, because it is not uncommon for evolutionists to later discover fossil organisms further back within the geological time-scale. At the other end of the scale, 'extinct' organisms are sometimes found alive, as living fossils.

Lately, there has been a rush back in 'time'. For instance, scientists have pushed the origin of vertebrates back to the Cambrian. The oldest vertebrate previously had been a jawless fish, until scientists discovered that the mysterious teeth-like index fossils, called conodonts, really are teeth from extinct vertebrates.<sup>1,2</sup> Moreover, one of the many weird creatures found in the Burgess Shale of south-eastern British Columbia, named *Pikaia*, (see Figure 1) plus a new organism from China are now considered Cambrian chordates.<sup>3</sup> New fossil discoveries have also pushed two more phyla, called Tardigrada and Pentastomida, back into the Cambrian.<sup>4</sup> Now, all phyla, except one, originated in what has been called the Cambrian explosion. But that explosion recently has been shortened to a mere 10 million year period.<sup>5</sup>



**Figure 1.** *Pikaia*, found in the Burgess Shale, British Columbia, Canada.

have been tentatively identified from the Middle to Late Ordovician of Colorado.<sup>6,7</sup> If these scales are identified correctly, they push the origin



**Figure 2.** Drawings of a shark-like fish scale (top) and a thelodont scale (bottom) from the Late Ordovician Harding Sandstone of Colorado (USA).

of sharks back 25 million years from the Lower Silurian and thelodonts back 10 million years from higher up in the Late Ordovician. In the same formation, acanthodian fish may have been found. The earliest fossils of these organisms come from the Silurian.<sup>8</sup>

A vascular plant has been unearthed in the Early Silurian in south-west China.<sup>9</sup> The first vascular plant was previously accepted to be Late Silurian in age. The new find represents an aging of some 25 million years. If they continue at this pace, some of those old reports of vascular plants within the Cambrian may finally be accepted. While

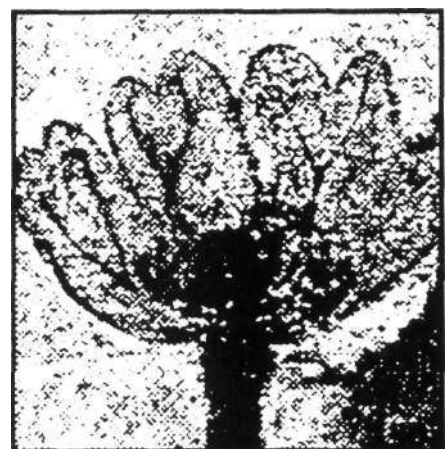
on the subject of plants, water-conducting vessels have been discovered in stems from the Late Permian in China.<sup>10</sup> The oldest water-

conducting vessels had previously been found from a Lower Cretaceous angiosperm. Conducting vessels are now a little more than 100 million years older. To top it all off, the world's oldest flower was just discovered deeper down in the Lower Cretaceous (see Figure 3).<sup>11</sup> Of course, it was small and 'primitive'.

Some evolutionists have been trying to push the origin of birds back before the time of *Archaeopteryx* in the Late Jurassic. These attempts have generated much controversy. Several new types of birds have recently been reported from China.<sup>12</sup> They join with a previous discovery of a bird called *Confuciusornis*.<sup>13</sup> All these fossils are said to be a little younger than *Archaeopteryx*. However, all these birds in the Late Jurassic suggest to evolutionists that birds

'... may have appeared as early as the Late Triassic —around 60 million years before *Archaeopteryx* came onto the scene.'<sup>14</sup>

Man is not to be outdone. The use of 'sophisticated speech' and fire by man has now been pushed back in time, based on the discovery of a structure built by man deep down in a cave in



**Figure 3.** Computer enhanced image of a flower imprint in Cretaceous English clay. Actual size is 7 mm.

southern France.<sup>15</sup> The enigmatic 4 metre by 5 metre structure was dated at 47,600 years old. At this time, only Neanderthal Man supposedly inhabited Europe. To find their way down into the dark cave, scientists conclude that the Neanderthals had to be able to harness fire in order to see. For the people to have built the structure, they had to communicate by more than grunts. So, Neanderthal Man must have possessed language ability.

All these recent discoveries are pushing evolution further and further into the past. The cramming of so many new and old phyla back to the Cambrian 'big bang', which suppos-

edly occurred over an even shorter period than previously thought, is becoming more and more unbelievable.

### REFERENCES

1. Palmer, D., 1995. First vertebrates went in for the kill. *New Scientist*, 146(1975):16.
2. Monastersky, R., 1996. Vertebrate origins: the fossils speak up. *Science News*, 149:75.
3. Gould, S. J., 1995. Of it, not above it. *Nature*, 337:681-682.
4. Gould, Ref. 4.
5. Gould, Ref. 4, p. 681.
6. Sansom, I. J., Smith, M. M. and Smith, M. P., 1996. Scales of thelodont and shark-like fishes from the Ordovician of Colorado. *Nature*, 379:628-630.
7. Monastersky, R., 1996. The first shark: to bite or not to bite? *Science News*, 149:101.
8. Carroll, R. L., 1988. **Vertebrate Paleontology and Evolution**, W. H. Freeman and Company, New York, p. 85.
9. Cai, C. Ouyang, S., Wang, Y, Fang, Z., Rong, J., Geng, L. and Li, X., 1996. An early Silurian vascular plant. *Nature*, 379:592.
10. Li, H., Taylor, E. L. and Taylor, T. N., 1996. Permian vessel elements. *Science*, 271:188-189.
11. Anonymous, 1996. The world's oldest flower. *Science*, 271:1237.
12. Williams, M., 1996. Jurassic birds earn their wings. *New Scientist*, 149(2012): 16.
13. Aldhous, P., 1995. It's the early bird that fits the bill. *New Scientist*, 148(2000):19.
14. Williams, Ref. 12.
15. Baiter, M., 1996. Cave structure boosts Neandertal image. *Science*, 271:449.

M. J. Oard

## Lost World of Mutants' Discovered

In 1986, construction workers unexpectedly drilled into the Mobile Cave, close to the western (Romanian) coast of the Black Sea (see Figure 1). A 'secret kingdom of strange creatures' was revealed — a group of living things that have clearly been cut off from the outside world for many generations. They are found in air-pockets which can only be reached by diving. Forty-seven species altogether have been studied by a Romanian scientist, Serban Sarbu, who escaped the communist dictatorship and has only recently been able to resume his work. They include such things as spiders, leeches, millipedes, pill bugs, flatworms, mites, beetles, and water dwellers such as water scorpions and nematode worms.

The unique thing about the ecosystem within which these creatures function is that they do not depend, even indirectly, on the energy of sunlight. The entire community appears to be fuelled by energy from the metabolism of hydrogen sulphide, carried out by dense mats of bacteria which live on the cave walls. These bacteria produce sulphuric acid, which incidentally carves out increasing volumes of space in the limestone.

The bacteria are eaten by creatures higher on the 'food chain' which are



Figure 1. Location of the Mobile Cave, Romania.

then eaten by others, and so on. There is no photosynthetic vegetation at all.

Air can seep in through tiny fissures, but the atmosphere is very different from outside, with 100 times as much CO<sub>2</sub>, one tenth the level of oxygen, and a lot of foul-smelling 'rotten egg gas', hydrogen sulphide, produced by natural sulphur springs. The animals scuttle for cover when they detect a change in oxygen levels.

All of them have the condition known as troglomorphy — a loss of colouring pigment, giving them a pale-yellow appearance. All are born blind, with the exception of one spider which is born with the usual eight eyes. However, these degenerate as it

matures, so that it is blind as an adult.

Many have large antennae which assist them to find their way around in the dark.

### A CREATIONIST UNDERSTANDING

The obvious explanation would be similar to the standard evolutionary interpretation, except for the time-scale. Genetic loss through mutation is an integral part of the creation model, whereas molecules-to-man evolution requires huge volumes of new, functionally more complex information to arise.

It is important to understand that the loss of characters such as eyes and pigment does not arise from disuse as such, although most of the public will surely see it in such Lamarckian terms. (Modern biologists, whether creationist or evolutionist, overwhelmingly disown such beliefs. The giraffe's neck cannot get progressively longer from stretching over generations, nor shorter from lack of stretching.) Use and disuse do not cause changes which can be inherited — that is, there is no change in the DNA code as a result of use and disuse of bodily parts.

Let's look at the likely course of events.