

southern France.¹⁵ 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 Neanderthal image. *Science*, 271:449.

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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 CO₂, 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.

Loss of Pigment

Many cave dwellers have long been known to show this. If a creature living in the normal, outside world was to have a mutation causing a loss of its pigment, it would normally be less able to survive, losing some protection against sunlight. However, in a cave without the Sun, such a mutation can readily spread through the population.

These recently-discovered Romanian creatures are thus almost certainly the descendants of previously pigmented ancestors cut off from the outside perhaps thousands of years ago (not 5 million, as evolutionists speculate in this instance).

Loss of Eyes

Blind fish, with scars where eyes normally appear, have long been known to exist in certain caves. A mutant gene damaging the genetic information for eye manufacture would have no selection pressure opposing its spread in a lightless environment. In addition, there may well be a selective **advantage** to such a loss/defect, as follows.

Eyes are complex structures, prone to disease and injury. A fish with eyes which bumped into a cave wall in the dark may damage the eye surface, introducing infection leading to death. The acidic environment would also be detrimental to eye health. After many hundreds of generations, the eyeless gene would confer a slight but significant selective advantage. In the thousands of years since the Flood, the Romanian cave-dwelling creatures have had time to go through a huge number of their short generational life cycles, allowing them plenty of time for maximum adaptation to their new environment. This adaptation is based, however, on

- (1) the original created information, and
- (2) adaptive losses/defects from mutation since creation.

Large Antennae

What about the huge, sensitive feelers some of these creatures apparently have? These are clearly adaptive to their dark environment. In addition, there are probably a host of other specialised features which have not yet been described, as so far only newspaper reports (admittedly quite detailed) of conferences have been available to us.

Creationists would generally claim that it is vanishingly improbable that completely new biological apparatus involving teleonomy (project-oriented functional complexity) will ever arise *de novo* from natural law — that is, chance copying mistakes/mutations in the first instance, to be subject to the filter of natural selection.

A population may respond to environmental selection pressure based on information already present in its total gene pool. For instance, if a population of plants in a moist environment is exposed to ever-increasing dryness, only those plants carrying genes for deeper roots and waxier cuticles will survive. The population will have 'responded' and become 'adapted', but only because the genetic information coding for waxier cuticles and deeper roots was already present.

Therefore, a reasonable postulate regarding any of the adaptive features of these cave creatures is that

- (a) they are indeed the descendants of similar creatures from the 'outside' which became trapped (perhaps progressively) and cut off from the parent population; and
 - (b) they already had the genetic information for feelers/antennae.
- Individuals which (rarely) inherited the combination of genes for **oversize** feelers would be at a disadvantage 'outside', but would be selected **for** in this world of darkness. Perhaps a mutational defect involving a loss of control (or loss of 'switch-off of

growth) of feeler size during development might have been involved in at least some, leading to giantism in an existing structure, which is inherited.

There is clearly no way in which, and no need to postulate that, these feelers themselves, with all their complex associated sensory and control mechanisms, arose by mutation in creatures which previously had no such information in their genes.

The Ecosystem

Creationists sometimes point to complex predator-prey relationships, food chains, etc., as examples of creative design. While this is certainly feasible in many cases, even likely, it appears unlikely that the particular food chain in this case was the **direct** result of original creative design; at least, not created for that purpose. Rather, it probably arose as a result of each member being forced to survive on what it could, an adaptation (of an earlier ecosystem) based on necessity.

SUMMARY

Complex information is never seen to arise from natural law, which is the very core claim of evolution. These Romanian cave creatures show no evidence of having 'evolved' such information. However, they can indeed be described as 'strange mutants' — the offspring of non-cave-dwellers which demonstrate the results of selection and degenerative change, not upward evolution.

REFERENCES

1. **Daily Mail**, London, 15 February, 1996.
2. **The Times**, London, 14 February, 1996, p. 6.
3. **Daily Express**, London, 15 February, 1996, p. 14.
4. **The Independent**, London, 14 February, 1996, p. 1.

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