

years after the postulated 'big bang'. The finding points to the Local Group dwarf galaxies being young, and not billions of years old.

### References

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## Does a 'transitional form' replace one gap with two gaps?

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At times, creationists are ridiculed for pointing to gaps in the fossil record, because, it is alleged, the finding of a 'transitional form' means that one can now argue that there are *two* gaps whereas before there had been one. To begin with, this argument is very disingenuous, if only because it tells us nothing about the degree of *morphological* discontinuity remaining if two smaller gaps do in fact replace one larger one.

Consider if, as an extreme example, the only organisms in existence were yeasts, earthworms, and humans. From the standpoint of ancestor-descendant relationships, evolutionists could state that the last common ancestor of earthworms and humans was more recent than the last common ancestor between Kingdom Animalia and yeasts (Kingdom Fungi). While it is obvious that, in a sense, earthworms do 'bridge the (one) gap' between yeasts and humans, the fact nevertheless remains that the two gaps which now exist (between yeasts and earthworms, on the one hand, and between earthworms and humans, on the other) nevertheless are very large. So, while it is technically correct that there are now two smaller gaps instead of one large gap, this has little practical meaning because of the huge discontinuities remaining between the three forms of life.

The same holds for cladistic relationships. Nowadays, evolutionists deal with cladograms (branching diagrams which are supposed to show relative degree of relatedness among living things) rather than ancestor-descendant relationships. On a cladogram for the example above, the yeasts would branch off at a node before the one where the earthworms branch off from humans. But this branching pattern would tell us little. In fact, as before, it would only obscure the huge morphological

discontinuity which exists between yeasts, earthworms, and humans.

Although I intentionally made the example above extreme in order to make the point, the same considerations apply to more conventional depictions of alleged evolutionary transitional forms. In particular, as long as such things as half-legs/half-wings, or three-quarter scales/one-quarter feathers, are not found as fossils, the discontinuities among such things as reptiles and birds remain large. This remains the case whether or not some 'transitional' fossil can be thought of as replacing one larger gap into two smaller but nevertheless still large gaps.

Finally, let us examine the one-gap, two-gap premise in the light of cladogram construction. Can this one-gap, two-gap argument be levelled *only* against creationists? Certainly not. Consider what happens when allegedly transitional forms are found:

*'It might be expected that the addition of new fossil finds and reanalysis of older ones would improve the fit of age data to a fixed sample of cladograms, by the filling of gaps and by corrections of former taxonomic assignments. ... In other words, as a result of 26 years of work, new discoveries and reassignments had improved the fit in 20 % of cases, but caused mismatches of clade and age data in a further 20 % of cases. Sometimes a new fossil does not fill a gap, but creates additional gaps on other branches of a cladogram [Emphasis added].'*<sup>1</sup>

Clearly, then, to the extent that the 'two gaps whereas before there was one' has validity, it is a double-edged sword. It impacts evolutionary thinking no less so than creationist thinking. As a result, if they want to be intellectually honest, evolutionists should realize that they cut themselves with the double-edged sword everytime they level the 'two gaps whereas before there was one' argument against creationist scholars.

Of course, it must also be remembered that the very cladistic methodology currently in vogue among evolutionists tends, by its very

nature, to de-emphasize the presumed status of (alleged) transitional forms which are so widely touted by the liberal media:

*‘Remember that although a living individual must have had ancestors, fossils are unlikely to represent any of them. Even if a fossil was an ancestor, we will never know this — we can never know with certainty what happened in the past. Accepting that fossils are not ancestors also means that there are no “missing links” in the fossil record because fossils cannot be ordered, as traditionally depicted, into an evolutionary lineage. There is no ladder of life. Most, if not all, fossils lie on the dead branches of the tree of life, and we must remember that most of our tree of life is dead, with only a few green living leaves at the tips of the branches.’<sup>2</sup>*

But why just discard the false ‘ladder of life’ concept when it is also so easy, based on the empirical evidence, to dispose of the tree of life altogether? Once the lack of major transitions is acknowledged, one must face the fact that there is no tree of life because there are no roots, no trunk, no boughs, and no medium-sized branches. There are only mutually disjointed bushes, and even these consist exclusively of variation only within the kind, and this is almost invariably within the family unit of traditional taxonomy. The scientific creationist needs to only reject organic evolution before being in hearty agreement with the foregoing cited statements.

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## Lagar Velho 1 child skeleton: a Neandertal/modern human hybrid

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An extraordinary human fossil discovery in Portugal — the almost complete skeleton of a four-year-old child — has turned out to be even more remarkable than was first thought.

The fossil skeleton was found in early December 1998 buried in a rock shelter in the Lapedo Valley about 140 km north of Lisbon. Now known as Lagar Velho 1, the remains are thought to be about 24,500 years old, based upon accelerator mass spectrometry radiocarbon dating of charcoal, and *Cervus elaphus* (deer) bones directly associated with the burial. The discovery team was led by João Zilhão of the University of Lisbon, who is director of Portugal’s Institute of Antiquities. The skull of the child had been crushed by earth removal equipment in 1992. That excavation came within centimetres of destroying the remains. However, the same excavation that crushed the skull is what exposed the site for its later discovery.

The skeleton was covered with red ochre and had been buried with ceremony. Found in association with the skeleton were charcoal, tools, and a pierced marine shell, probably a pendant, lying near the throat of the child. Animal bones lay near the head and the feet. It seemed to be a typical early Upper Paleolithic burial of a modern human. In contrast to the weak, round chin (mentum) of the Neandertals, the chin of the child was very protruding. A square, protruding chin is almost diagnostic of modern humans, and the first reports referred to the discovery as that of an ‘early modern human’.<sup>1</sup> (The term ‘modern human’ is more a ‘morphological’, or ‘shape’, distinction than it is a ‘time’ distinction.)

However, when Neandertal authority Erik Trinkaus (Washington University, St Louis) loaded the skeleton’s

measurements into a computer, the results revealed that the child had a mosaic of features— some distinctly Neandertal and others distinctly early European modern human. The child’s chin, jaw, small front teeth, and arm bones resembled early modern humans. The stocky torso, the short legs, and the muscle attachment scars (especially the scars of the pectoralis major muscle in the chest) were astonishingly Neandertal-like.

Evolutionists acknowledge that Neandertals and early modern humans coexisted in parts of Europe for thousands of years. This skeleton is considered to be the first hard evidence of a genetic mixing. ‘*This is not one Neanderthal and one modern human making whoopee in the bushes*’, states Trinkaus.<sup>2</sup> He is convinced that the mixture of features in this child could only be the result of prolonged genetic exchange, and that the Neandertals were just one of a number of human tribes living in the Stone Age.

In the same issue of *The Proceedings of the National Academy of Science* that Trinkaus, Zilhão, and their associates published their findings,<sup>3</sup> there was a commentary by Ian Tattersall (American Museum of Natural History) and Jeffrey Schwartz (University of Pittsburgh) suggesting that the skeleton was just ‘*a chunky Gravettian (early modern human) child*’. This commentary resulted in a firestorm of reaction intensifying what has been called the ‘Neandertal wars’. Trinkaus claims that ‘*the gist of the commentary is that he and his colleagues don’t know what they are talking about*’.<sup>4</sup> Tattersall responded that he was saddened that Trinkaus had chosen to portray him and Schwartz as intellectually dishonest and as being on a mission to denigrate the Neandertals.

The ‘Neandertal wars’ involve a long-standing and intense debate among evolutionists regarding the nature and status of the Neandertals and their place in human history. That there should be a ‘Neandertal war’ at all is astounding. The human fossil record has always strongly supported the fact that the Neandertals were a part of the human family. There is