

REVIEW

Post-modernism in pseudoscience:

a creationist's deconstruction of Gish

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Jones of Contention: a Creationist Assessment of Human Fossils, Marvin L. Lubenow. Baker Book House. Grand Rapids MI. ISBN 0-8010-5677-2. Obtainable for \$18 from Creation Research Centre, PO Box 260, Capalaba Qld., 4157.

Creationists are bound to fare rather poorly on human evolution. The fossils form such a neatly graded series, getting less and less ape-like and more and more human as they get closer in time to the present, that the most earnest creationist can do little more than muddy the waters by inflating and distorting the existence of points of disagreement between specialists, or trying to revive long since discredited *Homo sapiens* specimens once claimed to have been from extremely ancient deposits.

To my knowledge, only two have, up to now, tried to demolish the idea of human evolution in any depth (for want of a more accurate phrase): Duane Gish and Malcolm Bowden. Bowden (who appears in the flesh in one of the *Origins* films) has at least done some original research in Piltdown, and tried, if not very convincingly, to think up reasons why this or that key fossil is not what it seems. Somehow, creationists seem not to take much notice of Bowden; Gish is the inevitable source. Gish has such a way with the evidence, after all. Australia's home-grown creationists try their best, but no-one can quote a scientist's words out of context quite the way Gish can; no-one can quite so brazenly cite a twenty-year-old source as if it were bang up-to-date; ; no-one can use the bracadabra effect with quite such panache; no-one can so authoritatively present black as white, white as black. So, Gish is the master, the source.

Until now. Until Marvin L. Lubenow. Creationists are going to sit up and take notice of this one. First of all, it will get read and widely cited - he has not made Bowden's mistake of not being American. Second of all, it actually has read much of the original literature on human evolution (even if he has not quite understood it all). Above all, he does not try to conceal the fact that human fossils are abundant, in fact he stresses it: by his "conservative estimate" more than 6,000 fossil proto-human individuals have been discovered up to now (p

32). This is a good start; one plunges into the body of the book with spirits soaring, anticipating an intellectual cut-and-thrust. One is disappointed.

On pp 46-7 Lubenow tries to explain evolutionary theory. He recounts what he sees as the differences between evolutionary gradualism and punctuated equilibria, though not in any depth; nor does he mention the adaptationist/neutralist controversies, instead assuming that everyone accepts the strict Darwinian model. His chain of oversimplifications leads him into a glaring *non-sequitur*: "It is thus basic to evolution that if species B evolved from species A, that species A and species B cannot coexist for an extended length of time". Ungrammatical, and inaccurate; yet time and again throughout the book he appeals to this supposed corollary of evolution to argue that, because there is coexistence between a supposed ancestral species and *Homo sapiens*, the relationship cannot actually be ancestor-descendant.

So reliant is he on this misunderstanding as a potent dragon-killer, that he drags out one dragon after another to be slain by it. The date of the famous Taung Child, the earliest discovered specimen of *Australopithecus africanus*, is believed by some specialists to be only some 0.75 million years old; other specialists disagree, but Lubenow insists on his 0.75 because that makes it later in time than its putative descendants in the genus *Homo*, therefore it can't be their ancestor. The Kanapoi Elbow, dated at 4.5 million, is "fully human", so all these australopithecines and whatnot cannot be ancestral to us because a modern human was already in existence; his thorough - or, let us say, thoroughly selective - combing of the literature has overlooked a paper by Marc R Feldesman (1982, *American Journal of Physical Anthropology*, 59:73-95) which finds that Kanapoi is very far from being modern human. He several times tabulates dates for *Homo erectus* and *Homo sapiens*, to show that they overlap widely in time, therefore the former cannot be ancestral to the latter.

This last point is obviously his *pièce de résistance*, and he returns to it again and again. Where a particular fossil is in dispute, he accepts whichever interpretation of it will suit his theme (he accuses "evolutionists" of

doing this often enough, but seems quite unaware that he is doing it himself). Middle Pleistocene African and European fossils such as Petralona, Mauer, Nduetu, Vertesszöllös, Arago, Bodo, Saldanha and Kabwe are classified as *Homo sapiens* by some authorities and as *Homo erectus* by others, but they are early in time (some hundreds of thousands of years old), so Lubenow accepts the *Homo sapiens* designations. A variety of Late Pleistocene Australian fossils, such as those from Kow Swamp, have been said to be *Homo sapiens* but retaining certain *Homo erectus*-

like features, which Lubenow distorts by saying that they are fully *Homo erectus*. Bingo! By semantic sleight-of-hand *Homo erectus* and *Homo sapiens* become contemporaries over 700,000 years.

The fact is that one school of thought ("Regional Continuity") believes that all Middle Pleistocene *Homo* were really a genetic continuum, ancestral as a whole to modern humans; another ("Replacement") believes that only the

African ones were our ancestors, and the others more or less died out, replaced by the newcomers from Africa. If you adhere to the first school, it is clearly quite arbitrary where you draw the line between *Homo erectus* and *Homo sapiens*, or you may care to do away with *erectus* altogether and call the lot *sapiens* (with more archaic, less archaic, hardly-archaic-at-all and state-of-the-art-modern grades, as many as you think adequately characterise the evolving continuum). If you are a Replacementist, like me, you will restrict the concept 'archaic *Homo sapiens*', or whatever you want to call it, to the ones that are very likely our ancestors, and the others (the Chinese and Indonesian fossils, mainly) will be a separate clade, *Homo erectus*. All this business of taxonomy and nomenclature, clades and grades, Continuity and Replacement, is probably a bit too much like science for any creationist, for whom a rose by any

other name would not smell sweet at all.

There is little actual description of anatomy in this (or any other) creationist writing. Actually, this is just as well considering the games Lubenow plays with cranial capacity (more or less equals brain size). "The human brain varies in size from about 700cc to about 2000cc" he says on p 83 [therefore a fossil with a capacity of only 700cc is a perfectly normal human, see?], figures he ascribes to Stephen Molnar (1975, *Races, Types and Ethnic Groups*). Molnar actually hedged his figures

about with qualifications, e.g. "there are many such persons [ie intellectually normal] with 700 to 800cc capacities" (2nd ed, p 10). Any reader of Molnar's book who has a modicum of biological training will know about normal curves - the probability of occurrence of a given figure, be it human stature, brain size or anything else - diminishes steeply the further it is from the mean value. The probability of occurrence of a 700cc cranial capacity in a modern person must be

rather tiny, given that mean capacity for the species as whole is about 1450cc.

Perhaps we can calculate just how tiny. Mean cranial capacities vary from one human population to another, dependant on such things as body size and, curiously, climate. The smallest mean cranial capacity I know of is for a sample of 15 South African "Bushmen". recorded by Slome in 1929 (see JA Keen, 1952, *Ann S Afr Mus* 37:211-226). They had a mean of 1159cc, with a standard deviation of 118.93. Now, our statistical books tell us that one standard deviation on either side of the mean includes 68.26% of the population, two standard deviations include 95.46%, three include 99.73%, four include 99.99366%... Now, 700cc is very nearly 4 standard deviations away from the Bushmen's mean of 1159. One individual in 30,000 will be, statistically, beyond (below or above) the 4 standard deviation limits,

	Gish, 1985	Lubenow, 1992
<i>Homo habilis</i>	all are apes (p.168)	some human, some not (p.165)
Skull ER 1470	"may not have been human-like at all" (p.168)	"true human status" (p.162)
Locomotion of australopithecines	probably more like oranges (p.179)	different from any other primate (p.168)
Javanese <i>Homo erectus</i>	An ape "possessing no genetic relationship to Man whatsoever" (p.184)	"a true member of the human family, a post-Flood descendant of Adam" (p.87)
Zhoukoudian ("Peking Man" site): Identity of the <i>H. erectus</i> fossils	Monkeys: macaques or baboons (p.199)	<i>Homo sapiens</i> (p.136)
The site	"little evidence that a cave existed" (p.197)	No apparent dispute that it was a cave (p.30)
All that remains of original fossils	"Models" (p.195)	Casts of "excellent quality" (p.16)

Two competing creationist views of the human fossil record

ie one in 60,000 will be below. In the *Homo sapiens* population with the smallest reported cranial capacity, about one person in 60,000 can be expected to have a brain size (*sensu* Lubenow) of as little as 700cc. You can perform a similar calculation to find out what proportion will have a size of 800cc, and so on. The chances of finding even one such individual as a fossil is remote. It is far, far more probable that the various fossil *Homo* that have cranial capacities of this general size were normal-ish representatives of small-brained populations.

The rest of the complex anatomical changes that are observable in human evolution are subsumed under one heading: pathology. Rudolf Virchow in 1872 argued that the bones from Neandertal were those of a normal human being, deformed by rickets; the idea was revived by Francis Ivanhoe in 1970. It has not received wide support, mainly because the skeletons of people who suffered from rickets, even very severe rickets, simply do not resemble those of Neandertalers. Gloriously ignorant of this simple fact, and relying entirely on the authority of Virchow and Ivanhoe (which by p.156 has become a "large body of evidence"), Lubenow goes right ahead and proposes that not only Neandertalers but even *Homo erectus* were modern human beings deformed by rickets! The one case where a nongenetic factor (artificial cranial deformation) has indeed been plausibly argued to be responsible for a superficially archaic skull appearance (Kow Swamp and some other Australian fossils) he dubs "contrived" (p 155). Of course he would; he needs Kow Swamp to be a late-occurring *Homo erectus* (in order to prove that *erectus* was not earlier than *sapiens*, and indeed has already misquoted their describer, Alan Thorne, to that effect.

And so it goes on. *Homo habilis* is argued out of existence altogether; the famous East African skull, ER 1470 (which some, but nowadays by no means all, authorities class with *Homo habilis*) somehow becomes a modern human representative. Australopithecines are, of course, dismissed on the evidence of Charles Oxnard (a noted Western Australian anatomist, who in fact is the first to admit that his view of this series of fossils is uniquely his own). We have the obligatory tale of those early failures of potassium-argon dating - as if the errors made by the early practitioners of any method somehow invalidate the whole enterprise. And not just the evolution of our species - in Chapter 18, even the Big Bang gets a serve. (Perhaps a cosmologist would like to comment on his treatment of this theme: unlike Lubenow, I would hesitate to step into an unfamiliar field). And in Chapter 19, there he is rewriting the history of ancient civilisation.

As for Chapter 20, "Adam and the Evangelical" - well, I do enjoy reading fantasy, and here is a world every bit as self-contained, internally consistent and unrelated to reality as Terry Pratchett's Discworld or Douglas Adams' Long Dark Teatime of the Soul.

Maybe my readers are getting restless by this point. "Where is Duane Gish?" I hear them cry. Well, he is there, on page 9: "John Whitcomb and Duane Gish read the manuscript and offered valuable comments". He is mentioned just twice more in the entire book, as having held debates with "evolutionists". Not, ever, as an authority. In fact, if you remember your Gish as you read Lubenow, you begin to get the feeling that Lubenow has a rather low regard for Gish. Both creationists they may be, but their interpretations of palaeontology are diametrically opposed.

I have listed the more striking differences in the Table. Gish, for a start (as in Chapter VI of *Evolution: the Challenge of the Fossil Record*), downgrades the fossil evidence; he never says exactly how many specimens were discovered of a given fossil type, but by his use of antiquated terms like "Java Man" and "Peking Man" he is clearly inviting the reader to assume that there is just one, or not many. Lubenow, as we have seen, stresses the very large numbers of specimens. Gish says that all the "Peking Man" specimens were lost during the war, and the only evidence of them that we now have are some models; Lubenow agrees that these "models" are actually high-quality casts, and that some further fragments have been discovered. But the most striking difference is that, for Gish, skull ER-1470 and the *Homo erectus* fossils are apes or monkeys; for Lubenow, they are fully and completely human.

I find it rather easy to distinguish a modern human skull from that of an ape or monkey. It is not something with which, in my experience, university or even school students have much difficulty either. Yet Gish and Lubenow cannot agree which is which. If one is right, the other is hopelessly incompetent. If Lubenow is right, Gish should be withdrawn from the debating circuit right away, for he is a liability to the creationist cause. If Gish is right, the Institute for Creation Research ought to recall all copies of Lubenow's book, and pulp them, for they are going to mislead the troops. Either way, any intelligent creationists (sorry, oxymoron there) are going to get mightily confused and, heaven forbid, the following thought may flit across their minds:

"If two eminent authorities cannot agree whether these skulls are human or ape, does this not imply that they are, um, intermediate?"