

Lunatics, Lucy and a little book for the school library

A review of
Making Friends with Fossils: How to find your way through the maze of human origins
by Helen Lawrence
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In their ongoing enmity to the true biblical understanding of our origins, the Australian Skeptics have donated copies of Helen Lawrence's booklet, *Making Friends with Fossils: How to find your way through the maze of human origins*, to schools across Australia. This easy-to-read and engaging 'science' book is aimed at undermining a biblical worldview and indoctrinating children into the belief that we are a cosmic accident of evolution; a chance rearrangement of organic molecules, with no purpose and no meaning. In penning the foreword, Colin Groves notes:

'It is important for us to know where we came from and how we got here and that *we are not so special* ... yet there is so much misunderstanding about human evolution that it is all too easy for the *lunatic fringe* to bend the evidence and mislead the unwary' [emphasis added].¹

The seeds of disbelief in the divine Creator are being purposely sown in our schools from the youngest ages in the name of 'science'.

Unbiased seekers of the truth?

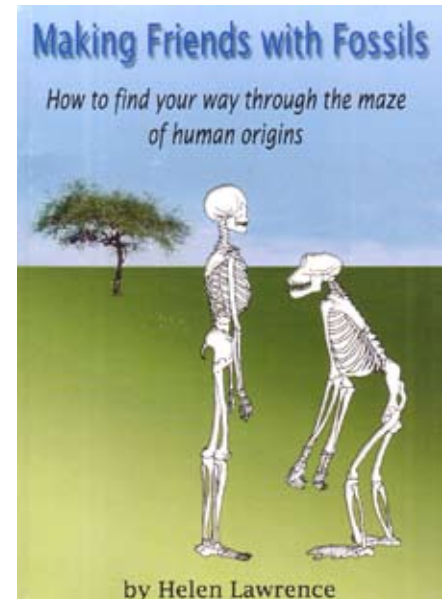
In the introduction, *Making Friends* espouses the idea that '... the people who pursue the chase for knowledge in this field [evolutionists]

are after just one thing—to find out the truth.' This position is contrasted with those 'who ignore the underlying knowledge'. However, this sets up a strawman contrast of the unbiased truth seeker that 'knows' the 'true' evolutionary story with the biased, ignorant creationist who rejects it. But it comes unstuck when one reads the words of paleoanthropologist Donald Johanson, the discoverer of Lucy (*Australopithecus afarensis*—the subject of chapter 1). Johanson is not aware of these mythical 'unbiased truth seekers':

'There is no such thing as a total lack of bias. I have it; everybody has it. The fossil hunter in the field has it. ... In everybody who is looking for hominids, there is a strong urge to learn more about where the human line started. If you are working back at around three million, as I was, that is very seductive, because you begin to get an idea that that is where *Homo* did start. You begin straining your eyes to find *Homo* traits in fossils of that age. ... Logical, maybe, but also biased. *I was trying to jam evidence of dates into a pattern that would support conclusions about fossils which, on closer inspection, the fossils themselves would not sustain*' [emphasis added].²

Johanson went on to confess, 'It is hard for me now to admit how tangled in that thicket I was. But the insidious thing about bias is that it does make one deaf to the cries of other evidence.'³

Lawrence, herself, is not afraid to do a bit of evolutionary imagining about the central character of chapter 1, 'Lucy must have fed on entrails and got blood and guts all over her until she had a dip in the lake' [p. 5]. An amazing story, but what is the evidence that this is the 'truth'?



Lucy's pelvis and gender

Lawrence asks the important question of how Lucy's discoverers knew she was female, and informs us that her (Lawrence's) qualifications in obstetrics and gynaecology have helped her 'to appreciate birth mechanisms'. From the diminutive size of the pelvis, Donald Johanson and others interpreted Lucy (fossil designation AL 288-1) as being a female.⁴ But as Hausler and Schmid discovered:

'The sacrum and the auricular region of the ilium are shattered into numerous small fragments, such that the original form is difficult to elucidate. Hence, it is not surprising that the reconstructions by Lovejoy and Schmid show marked differences.'⁵

In regard to Lucy's pelvis, Johanson affirmed:

'Lucy's wider sacrum and shallower pelvis gave her a smaller, kidney-shaped birth canal, compared to that of modern females. She didn't need a large one because her newborn infant's brain wouldn't have been any larger than a chimpanzee infant's brain.'⁶

That admission begs the question as to why this fossil was not categorized within the chimp family. But this gender declaration poses

additional problems for Lucy. As Hausler and Schmid noted:

‘If AL 288–1 was female, then *one can exclude this species from the ancestors of Homo* because its pelvis is certainly less primitive than the pelvis of Sts 14’ [designation for a specific *Australopithecus africanus* fossil that is supposedly a descendant from Lucy, emphasis added].⁷

Both of the pelvises mentioned displayed some degree of damage, and both were missing critical parts. However, it should be noted that, in regard to the Lucy fossil, more than one attempt was made at reconstruction.

The reconstructions of the inlet and midplane of Lucy’s pelvis, and comparisons to other fossils and modern humans, reveal that the shape of Lucy’s pelvis was *not structured correctly to give birth*. The pelvis was just too narrow to accommodate an australopithecine fetus. Hausler and Schmid noted that Lucy’s pelvis was ridgeless and heart-shaped, which means that ‘she’ was more likely a ‘he’. They noted:

‘Contrary to Sts 14, delivery in AL 288–1 would have been more complicated than in modern humans, if not impossible, due to the protruding promontorium Consequently, there is more evidence to suggest that AL 288–1 was *male* rather than *female*. A female of the same species as AL 288–1 would have had a pelvis with a larger sagittal diameter and a less protruding sacral promontorium Overall, the broader pelvis and the more laterally oriented iliac blades of AL 288–1 would produce more favourable insertion sites for the climbing muscles in more heavily built males ... *with such a pelvis, “Lucy” would apparently have been the last of her species*’ [emphasis added].⁸

This declaration has received an enormous reaction from the evolutionist community, as many scientists work diligently to defend Lucy. If Hausler and Schmid’s conclusion is correct, then the equivalent female of this species would have been even

smaller—something unheard of in trying to compare this creature to modern humans! Lucy’s pelvis is not what it should be for an upright-walking hominid—but the dimensions *do* fall within *primates* found among the ape family. Why was this scientific truth ignored?

Lucy’s rib cage

Due to the impossibility of reconstructing Lucy’s skull from the few fragments available, the determination that Lucy walked upright (like a human) had to be derived from her hips and ribs. Peter Schmid, a paleontologist at the Anthropological Institute in Zurich, Switzerland, studied Lucy for quite some time, and summarized his efforts as follows:

‘When I started to put the skeleton together, I expected it to look human. Everyone had talked about Lucy as being very modern, very human, so I was surprised by what I saw. I noticed that the ribs were more round in cross-section, more like what you see in apes. Human ribs are flatter in cross-section. But the shape of the rib cage itself was the biggest surprise of all. The human rib cage is barrel shaped, and I just couldn’t get Lucy’s ribs to fit this kind of shape. But I could get them to make a conical shaped rib cage, like what you see in apes.’⁹

It is true that ribs can be ‘tweaked’ and rotated so that they appear more barrel-like or conical, but the best (and correct) arrangement will always be the original morphology. The facets from the ribs that line up on the vertebrae provide a tighter fit when aligned correctly. In Lucy’s case, its ribs were conical, like those found in apes.

Lucy—walking, or swinging from the trees?

What do Lucy’s arms and legs tell us in regard to its locomotion? *Making Friends* tells us that Lucy ‘had long arms like a tree-clinging ape’ (p.

4). If Lucy were a biped, surely her upper and lower extremities would indicate an upright stance. Yet the bony framework that composes Lucy’s wrists may be the most telling of all. Brian Richmond and David Strait of George Washington University in Washington, D.C., experienced what many might call a ‘Eureka!’ moment while going through some old papers on primate physiology at the Smithsonian Institution.

‘We saw something that talked about special knuckle walking adaptations in modern African apes’, Dr Richmond said. ‘I could not remember ever seeing anything about wrists in fossil hominids. ... Across the hall was a cast of the famous fossil Lucy. We ran across and looked at it and bingo, it was clear as night and day.’¹⁰ Lawrence is aware of the anatomy of chimps wrists:

‘A chimp has a less flexible wrist, held habitually in a knuckle walking position, flexed with the arm pronated (back of arm facing forwards). A wrist needs a stiffer structure when it is used for taking weight in that position ...’ [p. 22].

However, Lucy is never mentioned in this discussion.

Richmond and Strait discovered that knuckle-walking apes have a mechanism that locks the wrist into place in order to stabilize this joint. In their report, they noted, ‘Here we present evidence that fossils attributed to *Australopithecus anamensis* (KNMER 20419) and *A. afarensis* (AL 288-1) retain specialized wrist morphology associated with knuckle-walking.’¹¹

Not only have Lucy’s wrists and arm bones been called into question, but there is also a mountain of evidence that demonstrates this fossil was better adapted for swinging through trees, like modern-day chimps. Lawrence was correct; Lucy’s arms were long, ‘like a tree-climbing ape’. So the natural question to ask is: Why was Lucy not considered just that?

Australopithecine balance—did Lucy walk uprightly?

Knowing that primary bipedalism is unique to humans, Fred Spoor and colleagues decided to evaluate the vestibular apparatus of the inner ear—an area designed to help coordinate body movements. Modern human locomotor activity requires that the vestibular apparatus of the inner ear be able to maintain body posture, even though we are constantly balancing all of our weight on very small areas of support. Anyone who has suffered vertigo knows firsthand just how crucial this area is for balance and everyday activities. Using high-resolution computer tomography, Spoor *et al.* were able to generate cross-sectional images of the bony labyrinth that comprised the inner ear. They wrote:

‘Among the fossil hominids, the earliest species to demonstrate the modern human morphology is *Homo erectus*. In contrast, the semicircular canal dimensions in crania from southern Africa attributed to *Australopithecus* and *Paranthropus* resemble those of the extant great apes.’¹²

With that single declaration, Spoor and his colleagues have drawn a line which unequivocally states that all fossils ‘dated’ as older than *Homo erectus* have ape-like morphology that allowed them to climb trees, swing from branches, or walk hunched over on their knuckles. Toward the end of her booklet, Lawrence observed, ‘As I understand it there is one major gap. This lies between the australopithecines and habilines’ [p. 62]. Spoor’s work shows the ‘truth’ that evolution has no evidence of a link between these groups.

Lucy—hominid or chimp?

When Lucy first arrived on the scene, news magazines such as *Time* and *National Geographic* noted that she had a head shaped like an ape, with a brain capacity the size of a



Museum displays of ‘Lucy’ are misleading. Note that the hands and feet look very human, but the actual bones have not been found. Bones from other Australopithecus specimens indicate a knuckle-walking ape.

large chimp’s—about one-third the size of a modern human’s. Adrienne Zihlman remarked, ‘Lucy’s fossil remains match up remarkably well with the bones of a pygmy chimp.’¹³ It should be no surprise then, that in Stern and Susman’s analysis of *A. afarensis*, they pointed out, ‘These findings of ours ... all seem to lead ineluctably to the conclusion that the Hadar hominid [Lucy] was vitally dependent on the trees for protection and/or sustenance.’¹⁴

Evolutionist, Professor Charles Oxnard of the University of Western Australia used objective ‘unbiased’ computerized multivariate analysis of many measurements on australopithecine bones.¹⁵ He (and an increasing number of other

researchers who are not associated with the discovery of any of these creatures) found that all of the australopithecines, grouped together anatomically, are further away from both apes and humans than these two groups are from each other. They conclude that the australopithecines were a unique group of extinct creatures, not anatomically intermediate between apes and humans, so were not evolutionary ‘links’ at all.

All of these facts point toward the truth that Lucy was simply an ape-like creature. Sadly, *Making Friends* ignores this truth in favour of evolution.

The ‘truth’ or evolutionary story telling?

Throughout the book, Lawrence weaves a tale of vast spans of time. In chapter two, she even works in an ancient age for the earth—making sure students are fully indoctrinated with evolutionary ages. She notes:

‘These proto-humans were dotted about the landscape for the immense time period of two million years, although this is nothing compared to the age of the earth at four and a half billion!’ [p. 10, emphasis in original].

Yet she never once mentions how often evolutionists have changed the dates for human evolution, and how it continues, even today, to be pushed back farther as additional time is needed to explain current findings.

In further distinguishing our alleged ancestors, Lawrence mentioned Sir Arthur Keith, an anatomist who set the brain volume marker for humans at 750 cubic centimetres (p. 11). Since Lawrence placed Ian Tattersall’s Human Evolutionary Tree on the back cover, one would expect her to be familiar with Tattersall’s observation regarding brain size:

‘... as it turns out, the concept of a gradual increase in brain size over the eons is actually rather problematic. For a start, this idea strongly implies that every ounce of extra brain matter is equivalent

in intelligence production to every other brain ounce—*which is clearly not the case*’ [emphasis added].¹⁶

No evidence exists that demonstrates a relationship between brain size and intelligence within any given species. The human brain, for example, is known to range in volume from less than 1,000 cubic centimetres to more than 2,000. In fact, some of the most intelligent people in history had small brains, while Neandertals, who are normally characterized by evolutionists as being of low intelligence, allegedly had larger brains on average than people today.

Yet evolutionists routinely classify hominid fossils largely according to brain size.¹⁷ The assumption is, of course, that the human brain started out in early primates as a relatively small, insignificant organ, and then evolved through time to the size it is now. But *why* should this be the case? That is the very question Stephen Jay Gould asked in the concluding chapter of his volume *Ever Since Darwin*:

‘But *why* did such a large brain evolve in a group of small, primitive, tree-dwelling mammals, more similar to rats and shrews than to mammals conventionally judged as more advanced? And with this provocative query I end, for *we simply do not know the answer to one of the most important questions we can ask*’ [emphasis added].¹⁸

I assume this ‘truth’ was not one of those mentioned in the introduction. Lawrence continued, noting, ‘Once a hominin could balance in the fully upright position, the mechanical advantage it gave them was apparently grabbed and used for its efficiency’ [p. 14]. But just seven pages later, she speaks of OH 62, who had ‘many of the attributes of a habiline, and yet, judging by those long arms, she appeared to have gone back to getting a living in the trees’ (p. 21). Why? How is such baseless evolutionary story telling classified as ‘knowledge’?

Toward the end of the second

chapter, *Making Friends* makes several telling comments, given the pledge for truth and knowledge. In the section titled *Did australopithecines make tools?*, it is noted, ‘The australopithecines **must have** used stones and digging sticks, but so far no *worked* stone tools have been found directly in association with them’ [p. 15, italics in original, bold emphasis added]. Translation, ‘Our theory predicts this to be true. And while we haven’t found any evidence to support it, we know it must be true.’ And further, ‘We can only speculate on whether a female had a particular male to offer her food in exchange for exclusive sexual rights’ [p. 16]. Speculate indeed! Is this science (from the Latin *scientia*, meaning ‘knowledge’) or speculative fiction?

Java Man

In chapter four, *Making Friends* introduces two individuals who, history has recorded, had skeletons in their closets: Ernst Haeckel and Eugene Dubois (p. 26). According to Lawrence, the zoologist Haeckel (infamous for his faked drawing of embryos used to support evolution)¹⁹ ‘had a hunch’ that inspired an ‘untrained, but enthusiastic’ Dubois to set out looking for another ‘missing link’. Later, in 1890, Dubois, now trained as an anatomist, focused his attention on the banks of the Solo River, near the village of Trinil in Indonesia. Excavators discovered a human-like fossilized tooth in September 1891. One month later, they uncovered the upper part of a skull. A year later, the team discovered a thighbone in the same sandstone layers, about fifteen metres upstream. In additional excavations, the team did not discover anything else except one tooth.

As it turns out, the leg bone and teeth were, in fact, human. However, Dubois claimed that Java Man had gibbon-like proportions. This was to fit in with his idiosyncratic view of evolution that demanded a precise correlation between brain size and body weight.³⁶ This view is universally discounted today.. Lawrence admits

that Dubois hid fossils under the floorboards of his house, but she blamed it on ‘pique’ (wounded vanity). What she does not tell school children is that below those floorboards were also other skulls—modern-looking skulls—that were found in the same level of strata, and would have surely put an end to Dubois’ precious Java Man.

Neandertal Man—distant cousin or merely human?

In her chapter on ‘Neanderthal Life’, Lawrence continues her imaginative speculations, telling school children that the Neandertal nose, being unusually large and prominent, was ‘a *climate-prompted mutation*. It was an air-warming defrosting device [p. 38, emphasis added].’ Certainly, natural selection can differentiate on existing mutations, but how does climate prompt a mutation? Are the discredited ideas of Lamarck part of this ‘underlying knowledge’?

Lawrence goes on to discuss the studies, which compared human mitochondrial DNA (mtDNA—which resides in the cell’s mitochondria, or ‘energy factories’) with mtDNA extracted from a Neandertal specimen.²⁰ Krings *et al.* suggested that fewer differences in the mtDNA exist between modern humans than exist between modern humans and the Neandertal specimen. Based on those differences, evolutionists have suggested that the Neandertal line diverged from the line leading to modern humans about 550,000 to 690,000 years ago, and that Neandertals became extinct without contributing any genetic material to modern humans through intermarriage. Much evolutionary mileage has been made of this suggestion,²¹ but what was the actual data? The Krings study compared various DNA sequences from 1,669 modern humans with *one* Neandertal. Statistically, this is not only insignificant, but also misleading. As Lubenow wrote concerning this mtDNA research:

‘Statistics has [*sic*] been used to cloud the relationship between Neandertals and modern humans.

It is improper to use statistical ‘averages’ in situations where many entities are being compared with only one entity. In this case, 994 sequences from 1,669 modern humans are compared with one sequence from one Neandertal. Thus, there is no Neandertal “average”, and the comparison is not valid’ [emphasis added].²²

The original study showed that the Neandertal individual had a minimum of 22 mtDNA substitution differences when compared to modern humans. *Yet mtDNA substitution differences among modern humans range from 1 to 24.* As Lubenow correctly noted:

‘That means that there are a few modern humans who differ by 24 substitutions from a few other modern humans—two substitutions more than the Neandertal individual. Would not logic demand that those few modern humans living today should also be placed in a separate species? To state the question is to reveal the absurdity of using such differences as a measure of species distinctions.’²²

Furthermore, as Maryellen Ruvolo of Harvard has pointed out,

the genetic variation between the modern and Neandertal sequences is within the range of substitutions within other single species of primates. She concluded, ‘... there isn’t a yardstick for genetic difference upon which you can define a species’.²³ Geneticist Simon Eastel of Australian National University, noting that chimpanzees, gorillas and other primates have much more intra-species mtDNA diversity than modern humans, wrote, ‘The amount of diversity between Neanderthals and living humans is not exceptional.’²⁴

Over the past several years, the scientific community has witnessed (not always to its liking, I might add) a serious ‘redefining’ of the Neandertal people. Some anthropologists of the past depicted them as culturally stagnant, if not outright stupid, individuals. In 1996, however, researchers were forced to re-evaluate their long-held views on Neandertals, due to the discovery of five different types of musical instruments, items of personal ornamentation (similar to our jewelry) and even the first example of a Neandertal cave painting.^{25–28} Furthermore, almost all anthropologists recognize burial rituals as a human trait and a distinctly religious act. That

being the case, the strongest evidence that the Neandertals were, in fact, human is that at four different sites where Neandertal fossils were found, *Neandertals and modern humans were buried together!*

‘That Neandertals and anatomically modern humans were buried together constitutes strong evidence that they lived together, worked together, intermarried and were accepted as members of the same family, clan and community. ... If genuine mtDNA was recovered from the fossil from the Neander Valley, the results have been misinterpreted.’²⁹

Archaeologist Randall White, of New York University, said, regarding the Neandertals, ‘The more this kind of evidence accumulates, the more they look like us.’³⁰ Indeed they do, supporting the idea that they are a group of people descended from Noah.

It should also be pointed out that the method used to determine the dating of the separation of modern humans and Neandertals is based on evolutionary assumptions about the fossil record to calibrate the ‘mutational’, or ‘molecular’, clock.³¹ Thus, Lawrence’s reasoning is not ‘underlying knowledge’ but circular, self-reinforcing propaganda.

Mitochondrial DNA—Lawrence hasn’t read the obituary

Chapter eight discusses ‘migratory/mitochondrial Eve’. Unfortunately for the students in Australia, *Making Friends* does not present current information regarding the scientific literature on mitochondrial Eve. On 1 January 1987 an article in *Nature* announced that modern human beings can trace their ancestry back to a single woman who lived 200,000 years ago in Africa.³² This one woman was nicknamed ‘Eve’ (a.k.a. ‘mitochondrial Eve’)—much to the media’s delight and subsequent hype.

However, things change rapidly in science, and studies have shown that not only is the calibration of mutation rates (giving the 200,000 years) unreliable,³¹



Photo by Marko Zaplati

This piece of hollowed bone, from a Neandertal archaeological site, is believed to be part of a flute, with the hole spacing conforming to the diatonic (do, re, mi...) musical scale.

but the concept of exclusive maternal descent of mtDNA is under question from the evidence of inherited paternal mtDNA.^{33,34} Mitochondrial Eve was once in vogue as ‘the woman of the moment’, so to speak, but now she has become virtually the ‘crazy aunt in the attic’ whom no-one wants to admit even exists.

Conclusion

While Lawrence may not want to admit it, human beings *are* special—we are extraordinarily unique. The fact remains that there are numerous different aspects that humans possess—which animals do not. And each of those aspects is not only significant, but also serves to separate man from the animal kingdom in a most impressive fashion. Consider, for example, the human ability to use language, educate and accumulate knowledge, creatively use art, music and writing, and to reason and make rational choices based on conscience. Though dwindling, humans still live by a God-given standard or morality, express heartfelt emotion and have an inherent religious inclination. Humans bear the spiritual imprint of God due to the fact that they possess an immortal soul.

Making Friends remains utterly silent in these important areas. Instead, it relies on scraps of bones, a few teeth and an evolutionary timeline, based on circular reasoning, in an effort to connect humans to ape-like creatures. It is not just an adequate explanation for the origin of life that eludes evolutionists. Nor is it merely the missing evidence from the fossil record. Evolutionists must also wrestle with the absence of a rational explanation for such critical components of the evolutionary theory as: gender and sexual reproduction and the origins of the brain and mind, which cannot be explained by natural selection.

Individuals seeking the truth are not afraid to investigate these areas.

Those wanting to lift the iron curtain of evolutionary theory, in order to examine the facts behind the dogma, are invited to read *The Truth About Human Origins* for an up-to-date discussion of these issues.³⁵ *Making Friends* tells readers that it is about the pursuit of truth. The time has come for the truth to be told.

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