

# Developments in paleoanthropology no. 2

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This paper continues the theme begun in 2021 of discussing some of the fossil finds and/or developments in paleoanthropology from a creationist perspective. This includes the naming of a new species, *Homo bodoensis*, as well as the discovery of a juvenile skull, attributed to *Homo naledi*, from the Rising Star cave system of South Africa. New fossil pieces from the lower back of *Australopithecus sediba* are also discussed, as is a new study on fossil footprints from Laetoli Site A, Tanzania. Lastly, the Omo fossils and their redating are examined.

## *Homo bodoensis* and the muddle in the middle

On 28 October 2021 Roksandic *et al.* published an article in the journal *Evolutionary Anthropology* titled: “Resolving the ‘muddle in the middle’: The case for *Homo bodoensis* sp. nov. [sp. nov. means new species]”<sup>1</sup> The Middle Pleistocene (apparently now renamed ‘Chibanian’), dated as a period between supposedly 129 to 774 thousand years ago (ka), is said to be important because it allegedly “saw the rise of our own species (*Homo sapiens*) in Africa, our closest relatives, and the Neanderthals (*Homo neanderthalensis*) in Europe.”<sup>2</sup> The article from The University of Winnipeg went on to state:

“However, human evolution during this age [the Middle Pleistocene] is poorly understood, a problem which paleoanthropologists call ‘the muddle in the middle’. The announcement of *Homo bodoensis* hopes to bring some clarity to this puzzling, but important chapter in human evolution.”<sup>2</sup>

Marshall commented:

“Roksandic and her colleagues want to make sense of the muddle. They argue that all the African fossils previously called *H. heidelbergensis* or *H. rhodesiensis* should be thought of as one species, *H. bodoensis*. This species, they argue, eventually gave rise to ours.”<sup>3</sup>

Furthermore, as stated by Marshall, Roksandic *et al.* “say *H. heidelbergensis* fossils found in Europe can all be reclassified as early Neanderthals, and that fossils from the eastern Mediterranean that don’t quite fit any of the species could represent interbreeding.”<sup>3</sup> Roksandic *et al.* suggested:

“... the poorly defined and variably understood hominin taxa *Homo heidelbergensis* (both sensu stricto [*sic*] and sensu lato) and *Homo rhodesiensis* need to be abandoned as they fail to reflect the full range of hominin variability in the Middle Pleistocene.”<sup>4</sup>

For *Homo heidelbergensis* sensu lato to be abandoned you cannot have the species existing in Asia. Hence, the authors also suggested that the “assignment of the Asian,

particularly Chinese, archaic hominins into *H. heidelbergensis* should be abandoned”, as “the Middle Pleistocene Asian fossils, particularly from China, likely represent a different lineage altogether.”<sup>5</sup>

As indicated, Roksandic *et al.* introduced a new Middle Pleistocene ‘hominin species’ that they said “represents the direct ancestor of *H. sapiens*”, and proposed “that this new species be based on the Bodo skull and thus be named *Homo bodoensis*.”<sup>6</sup> The Bodo 1 partial cranium (see figure 1; cranial capacity ~1,250 cc) is not a new discovery, having been found in Ethiopia in 1976, and is dated to allegedly about 600 ka.<sup>7</sup> It has previously been variously classified as “close to the *Homo erectus*-*Homo sapiens* transition”, *Homo sapiens rhodesiensis*, archaic *Homo sapiens*, and *Homo heidelbergensis*.<sup>8</sup> Apart from Bodo 1 (the holotype), other specimens in the proposed *Homo bodoensis* hypodigm include “Kabwe 1 (Broken Hill), Ndutu, Saldanha (Elandsfontein), Ngoloba (LH 18), and potentially Salé in Africa”, as well as the Ceprano cranium from Europe.<sup>9</sup>

The species name, *Homo heidelbergensis*, has been around for over a hundred years, being first associated with the Mauer mandible from Heidelberg, Germany.<sup>10</sup> However, there has been persistent taxonomic confusion associated with *Homo heidelbergensis*, a species name not taken very seriously until approaching the end of the twentieth century.<sup>10</sup> As an example of this lack of seriousness, no mention of the name *Homo heidelbergensis* is found in the text of a chapter (by Pilbeam) titled ‘Middle Pleistocene Hominids’, published in 1975.<sup>11</sup>

Fast forward to 2021, and the name *Homo heidelbergensis* is so common that prominent Christian philosopher and writer (and also evolutionist) William Lane Craig has suggested that Adam and Eve may “be plausibly identified as members of *Homo heidelbergensis* and as the founding pair at the root of all human species.”<sup>12</sup> Craig regards Genesis 1–11 as “Hebrew mytho-history”, narratives that “need not be read as literal history”, and believes that “Adam plausibly lived sometime between around 1 mya to 750 kya”.<sup>13</sup> In his book Craig also wrote, “surely we can get used to the



**Figure 1.** Cast of the adult Bodo 1 *Homo heidelbergensis* from Bodo, Ethiopia. It was recently announced as the holotype for the newly proposed species *Homo bodoensis*. (Photo: Peter Line)

idea that Adam and Eve looked like *Homo heidelbergensis* rather than us.”<sup>14</sup> I have no issue with Adam and Eve being ‘robust’ humans,<sup>15</sup> and hence possibly looking like *Homo heidelbergensis*. However, Craig’s acceptance of evolution (including human evolution), with its eons of death and suffering before sin, as well as some of his other views for example, that Adam lived at least 750 ka and that Genesis 1–11 “need not be read as literal history”, makes his take on Adam untenable from a biblical perspective and impossible from a scientific viewpoint.<sup>16</sup> For more detail on Craig’s book see the review by Jonathan Sarfati.<sup>17</sup>

While quoted as agreeing with these authors [Roksandic *et al.*] that “*heidelbergensis* has been used as a rag-bag term for too long”, paleoanthropologist Chris Stringer, from the Natural History Museum in London, is reported (by Ashworth) as believing that “the paper may not end the issues it aims to solve.”<sup>18</sup> According to Stringer:

“Regarding *Homo bodoensis* as the Chibanian ancestor of the *Homo sapiens* lineage has its problems, ... as my and other research suggests that the facial shape of the Bodo skull is derived away from the ancestor of *Homo sapiens*, which was probably more like that of another relative, *Homo antecessor*.”<sup>18</sup> [i.e. the authors appear to be saying that the Bodo face is too different from what it would likely look like if it was the ancestor of *Homo sapiens*; instead the face of *Homo antecessor* is more like what they would expect.]

Stringer also commented that one of the authors of the Roksandic *et al.* paper (presumably Xiu-Jie Wu) “has also just published another paper suggesting that a fossil from Hualongdong in China is also a Chibanian ancestor for *Homo sapiens*, which may well add further to the muddle!”<sup>18,19</sup>

For as long as the fossil specimens are interpreted using an incorrect model (evolution), ‘the muddle in the middle’ will remain in a confusing state. Whether they are called *Homo heidelbergensis*, Neanderthals, ‘archaic’ *Homo sapiens*, *Homo bodoensis*, or some other name, the fossil specimens assigned to these categories do not represent evolutionary ‘apemen’ stages between *Homo erectus* and modern *Homo sapiens*. Rather, they were fully human, that is, descendants of Adam and Eve, as also were the fossil specimens assigned to *Homo erectus*. As such, they belonged to various subgroups of the same species, *Homo sapiens*, whose individuals were capable of interbreeding with one another. The few differences were caused by factors such as human variation, genetic drift, as well as environmental influences. That some fossil specimens exhibit a mixture of traits from different human subgroups may well be explained by interbreeding between the different human subgroups. This can give rise to appearances that are sometimes blended in general character, and at other times mosaic.

### Child of darkness

‘A child of darkness’ was the ominous title of the media announcement on 4 November 2021 about a new juvenile skull (nicknamed Leti) discovered in the Rising Star cave system of South Africa in 2017.<sup>20</sup> Delivering the announcement was Lee Berger from Wits University (University of the Witwatersrand), the project leader. Berger has delivered impressive finds in the past, so this would be quite a letdown for anyone expecting something similar this time. As evident from the reconstruction of the Leti skull, most of it (black—see figure 2) is missing.

Based on dental eruption, it was suggested “Leti would have been about 4 to 6 years old when she died if she matured like a human”, although it was acknowledged that it was not known whether Leti was male or female.<sup>20</sup> It was noted that the skull was found alone, and that no “remains of its body have been recovered.”<sup>20</sup> There was also no mandible (lower jaw) recovered, so the fossil skull can be more precisely described as a fossil cranium.

The fragmented fossil cranium, consisting of 6 teeth of the maxilla (upper jaw) and 28 cranial fragments, was stated by Brophy *et al.* (who described the remains in a paper) to be “consistent with a single, immature individual” (designated the U.W. 110 individual), with the dental morphology said to support attribution to *Homo naledi*.<sup>21</sup> Given the location of the find, this attribution is likely correct.



**Figure 2.** A reconstruction of the skull of Leti in the hand of Professor Lee Berger (Image Credit ©: Wits University)

I have previously discussed *Homo naledi* individuals.<sup>22,23</sup> They were likely *erectus*-like post-Babel humans, so descendants of Adam. Several of them possibly suffered from a developmental pathology known as cretinism, common in regions with iodine deficiency in the soils. About the Leti cranium, Brophy *et al.* wrote:

“The largest cranial fragment is part of a cluster of ten bones designated as U.W. 110-13. It is a frontal bone fragment including a portion of the right orbit, a small adjacent portion of the frontal squama, and the superiormost part of the interorbital pillar.”<sup>24</sup>

Not surprisingly, no accurate estimate of Leti’s cranial capacity was possible, but it was stated that

“... the radius of curvature of the endocranial surface at bregma is comparable to immature hominins with endocranial volumes in the 450–650ml range, such as the Taung specimen and the endocranial volume predicted for the newly described DNH134 specimen attributed to *H. erectus* ... . This young juvenile *H. naledi*, with its right first permanent molar in gingival eruption, would be predicted to have 90–95% of its brain growth completed ... . This is compatible with the known range of adult *H. naledi* endocranial volumes at 480–610cc ... .”<sup>25</sup>

It was stated that the Leti cranium “was found in an extremely remote passage of the Rising Star Cave System, some 12 meters beyond the Dinaledi Chamber, the original site of discovery of the first *Homo naledi* remains that were revealed to the world in 2015.”<sup>20</sup> The cranium was said to have been found in an extremely narrow passage (15 cm wide by 80 cm in length), its fragmented remains “found on a shelf of limestone about 80cm above the present cave floor.”<sup>20</sup> It was also mentioned that

“With no signs of carnivore damage or damage made by scavenging, and no evidence of the skull having been washed into the narrow passage, the team does not know how Leti’s skull came to rest, alone, in such a remote and inaccessible part of the system.”<sup>20</sup>

In the second paper on the find, describing the context, Elliott *et al.* said that they had not been able to find any alternate entrance into the Dinaledi Subsystem (which includes the Dinaledi Chamber), with the Chute (a 12-metre-high fracture in the dolostone) being the only route in.<sup>26</sup> On finding remains like Leti within the Dinaledi Subsystem, the authors stated:

“The presence of fossil material within extremely constricted passages as far as 40m from the Chute appears inconsistent with gravity-driven accumulation of bodies or skeletal elements from beneath this entrance into the subsystem.”<sup>27</sup>

Hence, the main issue raised by the find is how Leti and the other *Homo naledi* specimens ended up in the inaccessible and cramped spaces of the cave. It remains a mystery, although the authors hypothesized that “it is likely other members of its species were involved in the skull reaching such a difficult place.”<sup>20</sup>

When initially publishing on the finds in 2015, the then Berger team considered how the fossil material got into the Dinaledi Chamber, with occupation, predator accumulation, and water transport hypotheses considered unlikely, but mass mortality or death trap and deliberate body disposal scenarios considered plausible—the latter explanation preferred by the authors.<sup>28</sup> They stated that

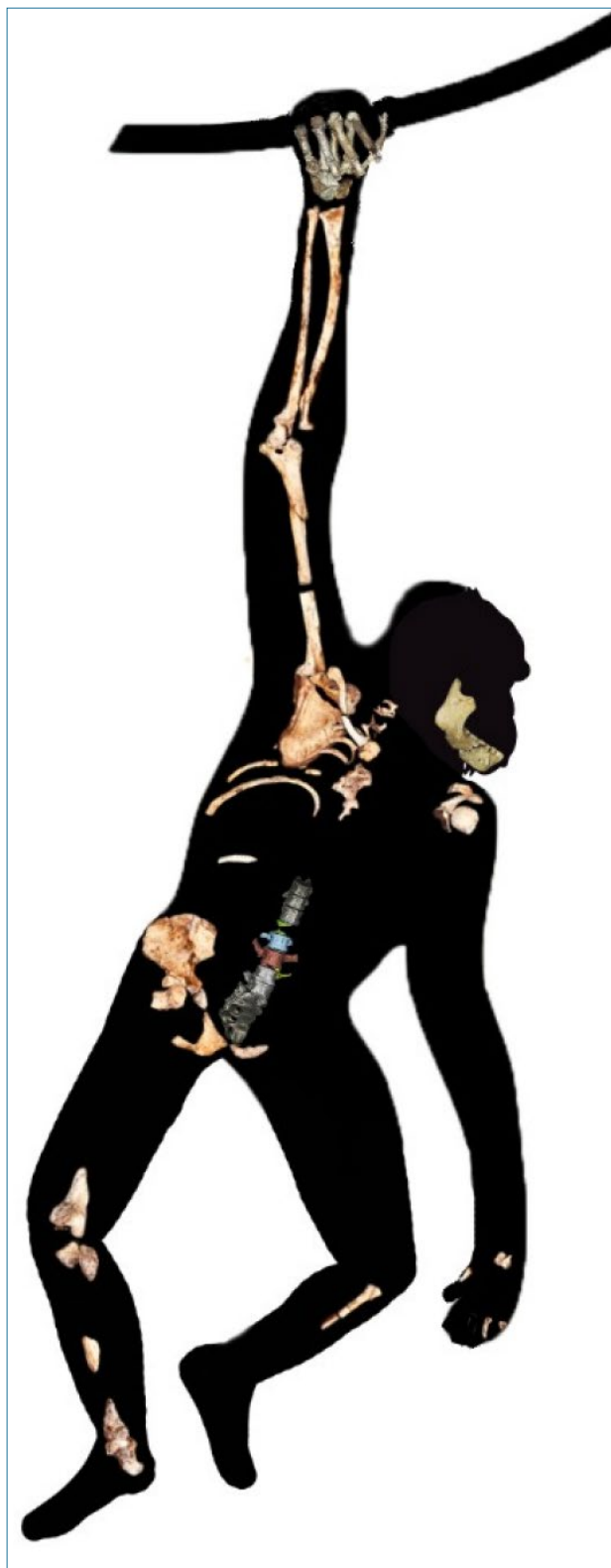
“Based on current evidence, our preferred explanation for the accumulation of *H. naledi* fossils in the Dinaledi Chamber is deliberate body disposal, in which bodies of the individuals found in the cave would either have entered the chamber, or were dropped through an entrance similar to, if not the same as, the one presently used to enter the Dinaledi Chamber.”<sup>29</sup>

On the issue of how the fossil material got into such a remote place, after the more recent Leti announcement, Michael Marshall wrote in *New Scientist*:

“Leti’s skull was found in a narrow fissure that is almost impossible to access. For that reason, the team argues that the skull was placed there deliberately, as a form of funerary practice. Presenting their findings at a virtual press conference, the researchers said it is evidence that hominins have been performing funerary rights [*sic*] for hundreds of thousands of years—even hominins with brains much smaller than ours.”<sup>30</sup>

The suggestion that ‘hominins’ have been performing funerary practices (i.e. practices associated with burial) for hundreds of thousands of years is purely based on belief in evolution, not on any empirical evidence. Concerning burial practices, one can think of easier ways of disposing of bodies than crawling through the narrow and remote corners of the Rising Star cave system. In fact, it is hard to think of a more difficult way. Hence, I have reservations about such





**Figure 3.** *Australopithecus sediba* silhouette showing the newly found vertebrae along with other skeletal remains from the species. Note that the newly found vertebrae are coloured. (Image & Caption) Credit ©: NYU & Wits University)

a hypothesis. However, if it was some sort of a religious practice then it need not necessarily make sense to us and/or be practical.

In my first article on *Homo naledi*, after the remains were first revealed in 2015, I speculated on how the remains had ended up in the Dinaledi Chamber.<sup>31</sup> One suggestion was that the people classified as *Homo naledi* may have been forced into the chamber and left there to die. Perhaps the *Homo naledi* individuals were forced to crawl in there whilst alive because of disease, or punishment for something, and then were blocked from exiting the cave system (hence, left in there to die). Perhaps further work on the site will shed more light on this mystery.

### ***Australopithecus sediba* gets a lower spine**

November 2021 was a busy month with respect to new fossil announcements for Lee Berger. Having announced the *Homo naledi* Leti discovery (see above) about three weeks earlier, Berger went on to promote the publication by Williams *et al.* (on 23 November 2021) of new fossil pieces (lumbar vertebrae) from the lower back of *Australopithecus sediba* (see figure 3).<sup>32</sup> These new fossils, from Malapa, South Africa, were said to “fit together with the previously discovered MH2 fossils, providing a nearly complete lower spine.”<sup>33</sup> MH2 is the partial skeleton of an adult individual (likely female), which was first reported on in 2010.<sup>34</sup> Although its catalogue number is MH2, the ‘female skeleton’ has been nicknamed ‘Issa’ by the researchers.<sup>35</sup> The *Australopithecus sediba* fossils, including MH2, are dated to supposedly ~2 Ma.<sup>36,37</sup> According to Williams *et al.*:

“Analysis of the fossils suggested that MH2 would have had an upright posture and comfortably walked on two legs, and the curvature of their lower back was similar to modern females. However, other aspects of the bones’ shape suggest that as well as walking, *A. sediba* probably spent a significant amount of time climbing in trees.”<sup>33</sup>

News releases about the new find by New York University (NYU) and Wits University, institutions involved in the research, were titled “Ancient human relative, *Australopithecus sediba*, ‘walked like a human, but climbed like an ape’”.<sup>35,38</sup> However, according to one of the reviewers of the paper, that *sediba* engaged in “human-like bipedalism” had not been demonstrated:

“Line 47: I agree based on the morphology of the fossils, that *A. sediba* used its lower back in a kind of bipedalism. However, the mosaic of features shown in the lower back tells us that we should be cautious to affirm that was a ‘human-like bipedalism’. The authors should find another way to define it, human-like

bipedalism (which is an obligated or complete bipedalism) is not demonstrated here.”<sup>39</sup>

The authors of the paper appear to have agreed with the reviewer that human-like bipedalism had not been demonstrated, nor was likely, leaving one to wonder why the headline included the false claim that *Australopithecus sediba* “walked like a human”:

“We understand the point the reviewer makes here and think our use of ‘human-like’ was misunderstood. We clarify that we do not think MH2 or any early hominin engaged in modern human-like bipedalism. Instead, we were mainly referring to ‘human-like’ bipedalism to contrast with ape-like bipedalism. Our comparisons of MH2 to modern humans are done because we are the only extant hominins for which we can gather large samples to compare to fossil hominins. We fully agree that MH2 and other early hominins were not fully modern human-like in bipedalism; in fact, we suspect that many modern human adaptations have to do with endurance walking and even running, which would be absent in tree-climbing early hominins like *A. sediba*.”<sup>39</sup>

As I have mentioned in another publication, when comparing some of *Australopithecus sediba*’s mix of characteristics, as presented by Colin Barras in *New Scientist* in 2013,<sup>40</sup> the ape-like ones (small brain, shoulders and long arms suited for climbing, conical rib cage and weak heel) appear to indicate unambiguously that it was an apish primate.<sup>41</sup> Its supposed ‘human-like’ features, on the other hand (expansion of prefrontal cortex, small teeth, precision grip suited for tool use, pelvis, knee and hip for upright walking), are more ambiguous in interpretation.<sup>41</sup> For example, as I reported in the *Journal of Creation* in 2021, a study found that efficient thumb opposition was not a characteristic of *Australopithecus*, including the *Australopithecus sediba* MH2 specimen.<sup>42,43</sup> Hence, this throws doubts on any alleged “precision grip suited for tool use”.

On the gait of *Australopithecus sediba*, based on analysis of the adult female MH2 skeleton, paleoanthropologist William Kimbel commented that the “proposed ‘hyperpronation’ of the foot and extreme inward rotation of the leg and thigh suggest an ungainly bipedal stride that might have made it into Monty Python’s ‘Ministry of Silly Walks’ sketch.”<sup>44</sup> Hence, if *Australopithecus sediba* walked upright it was likely not as a human, but more likely in a strange, non-human, manner. Also, as discussed in 2021, the finding that apes/primates in Europe were likely built for some form of bipedalism and/or upright posture, yet were not hominins, is a real blow to the idea that bipedalism equals hominin (i.e. apeman).<sup>45</sup> Why, then, would bipedal features in the australopithecines from Africa mean they were hominins? Hence,

the argument of evolutionists that the australopithecines were hominins because they were in some way bipedal collapses.

### Laetoli site A footprints

Footprint tracks at Laetoli, Tanzania, were first discovered in 1976, but as described by White and Suwa, the “most significant discovery of hominid tracks” occurred at Laetoli Site G in 1978.<sup>46</sup> Publications soon followed in both *Nature* and *National Geographic*.<sup>47,48</sup> According to paleoanthropologist Russell Tuttle, who studied casts of the best individual prints from the Site G footprint trails:<sup>49</sup>

“The 3.66-Ma footprint trails at Laetoli in Tanzania are the earliest definitive evidence for obligate hominid bipedalism. In all observable features of foot shape and walking pattern, the three creatures that made the trails are indistinguishable from modern habitually barefoot human beings walking at a leisurely pace ... . Indeed, if the prints were undated or if they had come from a younger time period, they probably would be designated *Homo*. ... . That they were accomplished bipeds is beyond dispute because their regularly placed footprints (n = 69) extend over 27 meters of relatively open habitat with no hand impression anywhere along the trails.”<sup>50</sup>

In 2016 Masao *et al.* reported on “hominin tracks unearthed in the new Site S at Laetoli and referred to two bipedal individuals (S1 and S2) moving on the same palaeosurface and in the same direction as the three hominins documented at Site G.”<sup>51</sup> They noted that the “main metrical features of the S1 and S2 tracks (footprint length and width, step and stride lengths) are larger than the G1–3 equivalents”.<sup>52</sup> These more recently discovered footprints, at Site S, are said to be the same age (supposedly 3.66 Ma) as the ones at Site G, the two sites being 150 metres apart.<sup>53</sup> Masao *et al.* tentatively suggested “that the new footprints can be considered as a whole with the 1970s ones”,<sup>54</sup> i.e. part of the same group. Discussing the implications of the new Laetoli footprints, the authors stated:

“The impressive record of bipedal tracks from Laetoli Locality 8 (Site G and the new Site S) may open a window on the behaviour of a group of remote human ancestors, envisaging a scenario in which at least five individuals (G1, G2, G3, S1 and S2) were walking in the same time frame, in the same direction and at a similar moderate speed. This aspect must be evaluated in association with the pronounced body-size variation within the sample, which implies marked differences between age ranges and a considerable degree of sexual dimorphism in *Au. afarensis*.”<sup>55</sup>



**Figure 4.** Footprint of an unknown species from Laetoli Site A (left). Human-like footprint from Laetoli Site G (right).

In December 2021 McNutt *et al.* published a study on footprints from Laetoli Site A. These prints were discovered in 1976, but at the time they were only partly excavated before falling into obscurity.<sup>46,56</sup> In 2019, McNutt *et al.* “located, excavated and cleaned the site A trackway,” the Site A footprints previously dated to supposedly 3.66 Ma, the same date as the footprints at Sites G and S.<sup>57</sup> The authors reported that the “footprints at site A are readily distinguished from those at site G, indicating that a minimum of two hominin taxa with different feet and gaits coexisted at Laetoli.”<sup>57</sup> From their analysis, McNutt *et al.* concluded:

“... the site A footprints were made by a bipedal hominin with a distinct and presumably more primitive foot than *A. afarensis*. The gross shape of the foot is chimpanzee-like, with slight hallucial divergence and perhaps some midfoot mobility. However, the site A individual was walking bipedally with a narrow step width indicative of either a valgus knee, adducted hips, or both. This combination of foot morphology and gait kinematics inferred from the preserved footprints precludes them from having been made by *A. afarensis*.”<sup>57</sup>

In a *Nature* companion article on the Site A footprints, Melillo commented that the “footprints themselves are oddly wide and short, and the feet responsible for their creation might have had a big toe that was capable of thumb-like grasping, similar to the big toe of apes.”<sup>58</sup> See figure 4 for a comparison of footprints from Site A and Site G. Melillo also remarked that

“It seems that two possibilities remain as probable explanations for the site A prints. They could have been created by a hominin species other than *A. afarensis* (perhaps the same as that represented by the Burtele foot). Alternatively, they could have been created by an *A. afarensis* individual walking in an atypical manner other than that tested in the study by McNutt and colleagues.”<sup>59</sup>

The most logical and simplest explanation of the above footprints is that the Site G and S footprints belonged to true humans (i.e. descendants of Adam and Eve), and likely consisted of a group made up of both adults and children (accounting for the difference in size of the tracks). This is consistent with previous analysis (by, for example, Tuttle, mentioned above) that the Site G footprint “trails are indistinguishable from modern habitually barefoot human beings walking at a leisurely pace”.<sup>50</sup>

However, the Site A footprints likely were from australopithecines, perhaps *Australopithecus afarensis*, but one cannot be sure of this. As discussed in the *Australopithecus sediba* section, above, and elsewhere,<sup>45</sup> that some australopithecines were able to walk bipedally in some way is not an issue for the Creation Model. It seems that the owner of the Site A footprints walked in a very strange bipedal manner, as it involved cross-stepping,<sup>60</sup> “in which each foot crosses over the body’s midline to touch down in front of the other foot”.<sup>58</sup> Evolutionists do not want to assign the Site A footprints to *Australopithecus afarensis*, as from their perspective that would indicate it was more ‘primitive’ than previously thought. Many (or most) evolutionists consider the Site G and S footprints as having belonged to *Australopithecus afarensis*. Hence, to them the Site A footprints must have been made by a ‘hominin’ more ‘primitive’ than *Australopithecus afarensis*. However, it is by ‘consensus’ that the footprints at Site G (and, by implication, at Site S) were assigned to *Australopithecus afarensis* by evolutionists, because of the supposed age of the prints, as indicated by Melillo:

“After heated debates in the 1970s to 1980s, most palaeoanthropologists [*sic*] reached a consensus that all fossil bones and footprints dated to the middle Pliocene epoch (roughly 3.7 million to 3 million years ago) represented the hominin species *Australopithecus afarensis*. This species was the earliest hominin known at that time and the presumed ancestor to all later hominin species. However, fossils discovered in the past two decades challenge the hard-won consensus ...”<sup>58</sup>

Doing science by ‘consensus’ is not very scientific. Essentially, as humans are not supposed to have existed as far back as 3.66 Ma on the evolutionary timescale, the Laetoli footprints are not recognized as belonging to humans by evolutionists, even though (as at Site G) they are acknowledged as being “indistinguishable from modern habitually barefoot human beings” (see full quote by Tuttle, above).<sup>50</sup>

Melillo stated (see above) that the Site A footprints may perhaps have been “created by a hominin species other than *A. afarensis* (perhaps the same as that represented by the Burtele foot).”<sup>59</sup> DeSilva *et al.* acknowledged that the “Burtele foot possessed at least a moderately abducent hallux and some grasping ability with the big toe.”<sup>61</sup> The Burtele foot



(BRT-VP-2/73), found in allegedly 3.4 Ma deposits in the Woronso-Mille study area of Ethiopia, would be contemporaneous in time with *Australopithecus afarensis*, yet was not assigned to that or any other taxon.<sup>62</sup> It is said to be “too primitive to belong to *A. afarensis*.”<sup>63</sup>

Some associated foot bones of *Australopithecus afarensis* exist, although many have been found in isolation.<sup>64</sup> A composite *afarensis* foot skeleton from the Hadar 333 locality is said to show a “human-like rearfoot and midtarsal region, but long, lateral phalanges.”<sup>66</sup> However, evidence that the foot of *afarensis* had a longitudinal arch appears to be lacking, based on examining the fossil foot bones, and similarly the evidence of a non-grasping adducted hallux is very ambiguous; the evidence seeming to instead indicate “some hallucal abductance,”<sup>65</sup> hence allowing some mobility of the hallux (big toe).

Evidence of a longitudinal arch (and adducted hallux) appears to be based on the Laetoli fossil footprints, but, as even DeSilva *et al.* note, even some evolutionists do not believe these footprints belong to *Australopithecus afarensis*, as they are “too human-like”.<sup>66</sup> DeSilva *et al.* note that these evolutionists (including Tuttle) instead propose “that they were made by an as-of-yet undiscovered hominin with a more human-like foot”.<sup>66</sup>

According to Tuttle, the hallux of the Laetoli ‘hominid’ Site G foot “is aligned with the lateral four toes, and the interdigital gap between it and the second toe is quite human”, and the “G prints evidence a medial longitudinal arch.”<sup>67</sup> In some respects, DeSilva *et al.* found the *Australopithecus afarensis* foot to be quite human-like, but their analysis depended, at least in part, on the Laetoli footprints having been made by *afarensis* (and not by humans), as admitted by them, as follows:

“Nevertheless, the wealth of data from the Hadar foot bones and the Laetoli footprints form a general picture of the *A. afarensis* foot (assuming of course that the Laetoli ‘G’ and ‘S’ prints were made by *A. afarensis*).”<sup>68</sup>

One suspects that if the supposed age of the Laetoli footprint-bearing stratum had not been dated so ‘early’ (3.66 Ma), but much more recent, then evolutionists would be saying humans made them, but they cannot do so with the current attributed date as that would collapse their human evolution storyline. It is interesting how most evolutionists accept the Laetoli G footprints as belonging to *Australopithecus afarensis*, even though some consider them ‘too human-like’ to belong to *afarensis*. Yet, they reject the Burtele foot, as well as the Laetoli site A footprints, as belonging to *Australopithecus afarensis*, because they are considered ‘too primitive’ to belong to *afarensis*. If findings tend to be interpreted to

only support the human evolutionary narrative, then are we dealing with science or a belief system?

It is also an example of the faulty logic and circular reasoning that so pervades this field. If fossil footprints are ruled out from belonging to humans essentially because of an alleged early date, then of course no fossil footprints of humans will ever be found to contradict the evolutionary timeline. In this case, after arbitrarily ruling out the possibility of fossil footprints belonging to humans in the supposed time period 3 to 3.7 Ma, some evolutionists then use this as proof that any human-like footprints (e.g. those at Site G) allegedly dated to this period were not made by humans, but rather by some australopithecine ‘hominin’, in particular *Australopithecus afarensis*.

### The Omo fossils and their redating

Three adult skulls (Omo I, Omo II and Omo III) of various completeness, as well as a partial skeleton associated with one of the skulls (Omo I), were found and recovered in the Omo River region of South-West Ethiopia in 1967, by a team led by Richard Leakey.<sup>69</sup> Michael Day did the initial descriptions of the remains. The Omo I skull was described as having an incomplete vault, and the Omo II skull (1,435 cc) as consisting of an almost complete calvarium (lacking the face and part of the base).<sup>70</sup> The fragmentary nature of the remains of the Omo III skull was said to “preclude any real assessment of its affinities at this time, but what resemblance it has lies with the more modern of the first two Omo skulls.”<sup>71</sup> The Omo I skull is the more modern in general form, being more lightly built (although its vault is still considered “robust by modern human standards”), and said to be “reasonably compared with both the Swanscombe and Skuhl skulls.”<sup>72</sup> The Omo II skull was said to be similar in many features to the Solo skulls (i.e. the Indonesian Ngandong *Homo erectus*), and “to a lesser extent, the Broken Hill skull, the Vertessöllös occipital, the Kanjero skulls, and even indeed *Homo erectus*.”<sup>71</sup>

The sites of the Omo I and II finds are said to “both come from the same level, a minor disconformity in the upper third of Member I, Kibish Formation [figure 5].”<sup>73</sup> Omo II is said to have been “found on the surface”, whilst Omo I was “recovered from a siltstone”.<sup>74</sup> The original date assigned to these Omo fossils was 130 ka in 1967, based on the decay of uranium atoms in oyster shells, but according to Frank Brown “that date should always have been taken with a pinch of salt”.<sup>75</sup> This comment was made after the publication of new results, in 2005, “regarded as far more robust” by the BBC article reporting on the redating.<sup>75</sup> The new date, obtained by <sup>40</sup>Ar/<sup>39</sup>Ar dating of feldspars, narrowed the age to between supposedly 104 and 196 ka, and with additional geological



**Figure 5:** The Kibish Formation in southern Ethiopia, the location where the Omo fossils were discovered.

evidence, Omo I and II were said to be “relatively securely dated to  $195 \pm 5$  kyr old”.<sup>76</sup> According to the authors of the study this made “Omo I and Omo II the oldest anatomically modern human fossils yet recovered.”<sup>76</sup> This aligned well with the then popular Out of Africa Model of modern human origins, which proposed that modern humans (*Homo sapiens*) evolved in East Africa, and that this occurred supposedly about 200 ka.<sup>77</sup> The relatively recent collapse of the Out of Africa Model, or at least parts of it, has allowed evolutionists to propose models whereby modern humans allegedly evolved from ‘archaic humans’ earlier than 200 ka.

According to a very recent study, the Omo I remains (and by implication Omo II) must be older than a colossal volcanic eruption that occurred allegedly 230 ka.<sup>78</sup> A research team dated pumice samples from a volcanic ash layer above where the fossil material was found, and argued that the Omo I fossils, being found deeper than this volcanic ash layer, must be greater than 230 ka.<sup>78</sup> Although the volcanic ash above Omo I was too fine-grained to be directly dated, the researchers were able to link the chemical fingerprint in this ash to a major eruption of a volcano (Shala), located 400 km away, identified as the source of the ash.<sup>79</sup> The researchers, using the  $^{40}\text{Ar}/^{39}\text{Ar}$  dating method on pumice samples collected from Shala, obtained “a new minimum age for the Omo fossils of  $233 \pm 22$  kyr”, and commented that the “challenge remains to obtain a robust maximum age for Omo I.”<sup>80</sup>

Both the potassium-argon (K-Ar) and argon-argon ( $^{40}\text{Ar}/^{39}\text{Ar}$ ) methods have pitfalls,<sup>81</sup> and so the above  $^{40}\text{Ar}/^{39}\text{Ar}$  ages are not accepted here. Aside from this, that these types of fossils keep getting redated indicates uncertainty about the dates by the evolutionists themselves, as why redate them otherwise. As an example of the uncertainties regarding the dating of ‘hominin’ remains, according to Brasseur, “55 years and 36 absolute datings later, considerable uncertainty

remains regarding the potential age of Sangiran’s extensive and deep fossiliferous strata.”<sup>82</sup> For more examples of fossils being redated see Line.<sup>83</sup> In some instances, though, one gets the feeling that the redating is just to ‘find’ a date more suitable for some human evolution model. According to Vidal *et al*:

“Our new age constraints are congruent with most models for the evolution of modern humans, which estimate the origin of *H. sapiens* and its divergence from archaic humans at around 350–200 ka ... ”<sup>84</sup>

That there are several models for the evolution of modern humans indicates the uncertainty existing in this field since the collapse of the popular Out of Africa Model.<sup>85</sup> However, why should anyone take the latest speculations in the newer models, all based on the big assumption that evolution is true, any more seriously than in the earlier debunked model?

Both Omo I and Omo II were referred to as anatomically modern humans in the study by McDougall *et al*.<sup>76</sup> According to a coauthor of the study, anthropologist John Fleagle, “no scientist has been bold enough to suggest Omo II is anything other than *Homo sapiens*”.<sup>86</sup> Discussing features that have prompted a comparison of Omo II to *Homo erectus*, paleo-anthropologist Philip Rightmire, on the greater than 1,400 cc cranial capacity in Omo II, stated that it was “surely higher than would be expected in any member of that taxon [referring to *Homo erectus*].”<sup>87</sup> I have previously commented on the tendency, by evolutionists, to rule out crania from belonging to *Homo erectus* essentially because of a large cranial capacity, and how this is an example of circular reasoning.<sup>88</sup> That is, after arbitrarily ruling out crania with large cranial capacities as belonging to *Homo erectus*, this is then used as evidence that there are no *Homo erectus* crania with large cranial capacities. While acknowledging that analysis supports the assessment that the partial skull and skeleton of Omo I is anatomically modern, Pearson writes that “the preserved basicranial [base of the skull] details of Omo II recall the anatomy of *Homo erectus*, and Stringer (1974) found that it clustered with Ngandong in multivariate space.”<sup>89</sup>

From a creation viewpoint, both Omo I and Omo II were descendants of Adam and Eve. Omo II has a cranial capacity slightly above the modern human average but shows affinity with fossil specimens classified as *Homo erectus*, whereas Omo I identifies clearly with *Homo sapiens*. Hence, they may have belonged to various subgroups of the same human species, *Homo sapiens*, as discussed earlier, with any morphological differences just reflecting variation within the biblical human *kind*. That Omo I and II appear to have lived contemporaneously and were found in the same general area (a few kilometres apart), indicate that they may even have lived together as part of a local human tribe.



## Conclusions

While the ‘Middle Pleistocene’ fossil specimens are interpreted using an incorrect model (evolution) ‘the muddle in the middle’ will remain in a confusing state, and adding the name *Homo bodoensis* to the mix will not bring more clarity.

The main issue raised by the Leti find is how it and other *Homo naledi* specimens ended up in the inaccessible and cramped spaces of the cave. To me, the most logical explanation is that the people classified as *Homo naledi* may have been forced into the chamber and left there to die.

Based on new fossil pieces (lumbar vertebrae) from the lower back of *Australopithecus sediba*, headlines in the media claimed *sediba* “walked like a human, but climbed like an ape”. However, if *Australopithecus sediba* engaged in bipedalism it was likely in a strange, non-human manner.

The most logical explanation of the Laetoli footprints appears to be that the Site G and S footprints belonged to true humans, but the Site A footprints belonged to australopithecines, perhaps *Australopithecus afarensis*, but one cannot be sure of this.

The Omo fossils, redated for the second time, are given a minimum earlier date of allegedly 233 ka, which aligns the anatomically modern Omo I skull with newer evolution models of modern human origins. However, questions remain concerning the reliability of such dates or redates. Also, the contemporaneous *Homo-erectus*-like Omo II cranium does not fit the evolutionary scenario.

## References

- Roksandic *et al.*, Resolving the “muddle in the middle”: The case for *Homo bodoensis* sp. nov., *Evolutionary Anthropology* 2021, pp. 1–10, 28 October 2021 | doi.org/10.1002/evan.21929.
- The University of Winnipeg, Experts name new species of human ancestor, [eurekaalert.org/news-releases/932542](https://eurekaalert.org/news-releases/932542), 28 October 2021.
- Marshall, M., New human species has been named *Homo bodoensis*—but it may not stick, [www.newscientist.com/article/2295406-new-human-species-has-been-named-homo-bodoensis-but-it-may-not-stick/](https://www.newscientist.com/article/2295406-new-human-species-has-been-named-homo-bodoensis-but-it-may-not-stick/), 28 Oct 2021.
- Roksandic *et al.*, ref. 1, p. 1.
- Roksandic *et al.*, ref. 1, pp. 1, 4.
- Roksandic *et al.*, ref. 1, p. 5.
- Roksandic *et al.*, ref. 1, pp. 5–6.
- Roksandic *et al.*, ref. 1, see table S1.
- Roksandic *et al.*, ref. 1, p. 6.
- Line, P., *Homo heidelbergensis*, Chapter 17; in: Bergman, J., Line, P., Tomkins, J., and Biddle, D. (Eds.), *Apes as Ancestors: Examining the claims about human evolution*, BP Books, Tulsa, OK, pp. 303–306, 2020.
- Pilbeam, D.R., Middle Pleistocene Hominids; in: Butzer, K.W. and Isaac, G.L.L. (Eds.), *After the Australopithecines: Stratigraphy, ecology, and culture change in the Middle Pleistocene*, Mouton Publishers, The Hague, pp. 809–856, 1975.
- Craig, W.L., *In Quest of the Historical Adam: A biblical and scientific exploration*, William B. Eerdmans Publishing Company, Grand Rapids, MI, p. 359, 2021.
- Craig, ref. 12, pp. 363, 380.
- Craig, ref. 12, p. 365.
- See: Line, P., Explaining robust humans, *J. Creation* 27(3):64–71, 2013.
- See: Line, P., The myth of ape-to-human evolution, *Creation* 41(1):44–46, 2019.
- Sarfati, J., Review of *In Quest of the Historical Adam: A biblical and scientific exploration* (William B. Eerdmans Publishing Company, Grand Rapids, MI, 2021), in preparation.
- Ashworth, J., Potential new human species may redraw the family tree, [nhm.ac.uk/discover/news/2021/november/potential-new-human-species-may-redraw-family-tree.html](https://nhm.ac.uk/discover/news/2021/november/potential-new-human-species-may-redraw-family-tree.html), 3 November 2021.
- Wu, X. *et al.*, Morphological description and evolutionary significance of 300 ka hominin facial bones from Hualongdong, China, *J. Human Evolution* 161:103052, December 2021 | doi.org/10.1016/j.jhevol.2021.103052.
- Wits University, A child of darkness, [wits.ac.za/homonaledi/whats-new/news/a-child-of-darkness.html](https://wits.ac.za/homonaledi/whats-new/news/a-child-of-darkness.html), 4 November 2021.
- Brophy, J.K. *et al.*, Immature hominin craniodental remains from a new locality in the Rising Star cave system, South Africa, *PaleoAnthropology* 2021:1, pp. 1, 3, 11–12, 5 November 2021 | doi.org/10.48738/2021.iss1.64.
- Line, P., Making sense of *Homo naledi*, *Creation* 40(4):36–38, 2018.
- Line, P., Den of ape-men or chambers of the sickly? An update on *Homo naledi*, [creation.com/homo-naledi-update](https://creation.com/homo-naledi-update), 25 May 2017.
- Brophy *et al.*, ref. 21, p. 9.
- Brophy *et al.*, ref. 21, pp. 12–13.
- Elliott, M.C. *et al.*, Expanded explorations of the Dinaledi Subsystem, Rising Star cave system, South Africa, *PaleoAnthropology* 2021:1, pp. 16, 21, 5 November 2021 | doi.org/10.48738/2021.iss1.68.
- Elliott *et al.*, ref. 26, p. 21.
- Dirks, P.H.G.M. *et al.*, Geological and taphonomic context for the new hominin species *Homo naledi* from the Dinaledi Chamber, South Africa, *eLife* 4:e09561, pp. 28–30, 10 September 2015 | doi.org/10.7554/eLife.09561.
- Dirks *et al.*, ref. 28, p. 30.
- Marshall, M., *Homo naledi* infant skull discovery suggests they buried their dead, [www.newscientist.com/article/2296360-homo-naledi-infant-skull-discovery-suggests-they-buried-their-dead/](https://www.newscientist.com/article/2296360-homo-naledi-infant-skull-discovery-suggests-they-buried-their-dead/), 4 November 2021.
- Line, P., The puzzling *Homo naledi*: a case of variation or pathology in *Homo erectus*?, [creation.com/puzzling-homo-naledi](https://creation.com/puzzling-homo-naledi), 19 November 2015.
- Williams, S.A. *et al.*, New fossils of *Australopithecus sediba* reveal a nearly complete lower back, *eLife* 10:e70447, 23 November 2021 | doi.org/10.7554/eLife.70447.
- Williams *et al.*, ref. 32, p. 3.
- Berger, L.R. *et al.*, *Australopithecus sediba*: a new species of *Homo*-like australopithecine from South Africa, *Science* 328:195, 204, 2010.
- NYU, Ancient human relative, *Australopithecus sediba*, “walked like a human, but climbed like an ape”, [nyu.edu/about/news-publications/news/2021/november/ancient-human-relative-australopithecus-sediba-walked-like-a.html](https://nyu.edu/about/news-publications/news/2021/november/ancient-human-relative-australopithecus-sediba-walked-like-a.html), 23 November 2021.
- Williams *et al.*, ref. 32, p. 2.
- Pickering, R. *et al.*, *Australopithecus sediba* at 1.977 Ma and implications for the origins of the genus *Homo*, *Science* 333:1421–1423, 2011. According to this “refined” dating paper: “Uranium-lead dating of the flowstone, combined with paleomagnetic and stratigraphic analysis of the flowstone and underlying sediments, provides a tightly constrained date of 1.977 ± 0.002 million years ago (Ma) for these fossils” (p. 1421). These authors also stated that the initial “age of the fossils was estimated as 1.78 to 1.95 Ma on the basis of faunal correlation, U-Pb dating, and paleomagnetic data” (p. 1421).
- Wits University, Ancient human relative, *Australopithecus sediba*, “walked like a human, but climbed like an ape”, [wits.ac.za/news/latest-news/research-news/2021/2021-11/ancient-human-relative-australopithecus-sediba-walked-like-a-human-but-climbed-like-an-ape.html](https://wits.ac.za/news/latest-news/research-news/2021/2021-11/ancient-human-relative-australopithecus-sediba-walked-like-a-human-but-climbed-like-an-ape.html), 23 November 2021.
- Williams *et al.*, ref. 32, See the Web version of the paper, in the Author response section to Reviewer #1.
- Barras, C., The unexpected ape, *New Scientist* 219(2925):37, 13 July 2013.
- Line, P., *Australopithecus sediba*, Chapter 9; in: Bergman, J., Line, P., Tomkins, J., and Biddle, D. (Eds.), *Apes as Ancestors: Examining the claims about human evolution*, BP Books, Tulsa, OK, p. 134, 2020.
- Line, P., Developments in paleoanthropology, *J. Creation* 35(3):118, 2021.
- Karakostis, F.A. *et al.*, Biomechanics of the human thumb and the evolution of dexterity, *Current Biology* 31:1–2, 22 March 2021.
- Kimbel, W.H., Hesitation on hominin history, *Nature* 497:574, 2013.
- Line, ref. 42, pp. 119–121.

46. White, T.D. and Suwa, G., Hominid footprints at Laetoli: facts and interpretations, *American J. Physical Anthropology* 72:486, 1987.
47. Leakey, M.D. and Hay, R.L., Pliocene footprints in the Laetoli Beds at Laetoli, northern Tanzania, *Nature* 278:317–323, 22 March 1979.
48. Leakey, M.D., Footprints in the ashes of time, *National Geographic* 155(4):446–457, April 1979.
49. Tuttle, R.H., Ape footprints and Laetoli impressions: a response to the SUNY claims; in: Tobias, P.V. (Ed.), *Hominid Evolution: Past, Present and Future*, Alan R. Liss, Inc., New York, p. 130, 1985.
50. Tuttle, R.H., *Apes and Human Evolution*, Harvard University Press, Cambridge, Massachusetts, p. 246, 2014.
51. Masao, F. *et al.*, New footprints from Laetoli (Tanzania) provide evidence for marked size variation in early hominins, *eLife* 5:e19568, p. 1, 14 December 2016 | [doi.org/10.7554/eLife.19568](https://doi.org/10.7554/eLife.19568).
52. Masao *et al.*, ref. 51, pp. 17, 20.
53. Jungers, W.L. *et al.*, These feet were made for walking, *eLife* 5:e22886, p. 1, 14 December 2016 | [doi.org/10.7554/eLife.22886](https://doi.org/10.7554/eLife.22886).
54. Masao *et al.*, ref. 51, p. 2.
55. Masao *et al.*, ref. 51, p. 21.
56. McNutt, E.J. *et al.*, Footprint evidence of early hominin locomotor diversity at Laetoli, Tanzania, *Nature* 600:468, 2021.
57. McNutt *et al.*, ref. 56, p. 471.
58. Melillo, S.M., Hominin footprints reveal a walk on the wild side, *Nature* 600:389, 2021.
59. Melillo, ref. 58, p. 390.
60. McNutt *et al.*, ref. 56, p. 469.
61. DeSilva, J. *et al.*, One small step: A review of Plio-Pleistocene hominin foot evolution, *American J. Physical Anthropology* 2018:38, 2018 | [doi.org/10.1002/ajpa.23750](https://doi.org/10.1002/ajpa.23750).
62. Haile-Selassie, Y. *et al.*, A new hominin foot from Ethiopia shows multiple Pliocene bipedal adaptations, *Nature* 483:568, 2012.
63. Spoor, F., The middle Pliocene gets crowded, *Nature* 521:433, 2015.
64. DeSilva *et al.*, ref. 61, p. 40.
65. DeSilva *et al.*, ref. 61, p. 42.
66. DeSilva *et al.*, ref. 61, pp. 43–44.
67. Tuttle, ref. 50, p. 248.
68. DeSilva *et al.*, ref. 61, p. 44.
69. Leakey, R.E.F., Early *Homo sapiens* remains from the Omo River region of South-west Ethiopia, *Nature* 222:1132–1133, 1969.
70. Day, M.H., Omo human skeletal remains, *Nature* 222:1136, 1969.
71. Day, ref. 70, p. 1138.
72. Day, ref. 70, pp. 1136, 1138.
73. Butzer, K.W., Geological interpretation of two Pleistocene hominid sites in the Lower Omo Basin, *Nature* 222:1135, 1969.
74. McDougall, I. *et al.*, Stratigraphic placement and age of modern humans from Kibish, Ethiopia, *Nature* 433:734–735, 2005.
75. BBC, Age of ancient humans reassessed, [news.bbc.co.uk/2/hi/science/nature/4269299.stm](https://www.bbc.co.uk/2/hi/science/nature/4269299.stm), 16 February 2005.
76. McDougall *et al.*, ref. 74, p. 736.
77. Line, P., ‘Out of Africa’ on the ropes, *Creation* 41(2):23, 2019.
78. University of Cambridge, Earliest human remains in eastern Africa dated to more than 230,000 years ago, [phys.org/news/2022-01-earliest-human-eastern-africa-dated.html](https://phys.org/news/2022-01-earliest-human-eastern-africa-dated.html), 12 January 2022.
79. Dvorsky, G., Oldest known fossil of a modern human may be even more ancient than we thought, [gizmodo.com/oldest-known-fossil-of-a-modern-human-may-be-even-more-1848344504](https://gizmodo.com/oldest-known-fossil-of-a-modern-human-may-be-even-more-1848344504), 12 January 2022.
80. Vidal, C.M. *et al.*, Age of the oldest known *Homo sapiens* from eastern Africa, *Nature*, pp. 1,3,4, 12 January 2022 | [doi.org/10.1038/s41586-021-04275-8](https://doi.org/10.1038/s41586-021-04275-8).
81. Snelling, A.A., *Earth’s Catastrophic Past: Geology, Creation & The Flood*, vol. 2, Institute for Creation Research, Dallas, TX, pp. 803–810, 2009.
82. Brasseur, B., A younger ‘earliest human migration’ to Southeast Asia, *Science* 367:147, 2020.
83. Line, P., *Homo erectus*, chap. 14; in: Bergman, J., Line, P., Tomkins, J., and Biddle, D. (Eds.), *Apes as Ancestors: Examining the claims about human evolution*, BP Books, Tulsa, OK, pp. 221–224, 2020.
84. Vidal *et al.*, ref. 80, p.4.
85. Line, ref. 77, pp. 22–25.
86. University of Utah, The oldest *Homo sapiens*, [eurekaalert.org/news-releases/908775](https://eurekaalert.org/news-releases/908775), 16 February 2005.
87. Rightmire, G.P., *Homo sapiens* in Sub-Saharan Africa, in: Smith, F.H. and Spencer, F. (Eds.), *The Origins of Modern Humans: A world survey of the fossil evidence*, Alan R. Liss, Inc., New York, NY, p. 313, 1984.
88. Line, P., New *Homo erectus* crania associated with stone tools, *Journal of Creation* 34(2):57–58, 2020.
89. Pearson, O.M., Africa: The cradle of modern people, in: Smith, F.H. and Ahern, J.C.M. (Eds.), *The Origins of Modern Humans: Biology reconsidered*, 2<sup>nd</sup> edn, John Wiley & Sons, Inc., Hoboken, New Jersey, pp. 14–15, 2013.

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