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Hey... Are We Related?

Fossils of previously-unknown early hominin species found in Africa



by Charles Simmons

Looks like Ancestry.com is going to have to update their records, because you have a new ancestor. Well, that is if their records go back a few million years. Your new ancestor belongs to the species *Homo naledi*, a type of hominin that has been extinct for millions of years. Fossils found belonging to this new species of early human are likely to provide invaluable information about the evolution of humans.

Fossils belonging to at least 15 individuals were found in October of 2013 in South Africa, but it wasn't until September of this year that Dr. Paul Dirks and his colleagues announced in *eLife* that these fossils belonged to a new species. Included in the fossils were multiple copies of most of the bones in the skeleton. To put these findings into perspective, researchers are calling this the largest collection of a single hominin species that has ever been discovered in Africa. In order to pay homage to the country where these fossils were found, researchers carefully selected the name *Homo naledi* for this species. The word "naledi" means star in the South African language of Sotho.

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The fossils have already told researchers much about the appearance of *Homo naledi*. *Homo naledi* have hands, arms, feet, and legs similar to modern humans. The ribcage, shoulders, and pelvis also resembled those of modern humans. Where the two diverge is structure of the skull: the skulls belonging to *Homo naledi* were smaller than modern humans and more similar to early hominin species existing two to four million years ago.

Despite the wealth of knowledge already gained from these fossils, there are still many questions that have yet to be answered about *Homo naledi*. One question that remains is the time period during which *Homo naledi* lived. The only clue that researchers have so far is the aforementioned skull structure, suggesting that *Homo naledi* lived two to four million years ago. Researchers hope to find additional clues to get a more accurate estimate of the time period during which *Homo naledi* roamed the earth. Researchers are also wondering why there were so many individuals buried in one location. Using geographical and taphonomic (related to the processes affecting fossilization) clues, Dirks and colleagues believe that the site was used for body disposal. Other possible explanations include mass fatality, a death trap, or being a place where predators of *Homo naledi* would bring the scavenged remains of the early hominins.

Although many questions remain regarding your newly discovered ancestor, *Homo naledi* has already revealed many clues about the evolution of modern humans. The discovery of over 15 specimens could prove to be one of the most valuable archaeological finds of all time. 🐾