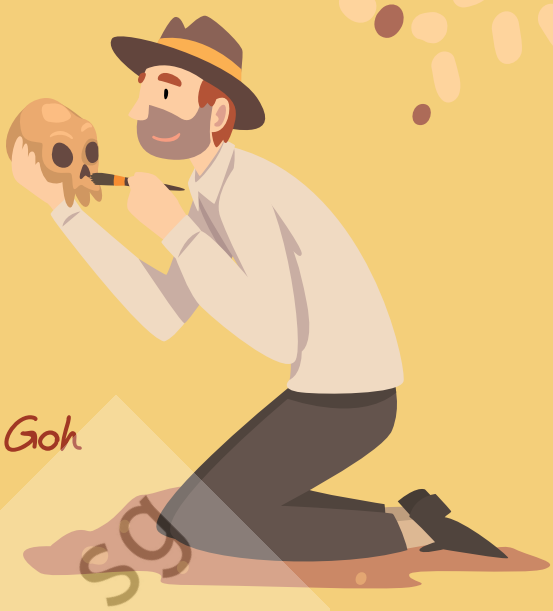
SURVIVAL OF MAN

By Tiffany Goh



Fossils reveal that our ancestors looked different from us when they walked the earth long before us. Thought to originate from Africa more than 315,000 years ago, early Man had certain physical attributes which helped him survive better and thrive in his environment.

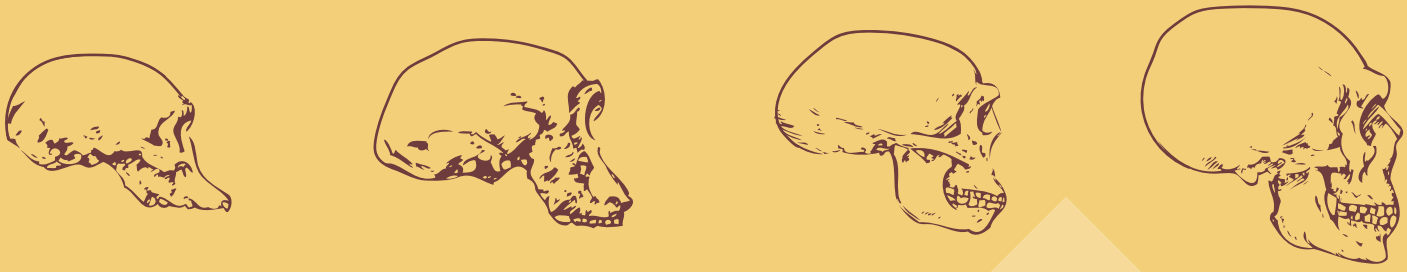
For example, there was a time when ancestors had rather long arms, short legs, narrow shoulders, and long grasping [1]extremities, due to the fact that they lived in the forest and had to [2]forage amongst trees. These physical features enabled Man to cope better with his tree-dwelling surroundings.

However, as climates became drier and more seasonal, the trees gradually gave way to an open [3]savannah in the African lands. Accordingly, certain physical traits of Man evolved to help him manage these changes around him. This was seen in 'Turkana Boy', a remarkably complete skeleton found with a significant change in physical size from previous human fossils: at only eight years old, Turkana Boy was 1.6m tall and it is estimated that he would have grown to 1.8m if he had reached full maturity.

Scientists estimate that human brains have tripled in size over seven million years, with most of this growth happening in the last two million years.

As early populations started to venture out of Africa and into different parts of the world, Man's physical characteristics continued to evolve in order to help him thrive in his respective environments. Variations in skin colour developed as a way for Man to cope with different intensities of sunlight in various climates. Darker skin colour contains more of the skin pigment, melanin, which protects against the sun's harmful ultraviolet radiation, and is usually found among people in the tropics where radiation is the highest. Similarly, those living in hot, dry areas tend to be taller and more slender than those living in very cold climates, because they need to lose heat rather than retain it as a rounder body does.

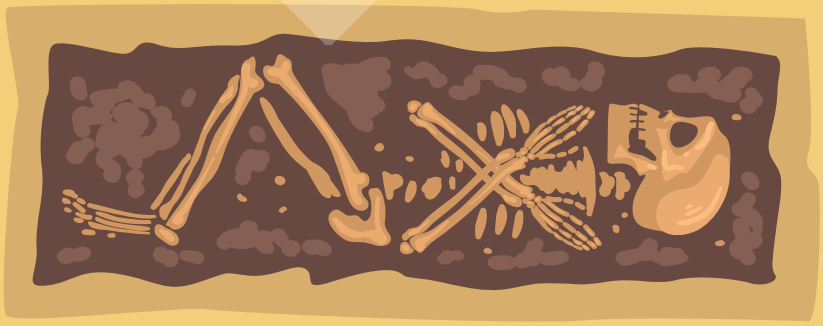
Brain Capacity →



← Years ago

Other than evolving physical externalities, the size and shape of human brains have also evolved over time to better help humans cope with increasing [4]cognitive demands. Scientists estimate that human brains have tripled in size over seven million years, with most of this growth happening in the last two million years. As the world developed and Man had to navigate more complex challenges, our brains grew to accommodate these needs.

Humans have come a long way from the [5]primal days of hunting and gathering in the Stone Age. Our evolving physical functions have always evolved to help us survive, and it will be no different as the human population advances into the digital age.



Word Bank:

1. **extremities:** the parts of your body that are furthest from the centre, especially one's hands and feet
2. **forage:** to search widely for food
3. **savannah:** a wide flat open area of land, especially in Africa, that is covered with grass but has few trees
4. **cognitive:** connected with mental processes of understanding
5. **primal:** connected with the earliest origins of life; very basic

References:

1. Homo sapiens, from Britannica, 20 July 1998.
2. How has the human brain evolved? From Scientific American, 1 July 2013.