
The Role Of Fire In Human Evolution

Humans have developed in many capacities that have led to our advantages and technology today. We have developed from over 3 million years ago with brain and body developments. There are six key essential concepts that have helped our species grow, including fire, language, cooking, shelter, clothing, and art. Each of these concepts is connected to each other in a way and can connect these inventions together. They are the basic ideas that we developed that are the first step to cultural and physical human evolution. Fire is a significant factor in human evolution. Humans travel everywhere with mainly language and fire. Necessities including cooking and keeping warm are a part of fire and help us live out of primitive ways before fires. It has changed our methods of survival significantly, it would be impossible for us to survive and there is no evidence of so.

Evidence for when a fire was first created dates back to around 1.5-2 million years ago at South Africa's Wonderwerk Cave. Homo erectus had lived in that time period and is believed to be the species who started controlled fires. The African plains were dry but it is found that it is less prone to natural widespread fires, due to being a protected area now. The Wonderwerk Cave contained charred animal bones and burned plants and is controversial whether it is clear evidence or not. The first clear evidence was found from caves in Israel, dating back from 300,000-400,000 years ago. The caves were excavated and archaeologists found animal and plant remains and charcoal bits. There is no definite idea of how fire was made but there are many theories surrounding that topic. When Homo erectus first used fire to cook, it was a very large change to their diet. Cooked meat allowed for a more filling meal with more calories which eventually added a cause to larger brain size. Fires gave early humans advantages including warmth, protection from predators, and allowed social development among themselves. There are theories circulating whether fire allowed storytelling, a form of social complexity.

Later civilizations have used fire for its main basic purposes as well. Fire has not evolved dramatically from its purposes other than its use for religious/cultural and entertainment among others. Native Americans have used fire to improve and expand their land and to make hunting easier. They widely respected fire as a value and called fire "Grandfather Fire" as well. American Indians used fire to create more complex tools/weapons to hunt animals and to clear trees for agricultural land.

A large invention heavily using fire was the wood-burning stove made by Benjamin Franklin in the 16th Century. It was the first stove invented and had simple heating principles that used wood as fuel. It wasn't till 200 years later that wood-burning stoves would be common across the United States. Starting from the first invention of fire, Benjamin Franklin had bettered it with new technology and a new strategy to expand from the basic use for warmth. Although it was the first stove, it came along with few disadvantages. Burning wood caused pollutants and dangerous gases to spread and cause respiratory diseases. Fires, in general, caused watery eyes and seared lungs due to the thick black smoke.

A compelling evolution of fire starts with the beginning of the modern era of the 20th-21st century. Today, we use fire to combust fossil fuels and convert it into energy. Electricity, which requires wires, created sparks as electrical currents run through. These electric currents will

produce heat and can combust and cause fires as well. The invention of gas stove burners and grills used to barbecue and cook food and need propane gas and fire. In safety cases, fire is used to alert or signal for help in an isolated area. We have very much upgraded and complexed the idea of a stove from the first stove ever made, through new technology and understanding of fire and engineering. From the first uses of fire, these uses have gone beyond the basic purposes of fire but also can now come as a bit more than we need and rather optional. We have instances in this modern-day where fire is used as a form of art and entertainment too. But with new concepts involving fire always comes with more risks. Fires have been known to inflict death and injury, resulting in fire departments/fighters to attempt to prevent these. Thick smoke and toxic gas build-up can cause a hazard and an unsafe place. With the leisure of having fossil fuel burned, it costs us by having those gases released into the atmosphere, damaging the Earth as well.

Without fire, the human species would not be as near the position modern humans are at today. Fire provides warmth, protection, cooking, and new tools for the Homin species. Many inventions created by famous inventors have based on a simple fire. Fire has allowed for a better way of life and into new inventions that have helped our survival. Geography and cultural innovations have aspired from fires and have not only affected us physically but also socially. Homo sapien sapiens have set off our revolutionary path by taming fire.

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