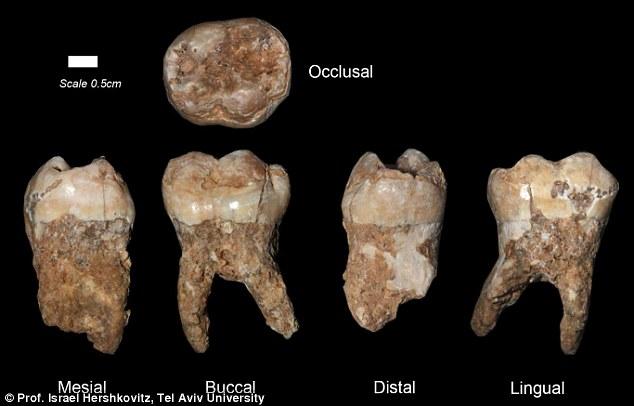
Cavemen & Fire



It seems that people have been polluting the environment for a long time. Scientists have found evidence of the first pollution made by humans. They found this evidence on the teeth of Paleolithic people that lived 400,000 years ago. The teeth were found in a cave in Israel. The teeth show that the Paleolithic people breathed in smoke while they cooked meat inside the cave. The pollutant contained traces of charcoal from the fires that were used to cook the meat. Cooking food helped the Paleolithic people in many ways. They could eat more types of food and it made it easier to eat and digest food. However cooking with fire inside of caves caused air pollution. This pollution probably caused health problems for these Paleolithic people because we know that breathing in smoke and charcoal is bad for people's’ lungs. We now have learned how to control fire as we cook indoors and most people are not exposed to this pollutant.

Romans & Agriculture

Scientists thought that before the Industrial Revolution, increased greenhouse gasses were not harming the planet’s atmosphere. However there is new evidence that says the opposite. A team of scientists removed ice samples from greenland. This ice has been collecting for 115,000 years. The scientists studied ice samples from the past 2,100 years. They found air bubbles trapped in the ice. The scientists measured the amount of methane gas in these air bubbles. Methane gas is in the atmosphere naturally in small amounts. But an increase in methane gas in the atmosphere is connected to climate change. The scientists were surprised to find that methane gas levels increased around 100 B.C. The scientists believe it is due to the activity of the ancient Romans. The Romans had animals and these animals produced methane gas. The blacksmiths (herreros) also burned wood that increased greenhouse gasses. As the roman empire ended, the emissions decreased for a short time. But the development of global agriculture and the industrial revolution led to an increase in greenhouse gas emissions. This discovery has changed the way scientists think about pollution caused by humans. It seems that humans have been polluting the environment longer than we thought.

New York City: How the Car Saved the City

Before cars, people used horses for transportation. In 1880 about 150,000-175,000 horses lived in New York City. But all of these horses living in the cities caused problems. Horse manure filled the streets. The manure could not be cleaned up fast enough. Therefore, about three to four million pounds of manure were added to the city streets every day. It was estimated in 1984 that if nothing changed, the city would be in 9 feet of horse manure by 1950 In addition to manure, urine, flies, and dead horses filled the streets. These pollutants all caused disease and sickness in the city. Horses also used many resources. For example, horses ate food grown on 5 acres of land in a year. This amount of land fed only 1 horse in a year but could feed 6-8 humans in a year. The problems of using horses increased as the population increased and as the standards of living increased because more people with more money meant more horses doing more things. In the 1890’s the electric streetcar replaced the horse as the method of transportation. Soon after, the internal combustion engine was improved. This led to the invention of cars. Cars were cheaper to own and use than horses and horse vehicles. Cars were also faster. In 1900, 4,192 cars were sold in the United States. By 1912, that number increased to 356,000 cars. In the 1920’s, trucks were also sold and they replaced all of the horses in the city. Cities became much cleaner. Cars and trucks had reduced the local pollution in the cities. Although automobiles contribute to local and global pollution, compared to horses they are much cleaner.

London and the Great Smog of 1952

Although London seems like a clean city, it once had air pollution as bad as Beijing, China or Mumbai, India. The Great Smog in London started on December 5, 1952. The cold weather collected air pollution and a thick layer of smog covered the city. The smog was so thick that you could not see across the street. In some parts of the city people could not see their feet. Many people could not travel or leave their homes. People tried to protect themselves by wearing masks on their faces, but they did not help very much. The air pollution came from burning coal that was used to heat homes and power the city. The Great Smog ended on December 9 because the weather changed. By this time, around 4,000 people had died because of the smog. Eventually, 12,000 people died from the smog. Many other people got sick because of the smog and had difficulty breathing. In 1956, British Parliament passed the Clean Air Act. The Clean Air Act decreased the amount of coal burned near the city and increased the use of cleaner sources of fuel like electricity or gas. This and other changes have improved the air quality in London and prevented any similar events. 

China and India’s Pollution Problems



Scientists from the Health Effects Institute discovered that India and China have the deadliest air pollution in the world. The scientists found that air pollution caused over 4.2 million early deaths in the world. 25.7% of that number is from India and 26.1% is from China. The increases in industry and population growth have caused pollution in Chinese and Indian cities to grow. 10 of the 20 most polluted cities in the world are in India, and 5 of 20 most polluted cities in the world are in China. China is working to reduce the air pollution and number of early deaths that it causes. China now controls the amount of coal burned and is looking for ways to burn coal that produce less pollution. China has also eliminated types of cars that produce the most pollution and limited the amount of cars allowed on the streets during popular traffic times. However, even with all this China has only reduced the death rate from air pollution by 2%. India has bigger problems than China in controlling pollution. India needs cheap coal for energy and does not have the money to develop cleaner energy sources. If the Indian government does not make changes to control the pollution, the health problems and deaths will likely increase. In the meantime, citizens of these developing cities must live with the pollution. Many people wear masks to try to stop breathing in the pollution. Wang Zhijun, a fashion designer from Beijing, has even started making fashionable pollution masks out of trainers from popular brands such as Nike and Adidas.