Transport

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Ready-Ed Publications

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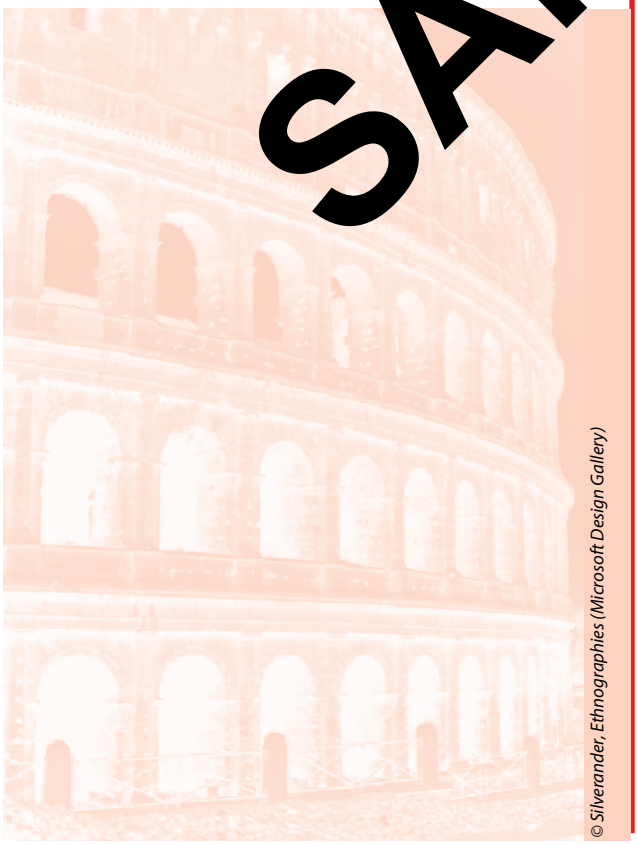
The Race is On!

Chariots were one of the earliest forms of wheeled transportation. In ancient Egypt they were used mainly in battle. They consisted of two horses pulling a wheeled platform on which there was a driver and an archer with a bow and arrow. The Egyptian chariot, used from around 1500 BC, was designed so that the rider stood directly over the wheels. This made the weight for the horse to pull somewhat lighter.

Chariot racing was one of the most popular sports in ancient Greece. One of the first recorded races was around the stump of a tree. The winner took home a slave and a cauldron as his prize. Chariot racing was added to the early Olympic Games in Greece around 680 BC. Contestants had to make twelve laps around an arena called a Hippodrome. There were very sharp turns at either end, which made it a very exciting and dangerous event.

The ancient Romans also raced chariots. They wore protective gear and wrapped the reins of the horses around their arms, which meant if they fell off, they often got dragged along the ground. They carried knives with them to cut the reins in emergencies. Unlike the Greek slaves who received no recognition for their wins, the Romans gave the lowly winning drivers a small prize. Those who won many races could save up their loot and buy their freedom.

The emperors would come to watch the chariot races, along with ordinary citizens and even slaves. It was a place where people could see their leader sitting in the best viewing position. In Rome, the most famous arena was called the Circus Maximums. It held up to 150,000 spectators (some sources even say that 250,000 could squeeze in) - more than the number of seats in Telstra Stadium, used for the Sydney 2000 Olympics ■



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A Squeaky Signal

Initially, the wheels of chariots were quite squeaky...everyone could hear them coming! Then the axles were covered with copper and bronze to stop the wheels from making so much noise.

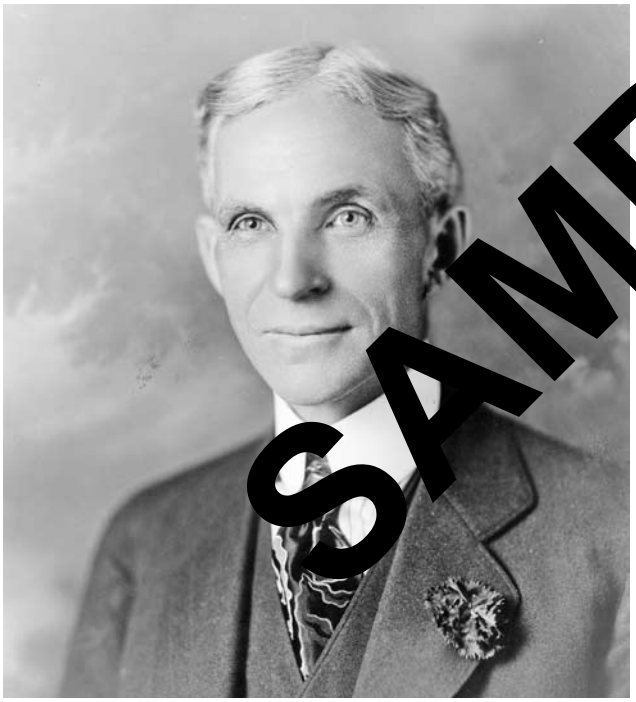
Go the Blues!

There were teams developed in chariot racing, such as the Reds, Blues, Greens and Whites. Just like today's sporting teams, drivers were traded from team to team! Cheating became more common as time went on, including the practice of placing curses on the opposing teams.

A T-op Model

Henry Ford (1863 - 1947) was an influential man in the world of automobiles. He developed a production method called assembly line production which enabled many vehicles to be produced in a short amount of time. His most famous creation was the Model T Ford. By 1927, there had been 15 million of these Model T s manufactured. By this stage, a Model T was being produced about every 20 seconds!

Henry Ford paid good wages to his factory workers and even introduced an English school for foreign employees. He was considered a good and generous man.

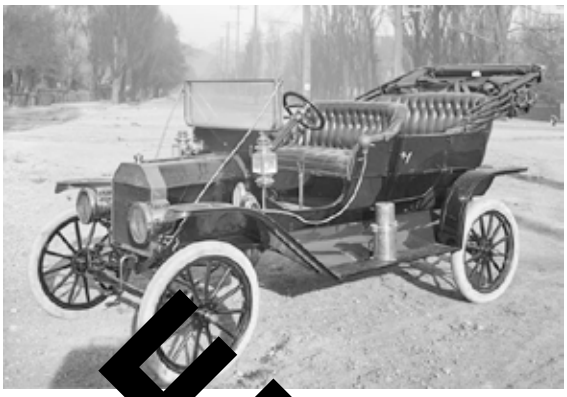


c. 1919 Hartsook photo. Courtesy of the National Photo Company Collection, Library of Congress, Prints & Photographs Division [LC-USZ62-1112278]

From A to Z

Ford named his models of cars after letters of the alphabet. Many were not a huge success. Strangely, the car that Ford developed after the Model T was called the Model A!

So what was the Model T like?



1910 Model T Ford [illegible]edia Collections

- *The first Model T sold for $850 when other automobiles were selling for about $5,000. Later the price was dropped even more so that the everyday person could afford to buy a car.*
- *The Model T was only available in black for quite a few years, as black paint dried the fastest, thus more cars could be produced. Later, a variety of colours were available.*
- *The original lights were not electric, but ran on oil and gas.*
- *The steering wheel of the Model T could be removed quite easily.*
- *There were three pedals on the floor of a Model T. The one on the left was first and second gear, the middle one was reverse and the right one was the brake.*
- *The Model T came with no luxuries. Even things such as gas gauges (to show how much gas fuel was left), a speedometer and windshield wipers had to be bought as extras from other companies.*
- *Other unusual accessories that could be purchased in the 1920s included a car bed, a tilting steering wheel to make more room when getting in and out, and a side luggage carrier (like a roof rack on the side of the vehicle).*
- *The fuel tank was under the driver's seat to refuel the car and the hose had to be passed through the driver's window!*

Training for the Future

Maglev Trains

A new type of train is set to make train travel even faster in the future. Magnetic Levitation or Maglev trains use magnets to make the train actually float above the track. These trains have no wheels. Instead of an engine, special magnetic coils inside the tracks propel the train along by repelling and attracting magnets in the undercarriage of the train. The way that the magnetic fields keep the train floating above the track means that friction is reduced (the train is not dragging against anything) and the train can travel much faster.

Trains like this have already been built in Germany and Japan, and reach speeds of up to 552 kilometres per hour. It is thought that by the year 2020, Maglev trains may reach speeds of 800 kilometres per hour.

Another idea that scientists are thinking about for Maglev trains, is to run them in a vacuum tube - a tube without any air in it. Having no air to resist the movement of the train would mean that trains could travel up to 3,000 kilometres per hour. If a vacuum tunnel was built under the ocean, people could travel from England to America in less than two hours. This journey takes six or seven hours by plane!

A Maglev train. Wikimedia Commons.

Track Records

Mount Pilatus. Wikimedia Commons.

- The steepest railway in the world is in Switzerland. It travels up Mount Pilatus at a maximum gradient (slope) of 48 degrees (check this out on a protactor).
- The longest stretch of railway without any curves is in Australia. It runs for 478 kilometres across the Nullabor plain. (Look in an atlas to see where this line would go).

Mount Vesuvius. Wikimedia Commons. (GFDL ©Pastorius)

- In Italy, in 1880 there was a railway built that went to the top of Mount Vesuvius, an active volcano! Eruptions in 1906, 1911, and 1944 covered parts of the system in ash, posing an obvious safety risk, and the railway was closed down.
- The heaviest train in the world was a freight train in Australia in 2001. It was 7.3 kilometres long and weighed 95,000 tonnes, about as much as 27,000 elephants!