

Prosofski, Lisa. "The Story Of... the Shapes of the Continents." *Guns, Germs, and Steel*. PBS, 2005. Web. 27 Oct 2013.

### **The Story Of... The Shapes of the Continents**

One of the most surprising revelations in *Guns, Germs and Steel*, revolves around simple, basic geography: the shape of the continents themselves.

The product of millions of years of geological flux, continental shape may have had a fundamental impact on the progress of human societies.

Continents that are spread out in an east-west direction, such as Eurasia, had a developmental advantage because of the ease with which crops, animals, ideas and technologies could spread between areas of similar latitude.

Continents that spread out in a north-south direction, such as the Americas, had an inherent climatic disadvantage. Any crops, animals, ideas and technologies had to travel through dramatically changing climatic conditions to spread from one extreme to the other.

Technologies such as gunpowder were able to migrate 6,500 thousand miles from China, where they originated, to Western Europe, where they reached their apogee, in a matter of centuries. The wheel, on the other hand, developed in southern Mexico, never even managed the 500-mile journey south to the Andes.

But the influence of continental formation runs even deeper than this.

Some have argued that coastlines, mountains and valleys may help us understand something as fundamental as the differing historical paths taken by Europe and China.

This is a puzzle which has occupied historians for generations. Given that Chinese civilization had evolved for almost as long as the civilizations of the Fertile Crescent, and by extension, Europe; given that China had even developed a phenomenal navy capable of trans-Pacific exploration nearly 100 years before Columbus set sail for the Indies, how come Europeans were the ones who took over the world – and not the Chinese?

Jared Diamond believes geographical phenomena can explain these differing paths.

Chinese civilization was founded on the domestication of irrigation-dependent crops. Rice grows in the wild along riverbanks and in swampy regions where the grasses enjoy year-round partial submersion. In order to replicate this environment, the earliest Chinese farmers had to construct fairly complex systems of irrigation, supplied by the Yangtze and Yellow rivers. This, it is argued, influenced the development of two social phenomena. First, the establishment of a central social organization and hierarchy, founded upon the construction and maintenance of

irrigation networks. Second, because of the geographic distribution of the Yellow and Yangtze rivers – flowing almost parallel to one another, from central China to the Pacific coast – Chinese civilization grew organically outwards, from one central-east heartland – a heartland which controlled the mechanics of irrigation.

European civilization, on the other hand, was founded upon the domestication of rainfall-dependent crops – wheat and barley, which will grow anywhere, as long as it rains for part of the year. This, Diamond argues, allowed farming communities, villages, towns and eventually cities to emerge autonomously, all across Europe. There was never any need for a central authority to control irrigation across the continent. Instead, from its very inception, European society was destined to become fragmented – independent, autonomous and competitive.

So what about the shape of the continents?

China is essentially a fertile basin, enclosed by a ring of insurmountable geographic obstacles – ocean to the east, desert to the north, mountains to the south and an enormous, man-made wall to the west. This centrally-organized culture, which could expand rapidly for thousands of miles right up to its natural borders, could exist quite happily in isolation providing irrigation agriculture was maintained. It had no need to compete with neighboring states. In fact, the basin of China was so vast, there were few neighboring states, and for thousands of years the Chinese empire progressed along its own isolated path.

Europe, on the other hand, with its four mountain ranges, five peninsulas, dozens of rivers, islands, and proximity to the coast of North Africa, was geographically destined to become a cultural melting pot. Independent, organically grown states emerged cheek by jowl, and were separated by distinct, but not insurmountable, geographical barriers.

In 1492, rejected by the King of Portugal for lack of funds, Christopher Columbus simply travelled to Portugal's neighbor and rival, Castile, and instead pitched for exploration funds there. Fuelled by the desire to compete, patrons and princes throughout Europe were prepared to invest in outlandish ventures, and provided Columbus with the necessary capital to explore new lands.

In China, the greatest treasure ships that the world had ever seen, were disbanded one day, on the whim of an Emperor. Unlike Columbus, the Admiral of the Imperial fleet, had no rival princes on whom he could call. There was little incentive for China to seek its fortune outside of its heartland – the Empire had everything it needed, right in its own backyard. And in such a vast nation ruled by the will of one man, there was simply no choice but to obey.

Simply put, the ramifications of basic geography could be profound: Spain claimed the Americas instead of China, and Europe soon conquered the world.

<http://www.pbs.org/gunsgermssteel/variables/continents.html>

