**Technology:** The Mongol influence on the spread of technology was incredible. Although Mongol control of Asia lasted less than 200 years, a huge number of critical technologies spread during that time. Mostly that movement of technology went from the East to the West. Europe and the Middle East received the knowledge of gunpowder, paper, compasses, and blast furnaces during this time—all of which would be critical for Europe’s impending rise to power. East Asia got considerably less but Middle Eastern astronomical knowledge and optical glassmaking was probably the most significant as it launched a small renaissance of Chinese astronomy. The Chinese also got the trebuchet from Europe, which was a critical weapon in the Mongol Conquest of the Song Dynasty.

The Mongols also were inventors. Their most notable inventions were the hand grenade and dried milk—both of which would be happily embraced by all corners of Eurasia.

**Who got what during this exchange?**

<table>
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<th>China</th>
<th>Middle East</th>
<th>Europe</th>
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**Why did this exchange happen?**

**Culture:** The Mongols were limited by their own abilities. They were not a specialized society (since they were not farmers) and therefore did not have a lot of technical specialists. However, they were extremely good at finding people who did have those specialties and then using those people throughout the empire.

The most significant were Persian Bureaucrats. Various empires had ruled Persia for 2,000 years and the Persians were therefore very good bureaucrats. For what it’s worth, the Chinese were probably just as good of bureaucrats but the Mongols hated the Chinese (who they called the Stinking Ninth). The Mongols used Persians throughout their empire. In doing so, they introduced huge Muslim populations to East and Central Asia. In general, the Mongols created a melting pot of cultures that had generally not highly mixed. Mostly these influences were felt in China and East Asia.

**How were places ruled by the Mongols affected by Cultural Diffusion?**

**Why did this exchange happen?**
Exploration: Due to the safety of Mongol Roads, there was also an unprecedented explosion of exploration across Asia. The most important explorer of the Era was Ibn Battuta—who travelled from Morocco and who gave detailed, accurate accounts of North Africa, Arabia, the Mediterranean, India, the Spice Islands, Central Asia, and China. There were also a large number of European explorers such as Marco Polo, William of Rubruck, and John of Plano Carpini—who gave detailed accounts of the Middle East, Central Asia, and China.

This is the first time that Europe or the Middle East had accurate information on East Asia and represents a massive step in the globalization of knowledge. After this, world maps would start to appear more reliable—especially those based on the knowledge of Ibn Battuta.

Why is this a large step in globalization?

Military Tactics: Genghis Khan and the Mongol Armies he inspired were centuries ahead of their time in military organization and tactics. Mongol battle plans and army dispositions are referenced both in Achtung Panzer! (which created the Blitzkrieg) and the foundational documents on Deep Operations—the two most successful military systems of World War 2 (which took place 700 years after Genghis Khan’s death). In general, Mongol armies were fast and extremely well organized. They were able to create local superiority in firepower even when outnumbered. This is why the Mongols generally won their battles even though they were almost always outnumbered 3 or 4 to 1.

The impact of Mongol military tactics was not immediate. Only the Middle East and Russia saw a sudden change in tactics because of the Mongols. The change would be for light cavalry with many horses each—speed over strength. The Mongols also inspired the world to use curved swords for horsemen rather than straight swords. However, the Mongol impact on tactics would be felt more in the modern era, where it was taken alongside the European development of combined arms tactics and field artillery to form new mobile tactics after the invention of the car, airplane, and tank.

What was the Mongol impact on military?

Why do you think this impact took a while to take place?

Disease: the interconnectedness of the Mongol world came with the downside that is always the case of interconnectedness. Knowledge and culture travel hand-in-hand with disease and the Mongol era saw a big one—the Black Death. Starting in China sometime around 1320, the Black Death spread to Africa and Europe by 1350. It was the world’s first truly modern pandemic and resulted in the deaths of 75 to 200 million people (between 25-50% of the world population).

Why does globalization spread disease?