

Panel 9: Global reconnection (1400 to 2000 AD)

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This panel begins 600 years ago, at 1400 AD, **(A)** chosen because this includes the beginning of the Voyages of Discovery, which gradually reconnected people from all over the globe who had been isolated since the Out-of-Africa migration of *Homo sapiens* about 60,000 years ago. In a more regional view, it is also the approximate date of the transition from the Middle Ages to the Renaissance, which has long been a major periodization boundary in Western history.

During the time interval of this panel, a number of serious natural disasters have been visited upon humanity. The Shaanxi event of 1556 **(B)** was the deadliest known earthquake, with huge numbers of people killed when their homes, excavated into loess, the soft, wind-borne glacial deposits, collapsed. The Lisbon Earthquake of 1755 not only largely destroyed Lisbon and most of the historical records of the Portuguese explorations, which may have been the beginning of modern science,¹ but shook the Enlightenment viewpoint in which the world was seen as a benign environment, designed by the deity for human life. Volcanic eruptions **(C)** in Perú and Iceland causes widespread crop failures, and two exceptionally violent volcanic explosions occurred in Indonesia during the 19th century, at Tambora and Krakatoa. Several recurrences **(D)** of the 14th century bubonic plague, or black death, occurred in Europe in the 17th and early 18th centuries, and the great influenza pandemic of 1918-1919 caused an enormous number of fatalities — even the lowest estimate exceeds the loss of life in World War I, and higher estimates are much larger

than that **(E)**. Meanwhile, the human population **(F)** continued to grow, at an accelerating pace, especially as the Industrial Revolution unfolded, reaching 1 billion in the early 19th century, and just over 6 billion by the year 2000.²

The global dispersal of *Homo sapiens* that began with the second Out-of-Africa migration about 60,000 years ago (Panels 6, 7) left all the continents except Antarctica, as well as many islands, occupied by human beings. Most of those people no longer knew how or when their ancestors got there, and were unaware of people who lived beyond their own networks of travel and communication. These tens of thousands of years of isolation came to an end, beginning in the 15th and 16th centuries **(G)**, when the Voyages of Exploration brought about the global reconnection which has led, in our times to the phenomenon of globalization.

Long-distance seafaring began with the seven voyages of the Chinese admiral Zheng He in the early 15th century. These giant expeditions with hundreds of large ships and tens of thousands of men seem to have been more about establishing Chinese dominance and extracting tribute from kingdoms around the known Indian Ocean than about exploring the unknown, and after Zheng died and a new Emperor took the throne, the Chinese abandoned long-distance seafaring.

Instead tiny Portugal, on the shores of the Atlantic Ocean and unaffected by the wars that distracted the major Atlantic-facing countries of England, France, and Spain, began the Age of Exploration. Driven by Prince Henry the Navigator,

tiny Portuguese caravels gradually explored the west coast of Africa, mapping winds, currents, and magnetic declinations, and discovering a sea route to India by the end of the 15th Century.

With the conquest of Granada completed in 1492, the Spanish discovered and colonized what turned out to be the two new continents of the Americas. For good or ill, humanity around the globe had been re-connected.

It is worth noting a disadvantage of the ChronoZoom design, in which each linear panel enlarges the most recent ~10% of the preceding panel. Although this honors the anthropocentric Big-History approach by zooming in on ever more recent episodes in the history that has led to present-day humanity, it does mean that historical details from farther back in time must be neglected. Nothing in Big History prior to 1400 AD can be shown at the scale of Panel 9, or at larger scale. This of course is a problem at every scale: Panel 3, for example, which shows the history of the entire Phanerozoic, cannot show the history of the Ordovician or the Cretaceous at the level of detail with which panel 4 portrays the Cenozoic.

As in Panel 8, we have shown, in the lower half of this panel, the global population and some natural events that affected human history. Again we have left the upper half of this panel blank for the user to fill in with a personal selection of events and trends from the vast cornucopia of knowledge available to historians of literate humanity.