

“The Dawn of Civilization: Metal Trade and the Urban Revolution”

Luigi Pascali

(co-authors: M. Flueckiger, M. Larch, and M. Ludwig)

Abstract

Approximately around 3300 BC, our ancestors experienced the Urban Revolution, a very rapid transition from agricultural villages to state-level, urban societies. In less than five centuries and in regions as far as the Nile Valley, Mesopotamia, Central Asia, and the Indus Valley, cities appeared for the first time in human history, together with writing, large states, and unprecedented levels of socio-economic inequalities. What caused this transition? Why did it emerge in some regions but not in others? We propose that the turning point is the invention of bronze, in the second half of the 4th millennium. For the first time in human history, elaborate trade arrangements had to be made: bronze is an alloy made with copper and tin and these two metals can be found only in remote regions that are very distant from each other. The trade routes connecting large populations with far-away mining regions were constrained to pass by some regional bottlenecks: it is precisely in these bottlenecks that a new elite, relying on taxing transit trade, could rise, leading eventually to the rise of cities and states. We test this theory by combining global data on the distribution of metal resources, ancient mining activity, ancient trade relations, and the spread of the urban revolution.