

## The Evolution of the Industrial Revolution: New World Cottons, Amerindians, and Mechanization of the English Cotton Industry

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Vortrag:

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Historians commonly point to the mechanization of cotton spinning as one of the most important aspects of the industrial revolution. While interpretations vary, most attribute the invention of these machines to human initiative in England by Englishmen in the eighteenth century. I am suggesting that we cannot understand the rise and success of these inventions without taking anthropogenic evolution into account. Amerindians, cotton plants, and 5,000 years of New World selection were probably just as critical to mechanization as were the English in the 18th century. Over 5,000 years, Amerindians created two long-fibered cotton species through selection. The New World species had fibers two and three times longer than the two Old World domestic species, which made the former far better suited to spinning by machine.

This paper is a case study of evolutionary history, which seeks to synthesize the insights of history and evolutionary biology to deepen our understanding of both fields. The central idea of evolutionary history is that people have shaped the evolution of populations of other species in historical time, which in turn shaped human experience. Most of these changes have fallen short of creating new species, and this case study provides an example of the ability of anthropogenic to have profound implications for human history.

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