Title: The Merging Destruction of Neanderthals

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The cause of the Neanderthals' disappearance is one of the great mysteries of anthropology. Neanderthals are known to be early ancestral species of humans, and it is known that when modern humans (*Homo sapiens*) arrived in Europe, the Neanderthal population was already quite small. To this day scientists debate whether this was due to violent replacement, the intelligence and brain size difference, the inability to adapt to the new environment (Katerina 2005), or interbreeding (Federico Sa'nchez-Quinto and Carles Lalueza-Fox 2015).

When two similar species are living in the same environment, the chance of mating with one another (hybridization) is likely. If mating takes place, the increase in genetic variation within the gene pool may solely cause the new generation to flourish while the elder generation perishes. With new species, comes adaptation to a new environment, and through natural selection, it is decided which species, if any, will go extinct: survival of the fittest. Broadly, this is what took place with Neanderthals and modern humans. Other scholars assert that climate change was a possible cause of Neanderthal elimination (William Davies & Piers Gollop 2003). As the climate warmed, the Neanderthals were unable to change methods of living, due to their intelligence, to survive. Unable to create new tools and hunting methods for their daily tasks, they were taken over by *Homo sapiens*. According to the research I have conducted, the most important reason for Neanderthals extinction is the interbreeding that took place between Neanderthals and *Homo sapiens*.

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