

DRAGUTIN GORJANOVIC KRAMBERGER, KRAPINA AND VINDIJA SITES AND THEIR ROLE IN NEANDERTHAL RESEARCH

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The two Croatian sites that have yielded Neanderthal skeletal remains – Krapina (Husnjakov brijeg) and Vindija Cave – have played a pivotal role in the study of human evolution and the development of modern palaeoanthropology as a scientific discipline. Excavations at Husnjakov brijeg in Krapina, conducted by Dragutin Gorjanovic-Kramberger between 1899 and 1905, produced one of the largest Neanderthal skeletal collections, representing individuals of various ages and both sexes. This exceptional assemblage provides unique insights into the population variation of Neanderthals living approximately 130,000 years ago. Numerous stone tools and faunal remains recovered from the site have also contributed to our understanding of Neanderthal behaviour. Gorjanovic-Kramberger's pioneering studies provided crucial evidence at a time when the age, taxonomy and phylogenetic status of Neanderthals were intensely debated.

Excavations at Vindija Cave, led by Mirko Malez, uncovered fragmentary remains of late Neanderthals dated to approximately 45 ka, when the first anatomically modern humans had already reached Europe. Certain morphological features of the Vindija Neanderthals have been interpreted by some researchers as evidence of either biological continuity or admixture with incoming modern humans. Archaeological finds from the site have also stimulated debate regarding cultural interactions between these populations. In 2010, DNA extracted directly from Vindija Neanderthal bones yielded the first draft sequence of the Neanderthal nuclear genome, demonstrating that Neanderthals contributed genetically to present-day human populations. This landmark discovery transformed our understanding of human evolution and helped establish the field of palaeogenomics.

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