

## KRAPINA NEANDERTHAL MUSEUM AS A WELL OF MEDICAL INFORMATION

### MUZEJ KRAPINSKIH NEANDERTALACA KAO IZVOR MEDICINSKIH REFLEKSIJA

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#### SUMMARY

*The new Krapina Neanderthal Museum consists of two sections: a section reconstructing the life of the Krapina Neanderthal and a section bringing the latest knowledge about the evolution of life on Earth. It is a well of scientific information, a teaching tool, and the world's largest find of Neanderthal fossil remains. This article briefly reports a tour visit of members of the Croatian Scientific Society for the History of Health Culture to the Museum, describes the facets of the exhibition, and gives the most important facts about the life of the Krapina Neanderthal.*

**Key words:** *history of medicine, palaeoanthropology, Palaeolithic, Neanderthals, Krapina Neanderthal Museum, Dragutin Gorjanović Kramberger, Krapina, Croatia*

With the new Krapina Neanderthal Museum, opened on the 111<sup>th</sup> anniversary of Gorjanović's fossil discovery of *Homo sapiens neanderthalensis* at the Hušnjakovo find in Krapina, Croatia, the Krapina Neanderthal received due museum exhibition of the highest level, attracting swarms of natural history enthusiasts who wish to know more about this rich palaeoanthropological heritage. For physicians and historians of medicine, the exhibited variety of fossil bones of human and animal origin and reconstructions of chemical and biological evolution to this day is not only a well of information, but an inspiration to research further. At least this is

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Tour group before the Krapina Neanderthal Museum  
*Sudionici izleta ispred Muzeja krapinskih neandertalaca*  
(Photo by Igor Salopek)

how a group of members of the Croatian Scientific Society for the History of Health Culture, headed by professor Anton Škrobonja, saw it when they visited the Museum, the Hušnjakovo find, the town of Krapina, and the Trakošćan Castle (*Figure 1*) on 13 June 2010.

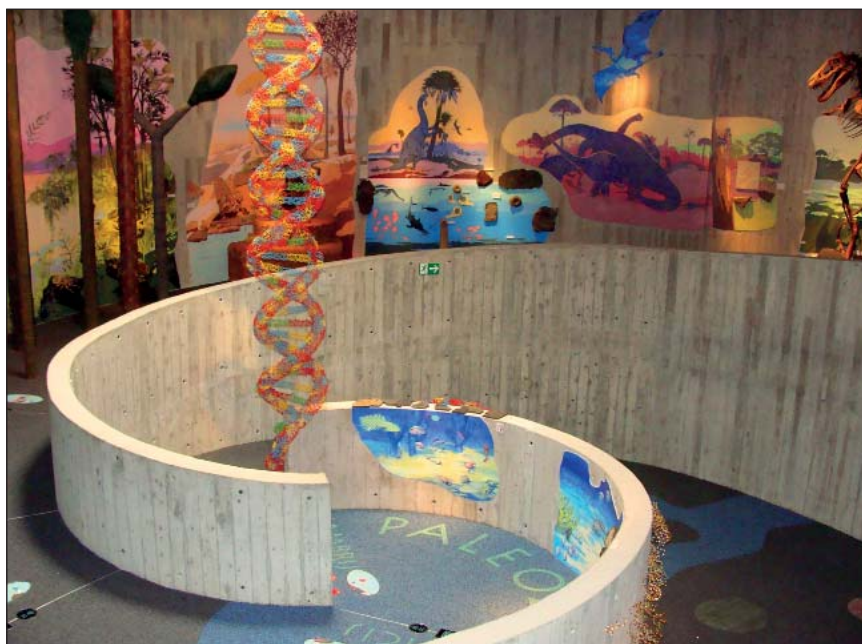
The Krapina Neanderthal Museum is located in Hušnjakovo, a western part of Krapina. Krapina is the heart of the Croatian province of Hrvatsko Zagorje, the birth place of the Croatian reformist Ljudevit Gaj and of a great historian of medicine Mirko Dražen Grmek. Krapina boasts one of the most beautiful Baroque church buildings in Croatia, Our Lady of Jerusalem, and one of the oldest Red Cross societies which dates back to 1885 [1]. But it is the discovery of the human fossil remains that have made the town known worldwide.

The new Krapina Neanderthal Museum was opened on 27 February 2010, after eleven years of construction [2]. The building has been designed by architect Željko Kovačić and the exhibition set up by palaeontologist Jakov Radovčić. Squeezed between two slopes, Hušnjakovo and Josipovac, the Museum reminds of a semi-cave. Right from the entrance it is divided in two sections; the first brings current scientific knowledge on chemical and biological evolution and the second attempts to reconstruct the life of the Krapina Neanderthals, while a part is dedicated to the time of their discovery at the end of the 19<sup>th</sup> century. The Museum pays due respect to this world heritage, yet acts as a contemporary educational tool that relies on life-size figures, multimedia, and interaction, and encompasses discordant approaches to human evolution. Seventeen life-

size figures impressively portray Neanderthals of both sexes at the age from two to forty years. To seem alive, the figures are made of silicon and human hair, using new techniques (Figure 2). No less impressive is the “evolution coil” offering a meticulous chronology of life’s evolution on Earth since the “big bang”, over the first organic macromolecules and multiple-cell organisms to all forms of humanity (Figure 3).

### THE LIFE OF KRAPINA NEANDERTHALS FROM MEDICO-HISTORICAL POINT OF VIEW

Fossil remains and lifelike reconstructions make the heart of the Museum. *Homo sapiens neanderthalensis* was discovered in Hušnjakovo in 1899 during geological and palaeontological excavations headed by the celebrated Professor Dragutin Gorjanović – Kramberger [3]. Excavations lasted until 1905 and yielded over five thousand artefacts, 874 fossil remains of human origin and over a hundred pieces of the cave bear, giant deer, Merck’s rhinoceros, feral cattle, wolf, elk, and other animals, making it the



"Evolution coil. Krapina Neanderthal Museum  
„Evolucijska pužnica“, Muzej krapinskih neandertalaca  
(Photo by Igor Salopek)



Krapina Man family in the Hruševo cave.  
*Prikaz obitelji Krapinskog pračovjeka u polupečini Hruševo*  
Photo by Danijela Tomić

world's largest collection of items from the Neanderthal times (Figure 4). The excavated artefacts included Mousterian-style flint tools (spikes, scrapers and daggers) belonging to a culture that knew how to use fire. The site is estimated to go back to the Palaeolithic, some 130,000 years ago.

The morphological features of the Krapina Neanderthal include low to medium stature, strong musculature, low brow, and prominent orbital bones, teeth, and viscerocranium [3,4]. A medical historian would find Dragutin Gorjanović's description of the Neanderthal's illnesses particularly interesting, such as the following taken from his 1918 book *The Neanderthal of Krapina*:

*It is perfectly logical to assume that these Neanderthal men, who spent day and night in the open, eating a simple diet, had to be healthy and less prone to illnesses we have today. Accidents were therefore far more common in their struggle to survive and caused injury or even mutilation to the body.*

Or:

*[...] An example is the Neanderthal collarbone (clavicle) which had been broken due to a fall or a blow, and which has knit back together. [5]*

There is no doubt however that the Krapina Neanderthal was subject to a number of diseases, including severe rheumatism, arthritis, and tuberculo-

sis, whose marks have remained on the bones. A nice example is a well preserved lower jaw with visible traces of periodontitis and \*\*\*\*\* [6,7].

The Neanderthals' robust figure reflected their lifestyle. They were nomad hunters who made primitive stone tools and used fire [3,4]. The controversy between eminent researchers whether they were cannibals still remains. Here is what Dragutin Gorjanović had to say on this issue:

*The reader might wonder where I got the idea that the Krapina Neanderthal practiced cannibalism. Here is where: the human bones found in that cave were all broken, especially the sturdiest among them, the thigh bones. These bones were broken raw by blowing off the joint ends on each side, which ripped the cylindrical body of the bone open. Removing debris would then expose the marrow. The reader may find it interesting to note that not a single bone was found intact; all thigh bones, leg bones, and even arm bones were broken for this purpose. Moreover, there were other human bones, including skulls, that were broken and burnt on fire. Soon there will be more news supporting that this Neanderthal man of ours treated these gnawed on and broken bones of his tribespeople the same way he treated animal bones, scattering them all over the cave. [5]*

Some healed bones, however, suggest that these same tribespeople treated and cared for those in need. This sheds a new light on this extra-



Lower jaw with visible traces of periodontitis and bone resorption. Krapina Neanderthal Museum

*Mandibula s vidljivim parodontitisom i limbalnom atrofijom. Muzej krapinskih neandertalaca, Krapina*

Source: Saopćenja 1969; 4: 185 – 190.

ordinary site, and yet leaves a shroud of mystery about the life of the Krapina Neanderthal.

The Society's members spent the rest of the trip visiting the landmarks of Krapina and the gem of Croatian cultural heritage, the Trakošćan Castle, dating back to the 13<sup>th</sup> century. This was an occasion to see the permanent exhibition on the life of local noblemen over the last five hundred years. This concluded the tour to Hrvatsko zagorje, but the impressions and the experience taken home will surely inspire new research and lead to new insights.

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## SAŽETAK

*Novootvoreni Muzej krapinskih neandertalaca s dvosegmentarnim postavom: prikazom karakteristika života krapinskog pračovjeka te suvremenih znanja o evoluciji života na Zemlji izvor je znanstvene, stručne i edukativne spoznaje posjetiteljima, kao i reprezent najbogatijeg nalazišta fosilnih ostataka neandertalaca u svijetu. U ovom radu ukratko je prikazan stručnoznanstveni posjet Muzeju članova Hrvatskoga znanstvenog društva za povijest zdravstvene kulture, ispreplećući pritom opis funkcije i postav Muzeja s najvažnijim činjenicama o životu krapinskog pračovjeka.*

**Ključne riječi:** povijest medicine, paleoantropologija, paleolitik, neandertalci, Muzej krapinskih neandertalaca, Dragutin Gorjanović Kramberger, Krapina, Hrvatska