

LETTER TO THE EDITOR

LEOPOLDO MAGGI: PHYSICIAN, ANTHROPOLOGIST AND ARCHAEOLOGIST

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**Dear Editor,**

This article is dedicated to Leopoldo Maggi, a leading scholar of the second half of the nineteenth and his important contributions in the field of archaeological research. The truth about human evolution can be achieved by the scientific analysis of bones. This could be Leopoldo Maggi's scientific motto, if he had ever written one. Maggi wrote no mottos but left to modern scientists a very important anthropological and paleontological heritage<sup>(1)</sup>.

He was indeed able to achieve modern results without using modern tools of analysis. He was a physician, a naturalist, and a researcher. He taught Anatomy and Physiology at the University of Pavia. During his academic career, he applied his naturalistic and archeological expertise, combined to his medical and biological knowledge, to solve historic enigmas. He devoted a lot of time and energy to prove the human presence in Lombardy, Northern Italy, during or after the Glacier Age. To a great many, this theory was a scientific utopia. His best chance to study a controversial ancient find appeared to him in 1876, when a human skull was recovered inside the tuff cave in Valganna (Varese).

Professor Giulio Cesare Bizzozzero revealed the astonishing news about Maggi's discovery in a letter to the National Museum of Varese, published by the local paper Cronaca Varesina. "*The Valganna, specifically the Fontana degli Ammalati, is among the places that our ancestors preferred. This location was indeed a perfect spot where they could build safe and comfortable shelters, as there were many caves. There was also a small river, which facilitated the*

*transportation... Thanks to the recovery of human bones and animal bones such as goat, bear, and ox, we can affirm that it is possible that men lived in this area even before the construction of stilts.*" Professor Maggi was in charge of analyzing the skull from the anthropological point of view in order to trace it back to a precise moment of the human evolutionary process<sup>(2)</sup>. He was, of course, not new to this kind of challenges. In the past several archeologists had asked him to analyze their bone findings. Due to his naturalistic - medical background and his interest for Ancient History he was the perfect candidate to solve complicated historic puzzles. Such as the one about the necropolis discovered in Casteggio (Pavia) in 1871. The structure and supply of the tombs recalled the Ancient Roman Empire. Maggi performed an anthropological examination.

The Società Italiana di Scienze Naturali published the results of his research in 1872. The main goal was to reconstruct the paleontological -biological and phenotypic profile of the ancient people living in Voghera. In order to collect this data, he studied the anthropometric measures of the skulls. Actually he analyzed only seven skulls, as the others were in very bad conditions.

The results of these investigations can't, of course, be considered representative of the whole Voghera's ancient population. Nevertheless, they are astonishing from the life span and racial diversity points of view. Except an individual who died at thirty-five and two that passed away at about sixty, the average age at death was fifty. The paleontological and morphological reconstruction of the skulls, obtained by the evaluation of the craniometrical

measures and the calculation of the cephalic index, proved beyond any doubts the racial diversity of the population. Some cranes were brachycephalic (round shape of the crane), while others were dolichocephalic (elongated shape of the skull). Maggi was very knowledgeable with current Physical Anthropology. To validate his anthropometric researches, he compared them with Brocca's, Welker's, and Huxley's evaluations. It was by using the calculation of the cephalic index that Maggi tried to demonstrate that the Valganna skull belonged to a period previous to the last Ice Age. Again he compared those valuations with other skulls, ancient and modern. And his utopia slowly became a scientific truth. Another confirm of his theory came from Maggi's investigations on the flint point of an arrow found in Sabbione di Carbonara, a small village near Pavia.

The discoverers were puzzled by it, as it looked like it did not lose its original shape. Maggi was asked to give his opinion on the item. After having analyzed the edge of the point, he supposed that it had been made somewhere near the dig. The edge was indeed still sharp. For this reason he excluded that the tool could have been produced far away and then brought to Sabbione by the Ticino River.

A journey in the water would have rounded his shape. Lombardy's prehistoric past was slowly confirmed by what was found by accident or on purpose in the soil. After having read Maggi's entire scientific production, one can conclude that the skull found in Valganna was his most important archeological study. Luckily, today this crane can be observed at the *Museo Archeologico* in Varese. It still features the same characteristics that were described more than a century ago by Maggi. It consists of only the cap as most of the splanchnocranium is missing. By the size of the sutures, one can assume that the individual was no older than twenty-five years old. The shape of the skull cap confirms that he was a male. After a macroscopic observation, Maggi underlined the morphological difference with a modern skull.

The Valganna crane has a narrow and low frontal; a well-developed coronal suture (more than one cm high); strong frontal sinuses. Then he measured the cephalic index, as it varies a lot during the history of the human evolution. The result was 66,66, a value that proved a very pronounced dolichocephalic shape<sup>(3)</sup>. At this point Maggi, compared it with other modern and ancient cephalic indexes. The first comparison was with a skull found in Valcuvia and belonging to the Bronze Age, whose index of 78,11 could have trace the Valganna skull

back to a man, who lived before the Valcuvia's individual. The Maggi compared the Valganna crane with skulls, which belonged to Inuit and Ottentotti. These remains show an index of 69. He also studied it in comparison with Ancient Roman cranes<sup>(4)</sup>. Professor Giovanni Zoja, a friend and a colleague, let Maggi study the University of Pavia's collection of cranes, among which only one skull had a cephalic index similar to the Valganna crane. This finding was of a male who belonged to the Negroid race. Thanks to Doctor Daria Banchieri, the keeper of the *Museo Archeologico* di Varese, I had the opportunity to observe closely the Valganna skull and to witness how precise Maggi's evaluations were. During his entire life, Professor Maggi kept collecting data about the presence of the prehistoric man in Valganna.

Maggi was also considered a great expert in the study of ancient pottery, metal materials, and flint. He was often asked to analyze ancient artifacts, especially in the province of Varese. His constant interest for the prehistoric times, led to the construction of the Museo Patrio in Varese, where all his finding can be admired and studied. This collection is his most important scientific legacy. It is also the proof of the truth behind his utopia.

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