



the New World

Ten sets of human bones from Brazilian prehistory suggest that the first inhabitants of the Americas were not Mongoloids

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A good number of American archeologists like to say that Luzia is an aberration. An exception, and not the rule amongst the first inhabitants of the Americas, the so-called paleo-indians, usually described as Mongoloids, with oriental traits, similar to today's Asians and native Brazilians. Luzia is the name given to the skull of a young woman who lived (and died) about 11,000 years ago in the region of Lagoa Santa, in the environs of Belo Horizonte, the capital of the state of Minas Gerais, rich in prehistorical sites. The polemical bone find in Minas Gerais shocked the traditionalists for not showing cranial characteristics compatible with Mongoloid populations. Its features recall those of the present day Australian aborigines and African blacks. This discrepancy led researchers Walter Neves, from the Human Evolutionary Studies Laboratory of the University of São Paulo (USP), and Hector Pucciarelli, from the University of La Plata, Argentina, to propose, back at the end of the 1980s, an alternative theory to explain the colonization of the Americas. According to Neves and Pucciarelli, at least 12,000 years ago, the first waves of individuals similar to Luzia, coming from Asia, would have set foot in the New World. Also coming from Asia, the Mongoloids, from which all the indigenous tribes still to be found today between Patagonia and Alaska descend, would only have reached the continent some time afterwards. Both the populations used the same access path of entry to the Americas, the Bering Strait.

Using very high tones, the critics of this model say that the South Americans have constructed a thesis from just one skull. But new studies published by Neves and collaborators from 1999 onwards showing that pre-historical human populations similar to Luzia were not rarities in the Americas and that their geographical distribution was not restricted to the outskirts of the capital of Minas Gerais. Now, two works have just come out that provide support for the alternative theory on the colonization of the Americas. In an article printed in the latest edition of the British journal *World Archaeology*, a team of researchers



Skull from Cerca Grande:
like Luzia, it has an
anatomy similar to that
of present day Africans and
Australian aborigines

Internal and external view of the Cerca Grande complex of funeral sites: bone finds of 9,000 years ago

coordinated by Neves presents nine skulls found in Cerca Grande, a complex of seven prehistoric sites located in the region of Lagoa Santa. All the bone finds show Afro-aboriginal characteristics and an age estimated at about 9,000 years. "Luzia is not an anomaly", says Neves, whose studies are funded by a FAPESP thematic project. In another work, published in December in the American periodical *Current Research in the Pleistocene*, the archeologist from USP analyzes a skull, also roughly 9,000 years old and with black traits, that came from Toca das Onças, a site rich in prehistorical material located in Catinga do Moura, in Bahia. As opposed to the typical anatomy of the Mongoloid peoples, the skulls of the Brazilian paleo-indians are thinner and longer, with the jaws more thrust forward, and low and not very broad cheeks.



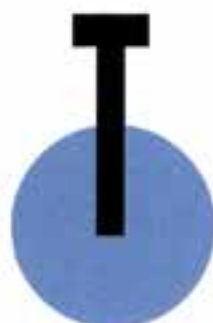
PHOTOGRAPH BY RAFAEL BARTHOLOMEO

Today, this archeological material is part of the collection of the museum at PUC/MG. The nine skulls from Cerca Grande were collected even longer ago, on a trip to Lagoa Santa made in 1956 by the American, Wesley Hurt, and the Brazilian, Oldemar Blasi, both archeologists. These fragments of skeletons are currently part of the collections of the National Museum of the Federal University of Rio de Janeiro (UFRJ). "The Cerca Grande site has all been destroyed, due to the removal of the limestone and calcite from the region", comments Blasi, who is 86 years old today, and went back to the place with Neves's team in 2001.

Neves decided to study in detail the skulls from Cerca Grande and Toca das Onças, in the hope of getting more in-

put for his thesis on the colonization of the Americas. He made it. "As I am facing a lot of criticism from colleagues, in particular from the United States, I decided to publish analyses about the largest possible number of prehistoric skulls from different sites in Lagoa Santa, from other places in Brazil, and even from abroad", says the archeologist from USP. Strictly speaking, he started this academic crusade in favor of his ideas in 2003, with an article in the *Journal of Human Evolution*, in which he analyzes six paleo-indian skulls (also around 9,000 years old), coming from Santana do Riacho, in the Cipó mountain range, a region not very distant from Belo Horizonte. And he intends to carry on, throughout the whole year of 2005, with this strategy of pointing out that Luzia was not alone. Neves promises to publish shortly evidence that there were also paleo-indians similar to the Australian aborigines in the state of São Paulo, and even in Mexico.

It is not easy to find evidence for the controversial thesis that the first inhabitants of the Americas were not Mongoloids. A human skeleton, or part of it, has to meet two requirements to be classified as belonging to a paleoindian of Negroid traits: to be the target of minimally reliable dating (the cost of which is very expensive) and undergoing rigorous statistical evidence about their ana-



The existence of such an old bone find, associated with non-Mongoloid populations originating from a region far away from Lagoa Santa, suggests that this physical type was spread through other parts of the country,

at some moment of prehistory. "Its geographical distribution was wider than used to be thought", comments Castor Cartelle, from the National Sciences Museum of the Pontifical Catholic University of Minas Gerais (PUC/MG), a co-author of the article on the skull from Toca das Onças. "Perhaps the presence of individuals of the black type occurred all along the basin of the São Francisco River, going as far as Piauí." Cartelle, incidentally, coordinated the team that found the human skull from Toca das Onças, in an expedition to the region of Bahia at the end of the 1970s.

THE PROJECT

Origins and microevolution of man in America

MODALITY
Thematic Project

COORDINATOR
WALTER NEVES – Biosciences Institute at USP

INVESTMENT
R\$ 538,172.80 and US\$ 76,000.00



Reconstitution of the man from Lagoa Santa: without any oriental traits

tomical conformation. Neves believes he has overcome these two stages in a satisfactory manner in his recent work with human bone finds in Lagoa Santa.

Of the nine skulls from Cerca Grande analyzed in the scientific article in *World Archaeology*, two had their age determined in a direct way, by the carbon 14 method. This kind of measurement, more reliable and the target of less criticisms, is only possible to be done when collagen has been preserved in the skeleton, something that is difficult to happen in the Lagoa Santa region. Luzia, for example, did not have this element that is indispensable for the carbon 14 test. Its antiquity was established in an indirect way, an approach that was also used to locate in time the other seven skulls from Cerca Grande. By this method, the researchers associate the object of their study – the skeleton of a human or an animal – with some element from the prehistoric site whose age is known or estimated, like rocks, artifacts, or sedimentary layers. "It isn't ideal, but we often have to resort to indirect datings", Neves comments.

To say that a prehistoric skull is similar to a given biological group, the re-



FOTOGRAFIA DE RICHARD NEVES

searchers resort to comparative anatomy. Neves makes a point of he himself carrying out the measurements of the skulls that are targeted in his scientific articles. This is how he guarantees standardization of procedures in carrying out the task. The measurements of the bones are submitted to computer models that compare them with dozens of physical parameters – in the case of Cerca Grande, 27 variables for the skulls of women, and 43 for those of men – displayed by the main biological groups

that there are in existence today in the world. After the comparison is concluded, the program positions the material analyzed, in relation to the contemporary physical standards. According to Neves, the computer models place the nine skulls from Cerca Grande, like Luzia and the material from Toca das Onças in Bahia, alongside the African ones from the Sahara and those of the aborigines from Australia – and far from the Mongoloids (the present day Asians and Amerindians). That does not necessarily mean that Luzia's people had dark skin, as people tend to think when they look at the artistic reconstitutions of the ancient inhabitants of Lagoa Santa. As the figures are made of dark clay, and their traits suggest populations that today are black, this impres-

sion, perhaps erroneously, has become widespread. "The color of the skin is a characteristic that can change rapidly, in a few generations", Neves comments.

There are some points that are difficult to comprehend in the alternative thesis advocated by Neves and his collaborators in the first *Homo sapiens* in the New World. The main one of them is the reason no descendants of these non-Mongoloid pioneers survived here. Nobody has a totally satisfactory answer to this question, but perhaps time and new archeological evidence will take care of resolving the controversy. In September of last year, for example, the news spread that a skull of about 11,000 years in age, from Mexico, known as Peñon woman, also displays physical traits similar to those of the people from Lagoa Santa. In 2003, an article came out in *Nature* in which 33 skeletons are described, also originating from Mexico, which show non-Mongoloid anatomical characteristics, similar to those of Luzia. They are not skulls of prehistoric peoples, but from a Mexican tribe, the Pericues, which lived in isolation until the 16th century in Baja California, when it became extinct after the Spaniards disembarked. If Neves' theory is correct, the Pericues were perhaps the last remnants of the first non-Mongoloid lineages that occupied the Americas. ●