

Palaeoanthropology of the Italian Peninsula

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The scientific activity of the group of researchers led by Mallegni concerns the biological characteristics of ancient human groups from the Mediterranean basin, from the most archaic forms to the protohistorical and historical ones. Of course, the questions posed by the most ancient groups are different from those arising from the other ones, and this largely due to the limited amount of material recovered.

Taking this factor into consideration we believed it opportune to give a minute description of the skeletal remains available, in order to assess the most noteworthy aspects of their evolution, in comparison with the previous and later inhabitants of the same area. As for the more recent human groups, although we have not renounced on a detailed anatomical description, we have tried to point out other, equally interesting, aspects of their interaction with the environment, such as way of life, nutrition, and pathological stigmata, which can be and often are the causes of different phenotypes, even within the same group. In fact, our research group has promoted this type of analysis since the very beginning of its activity. We were the first in Italy to use specific methods to discover the microelements which are present in bone fragments and are at the basis of nutrition, by means of atomic absorption spectroscopy. All our research findings have been published or are in the process of publication in the form of articles in the most important Italian or foreign journals.

The most ancient remains analysed were recovered at Riparo di Visogliano, on the Carso near Trieste, and at Venosa in Basilicata. Both studies are soon to be published in the French journal «*L'Anthropologie*». We feel it opportune to give a brief summary of the results of these studies.

The human remains recovered at Visogliano date back to Mindelian age, and consist of an upper premolar and the fragment of a mandible. The tooth shows a highly developed crown which recalls the homologous teeth of *Homo erectus* from Eastern Asia (*Sinanthropus*). The presence of enamel hypoplasia lines on the crown is very interesting and poses some questions in interpreting their cause (nutritional problems or diseases during enamel formation?). Here we are dealing with characteristics which give us an indirect picture of the possible way of life of these human beings, but the very small amount of remains prevents any diagnosis, even at the level of probability. We have therefore believed it opportune to limit ourselves to simple documentation. The mandible also demonstrates characteristic traits which include it in the taxonomic group of Asian *Homo erectus*, but recall even more the remains from Northern Africa, and in particular *Atlanthropus I*.

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All this shows that a phenotype homogeneity characterized *Homo erectus* during the most ancient stages of the population of the European territory. It is worth pointing out the presence of enamel hypoplasia lines also on the crown of the only premolar still preserved on the mandible. This mandible and the above mentioned upper premolar almost certainly did not belong to the same individual, since the upper premolar is much more voluminous than the tooth still present on the mandible.

The human remain recovered during the excavations at the site of Venosa is a femoral diaphysis. It probably belonged to a female individual, and dates back to Mindelian age. Its metrical, morphometrical, and morphological traits once again recall *Homo erectus* and, in particular, the specimens discovered at Arago.

The presence of a stratus of newly formed bone covering practically the whole surface of the find is quite interesting. The histological analyses on a fine section showed a diffused pathology at the level of the periosteum, with consequent formation of newly formed bone characterized by large ridges perpendicular to the surface. The external part of the tissue shows newly formed blood vessels. This phenomenon probably indicates the reaction of the organism to the infection caused by a deep wound which also affected the periosteum. This aspect is very interesting but, given that the remains consist of only one femur, it is better not to draw imaginative conclusions about the way of life of the individual to whom the bone belonged. We can only assert that, given the gravity of the pathology and the fact that the individual survived for a long time after the traumatic event (long enough for a conspicuous osseous covering to be formed), they must have had very strong organic defences.

Another analysed remain is the femur from Ponte Mammolo, which probably dates back to the Riss, a period in which the traits of most European hominids foreshadowed the Neanderthal phenotype. The study on this bone find has been accepted by the German journal «*Zeitschrift für Morphologie und Anthropologie*».

The femur is quite large in volume, and its diaphysial axis is curved as in the case of Neanderthals (it is very similar to that of Ehringsdorf). The shape of its pilaster (of the corded type) recalls that typical of more ancient specimens.

In 1984 we had the opportunity of analysing the prehistoric material recovered by Puccioni in 1919-1920-1922. This re-examination seemed opportune since some human remains found in the context of a Mousterian culture had been published as Eneolithic (FORMICOLA, 1980). On being subjected to an analysis of the contents under fluorine with the method used by Gottardi, along with bones from the same stratum of the archeological deposit belonging to animals which had lived on the land in the Mousterian (*Ursus spelaeus* and *Capra ibex*), they proved to be of the same period. It seems necessary, however, to make clear that only one of them belonged to a human being, and more precisely to a child aged about 9, with all the characteristics typical of the youth of *H.s. neanderthalensis* (BdT12) whilst the other, slightly more recent, proved to be a femur of *Cervus elaphus L.* (BdT1) (COTROZZI *et al.*, 1985).

In the same period we were involved with two other prestigious finds of Mousterian age: the first is the right parietal of a child of about 3 years of age. It was found near the village of Nicotera in Calabria in an archeological deposit,

probably going back to Würm 1; the second is an adult femur found in the «Grotta Santa Croce» at Bisceglie in a typically Mousterian context. Both the studies which derived from these finds have been accepted by the «*American Journal of Physical Anthropology*» (BONFIGLIO *et al.*, 1986) (MALLEGNI *et al.*, in press.).

In 1986, at the invitation of Ronchitelli of the University of Siena, we had the possibility of studying the mandible belonging to a child aged between 3 and 4, found in the hearth remains of a Mousterian deposit at Riparo del Molare near Scario (Salerno). Neither the study of the material culture nor that of the animal remains or the pollen are finished, and so we do not know to which period of the Würm they belong. Some evidence leads us to think that it may be a rather ancient moment of this glaciation. The metric, morphometric and morphological studies of the mandible show that although they demonstrate the variability typical of the Neanderthals, they also have some very archaic characteristics such as a conspicuous volume and, notwithstanding the diagnosed age of the person to whom they belonged, large teeth, an alveolar plane, and an upper transverse torus (MALLEGNI *et al.*, in press.).

Since 1986 we have been studying two skeletons from the Grotta delle Veneri at Parabita, which go back to the Upper Palaeolithic period, and 6 skeletons of the Epipalaeolithic period found in the Grotta di Romito at Papasidero. This research is part of a project launched by Vandermeersch of the University of Bordeaux and by myself, which foresees the systematic study of all the human remains appertaining to the Upper Palaeolithic period found up to now in Italy, or at least a re-examination of those already examined and published.

The most modern methods will be applied in an attempt to give an interpretation to recurrent characteristics in the various groups without undervaluing other aspects, such as possible pathological stigmata and nutrition.

As far as the Mesolithic finds are concerned we are studying those of the Abruzzo which have been discovered in recent years in the Grotta Continenza (L'Aquila), excavated by Grifoni-Cremonesi. These finds are proving to be extremely interesting as regards the problems connected with the Neolithic transition; cultural material and human bone remains of the earliest Neolithic period are, in fact, present on the same site. The Neolithic remains with which we are at present working come from the Mantuad area (Casal Moro) and from near Matera (Trasano). In the first case we are dealing with skeletons which go back to the ancient Neolithic, in the second to the Middle Neolithic period. In both cases the material is turning out to be particularly interesting because, over and above the specifically anthropological aspects, those palaeopathological will also be revealed.

In at least two of the skeletons there are clear signs of trephination of the cranium and the subsequent survival of the individual. These are aspects which have already been noted in other finds of the same and following periods. We think that this may afford us not only the possibility of making a comparative analysis of the operation techniques, but also an attempt at interpreting the significance of such surgical practices.

We also have a very copious series of protohistoric and historic finds, the study of which regards the palaeodemography of the following groups: the Eneolithics from Gaudio, Manerba sul Garda, and Liguria; the Protohistorics from Pontecagnano; the Etruscans from Tarquinia and Perugia; the Romans from

Villa dei Gordiani, and from the Capitoline Collections etc.; the Medieval of all periods from Piedmont, Tuscany and Calabria. A series of odontological and nutritional analyses will be carried out on these remains. As far as the latter aspect is concerned, we are already in the process of publishing in «*Anthropologischer Anzeiger*» a part of the results of this research, on the basis of which we have proposed a classification of the various types of alimentary economy of the ancient communities.

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