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ANTHROPOLOGICAL ASPECT OF ARCHAEOLOGICAL INTERPRETATIONS

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Abstract
The anthropological analysis of skeletal material under the auspice of 33rd Ephorate of Prehistoric and Classical Antiquities (Ministry of Culture) constitutes an important methodological tool for the archaeological research in the prefectures of Arta and Preveza.

First of all, I would like to give some geographical and historical information on these two prefectures. Arta and Preveza are neighbouring prefectures.

Geography and History

Prefecture of Preveza

Coordinates:	38°57′N 20°44′E / 38.95, 20.733
Elevation (center):	10 m (33 ft)
Periphery:	Epirus
Prefecture:	Preveza
Population:	19,605 (as of 2001)
Area:	66.8 km² (26 sq.mi.)
Density:	293 /km² (760 /sq.mi.)

On the 2nd of September 31 B.C., Octavius' fleet defeated Antonius and Cleopatra's fleet in a sea battle. The consequence of this sea-battle was the end of the Hellenic and the beginning of the Roman period. In memory of his victory, Octavius founded Nikopolis (Niko<*νίκη*=victory and polis<*πόλις*=city) on the southeast end of Epirus. Nikopolis grew quickly into a big city, endowing privileges and defects, as a "free" Greek city and its population consisted of Greek citizens of 20 cities of Etolia, Acarnania and Epirus, but also Corinth, even Italy, who were gathered together there by force. Therefore Nikopolis became a pole of attraction for the Mediterranean area, because of its three ports, its strategic geographical position as a junction between Greece and Italy and the refoundation of "*Aktia*" - which were held every five years – as a kind of Olympic Games. Strabo mentions that Nicopolis was one of the biggest cities.

Capital of the prefecture is named also Preveza and was founded in the end of the 12th century A.D., after the desertion of roman settlement "Nikopolis". Preveza was a place of rival between Venetians and Turks for over 200 years (1499-1718).

Prefecture of Arta

Coordinates:	39°9′N 20°59′E / 39.15, 20.983
Elevation (center):	30 m (98 ft)
Periphery:	Epirus
Prefecture:	Arta
Population:	40,000 (as of 2005)
Area:	48.0 km² (19 sq.mi.)
Density:	833 /km² (2,158 /sq.mi.)

In the 7th century B.C., Corinthians founded a colony named Amvrakia in an area which was settled already for more than 200 years. Amvrakia became capital Pyrrhus' Kingdom in 295 B.C. In 146 B.C. Amvrakia became part of the Roman Empire. The first time the town is mentioned as Arta is in 1082. In 1204, Arta became the capital of the Despotate of Epirus which covered most of north-western part of Greece and south part of present Albania. The Ottoman Empire conquered it in 1449. The city was annexed to Greece in 1881 with the treaty of Berlin.

The economy of the region was and remains -mostly- agricultural and cattle-breeding.

[1] Ephorate of Prehistoric and Classical Antiquities

Anthropological Analyses

In this area, excavation and caring of the antiquities is held by the 33rd Ephorate of Prehistoric and Classical Antiquities under the supervision and financial support of the Ministry of Culture. Its aim is to collect any possible information that can be derived from the ancient populations which had lived in the region.

Anthropologist has to answer the following questions in order to reconstruct life in ancient societies (Iscan and Kennedy, 1989):

1. Which population groups are answered?
2. Which was the size of the population group?
3. Which is the genetic relationship with the other (neighbouring or not) populations?
4. Which was their way of life?

First of all, the answers in the aforementioned questions can be given by the anthropological analysis. Use of reliable methodological tools can reconstruct ancient populations:

1. determination of sex and calculation of age using measurements and morphoscopic analysis.
2. study of diseases, illnesses and trauma in ancient or palaeontological samples.
3. study of stress markers. Osteological markers and traits are observed morphoscopically so that the skeleton can reveal its living occupations (such as extended upright posture or use of elbow) and daily activities (such as fishing or farming).
4. Nutrition habits and ancient DNA are investigated via biochemical analysis of skeletal samples.
5. Skeletal relics are categorized and recorded electronically and photographically. As a result, databases are formed and studied in order to recombine the socio-economic structures of ancient populations.
6. Kinships between individuals, familial and demographic populations are reconstructed and are placed in the ancient socio-economic web.

Co-working with Archaeology

Beside the anthropological analysis, data can be derived from the collaboration with the archaeological research. The collaboration of anthropologists and archaeologists in ancient societies research can be separated in the following sectors:

1. Recording and storing of skeletal material from older excavations. The material is grouped and transported in the laboratory of preservation in order to be labelled and studied.

2. Excavation and extraction of skeletal relics from the excavation sites. The bones that are revealed during the excavation are removed and recorded by anthropologists.

3. Exchange of information about taphonomy (meaning everything that concerns the burial of individuals) in order that the archaeological study is enriched with detailed pictures of burial practices and the anthropological research strengthens its conclusions.

4. Analysis of demographic data, hygiene and indicators of socio-economic status. Information about sex, age, health status, medical practices, as well as social and economic acts are exchanged between archaeologists and anthropologists.

After a preliminary examination of skeletal material in the prefecture of Arta, it was found out that the bones are in a quite good state of preservation. Factors that contributed in the above state are the environmental conditions and the proper procedures of excavation and transportation. "I have to strike to your attention that the studied so far skeletal material comes only from one cemetery. It is called ancient cemetery of Amvrakia, which is the ancient city mentioned before."

Up to present day, 163 skeletal groups from various excavation sites have been electronically recorded and there are more to come. Twenty seven (27) skeletal individuals were studied for determination of sex and calculation of age of death. Those individuals were excavated from the ancient cemetery of Amvrakia. The excavation took place between 1993-1997 with intervals. Though there was no anthropologist at that time in situ valuable information about the extraction of skeletons is gained by personal communication with the archaeologist that was in charge of the excavation.

Essential procedure that must be followed before the study of skeletal material is its preservation. The following steps will ensure the proper handling of bones.

First step is the cleaning of the dirt on the bones with water, toothbrushes and paintbrushes (Figs 1-2). Second step is preservation with mechanic or/and hand tools such as ultrasonic cleaning tool, scalpels and paintbrushes and the reconstruction and fixation of bones. These processes render skeletal material accessible also for future studies.

Figure 1: Use of ultrasound cleaning tool.

Figure 2: Reconstruction and fixation of skull fragments.

The first analysis that should be held is demography. Study of metric and morphoscopical traits particularly from the skull and the hip bone can give results on individual's sex and age. These data are extracted in statistic tables that present age and sex groups and mortality rates.

The figures (Figs 3-4) that were created by the analysis of data cannot be considered statistically significant since the sample is exceptionally small. The small number of sample is due to difficulties in categorizing skeletal groups. Bones are extracted in a fragmentary state because of the destructive nature of excavation procedure. Inevitably, identifying skeletal individuals from skeletal groups of bones needs time in order to avoid bias of scientific validity and, consequently, invalid identification of the individual.

Palaeopathology, palaeonutrition and study of metric and non metric traits has not yet begun because it is imperative to complete the demographic analysis.

Summary

Consequently, the loss or possible destruction of skeletal material only devastating can be considered. Losing important information that can be exported from bioarchaeological findings deprives archaeological research from a valuable methodological tool of study of ancient societies. Only with careful steps, can we advance in the *co-jump* of archaeology and anthropology into serving History.

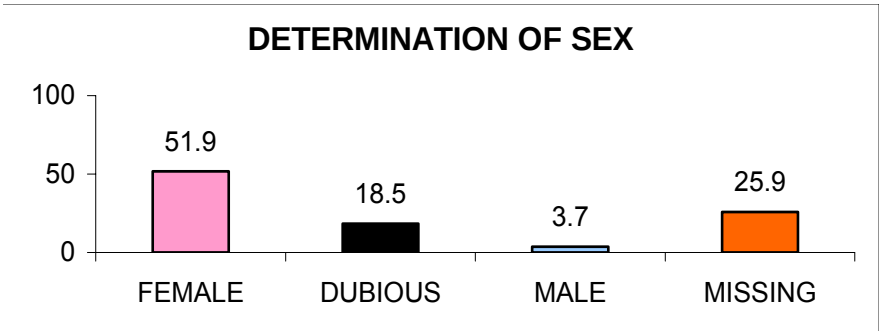

Figure 3: Statistic table presenting sex groups percentages.

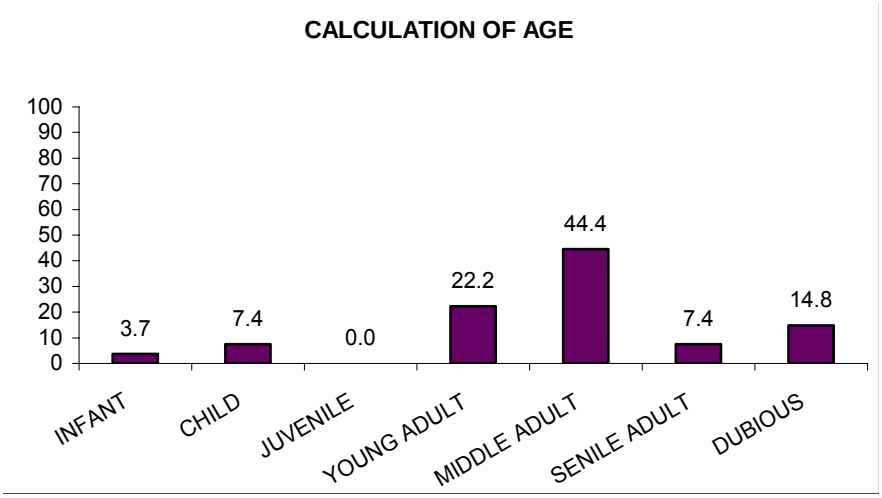

Figure 4: Statistic table presenting age groups percentages.

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