The XIVth Century Cemetery of Castel San Pietro (Bologna, Italy)

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Introduction

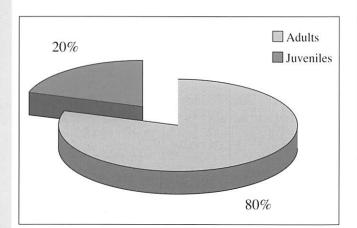
The excavation area of this XVIth century cemetery, of which we present a preliminary study, extends over that previously occupied by the cinema-theatre Bios, now transformed into private dwellings and in an archaeological area open to the public. This place was already known in the XVIIIth century beacuse of the discovery of an inscription in the area of a chapel dedicated to S. Peter, built in the XIVth century and demolished in the XIXth century. After a decade of abandonment the archaeological soundings and the excavation performed by the Soprintendenza per i Beni Archeologici dell'Emilia Romagna with the help of the Gruppo per la Valorizzazione della Valle del Sillaro took place between 1997 and 1999 and allowed the discovery of a late antiquity basilical structure transformed during the Early Middle Ages (Ortalli, 2003). The Late medieval phase is testified by a large cemetery in which 176 individuals (140 adults, 53 males, 47 females, 76 of undetermined sex and 36 juveniles) have been buried (graphs 1-4 show the paleodemographical data of our sample). We can notice that the sub-adult sample, representing 20% of the total number of subjects recovered, is mostly reprsented by individuals aged between 10 and 15 years, with few newborns, infants and children below 10 years. The adult sample is unfortunately represented in many cases (43%) by subjects too fragmented or badly preserved to allow a reliable sex diagnosis, however for those who could be correctly sexed males were 30% and females 27% of the total. Age at death of adults shows that females had a marked peak of mortality between 18 and 25, relevant also for males, which however tend to reach older ages. In order to verify our anthropological diagnosis of age at death through conventional methods, we analysed some samples applying the Cameriere dental method for age determination (Cameriere et al., 2006, 2007 a,b; De Luca et al., 2010) and the results of both our evaluations are presented in Tab. 1. In addition the human sample buried in Castel San Pietro cemetery showed evidence of heavy physical labour, skeletal and dental pathologies such as trauma, malnutrition, congenital anomalies, arthrosis, caries, parodontosis, calculus, ante-mortem loss of teeth and abscesses.

ТОМВ	SEX	Anthropological age	Dental age	Range
CSP 1	М	~40	39	35-45
CSP 2	F	17-25	24,1	17-25
CSP 4	F	17-25	24,2	17-25
CSP 5	M	30-35	30,6	30-45
CSP 16	F	25-35	29,6	25-35
CSP 17	F	17-25	19,25	17-25
CSP 18	F	25-35	40,1	25-35
CSP 20	F	17-25	21,1	17-25
CSP 21a	М	17-25	18,4	17-25
CSP 28	М	~35	40,8	30-35
CSP 35	М	~35	45,7	30-35
CSP 42	F	35-45	47,31	35-45
CSP 46	М	45-50+	56,5	45-55
CSP 51	F	25-35	37,2	25-35
CSP 54	М	25-30	26,2	25-30
CSP 70	F	35-45	54,2	33-45

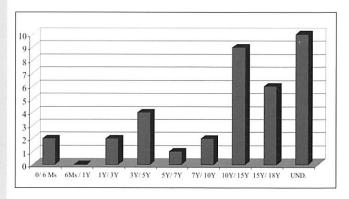
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ТОМВ	SEX	Anthropological age	Dental age	Range
CSP 90	М	17-25	20,2	17-25
CSP 93	F	17-25	21,3	17-25
CSP 115	М	33-45	62,2	33-35
CSP 161	F	33-45	56,2	33-45

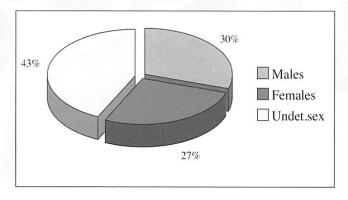
Tab. 1. The results of evaluations about dental age and anthropological age.



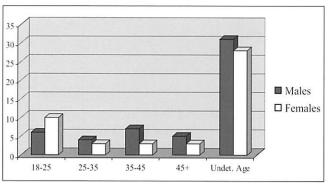
Graph 1. Adults and juveniles in the sample



Graph 2. The age classes of the sub-adult sample



Graph 3. The sex distribution of the adult sample



Graph 4. The age classes of the adult sample

References

Bertoldi F. 2009. Determinazione del sesso ed età alla morte. In: Mallegni F., Lippi B. (a cura di), Non Omnis Moriar, Roma: 31-57.

Cameriere R., Brogi G., Ferrante L., Mirtella D., Vultaggio C., Cingolani M., Fornaciari G. 2006. Reliability in age determination by pulp/tooth ratio in upper canines in skeletal remains. *J. Forensic Sci.*, 51: 861-4.

Cameriere R., Ferrante L., Belcastro M.G., Bonfiglioli B., Rastelli E., Cingolani M. 2007. Age estimation by pulp/tooth ratio in canines by peri-apical X-rays. *J. Forensic Sci.*, 52 (1): 166-70.

Cameriere R., Ferrante L., Belcastro M.G., Bonfiglioli B., Rastelli E., Cingolani M. 2007. Age estimation by pulp/tooth ratio in canines by mesial and vestibular peri-apical X-rays. *J. Forensic Sci.*, 52(5): 1151-1155.

De Luca S., Aleman I., Bertoldi F., Ferrante L., Mastrangelo P., Cingolani M., Cameriere R. 2010. Age estimation by tooth/pulp ratio in canines by periapical X-rays: reliability in age determination of Spanish and Italian medieval skeletal remains. *J. Archaeol. Sci.*, 37: 3048-3058.

Ortalli J. (a cura di) 2003. San Pietro prima del Castello. Gli scavi nell'area dell'ex-cinema teatro Bios a Castel san Pietro Terme (Bo). Firenze.