
Sex determination of the late Mesolithic individuals from the Strøby Egede burial, Køge Bugt, Denmark

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Abstract

In the summer of 1986 a mass grave was discovered in the course of expanding a carp pond along the bank of the river Tryggevælde where it empties into the Køge Bugt, the bay south of what is today Copenhagen, Denmark. The human remains, dating to the late Mesolithic Ertebølle culture, consisted of eight individuals of all ages, ranging from a 45+ year old individual to newborn children. Four individuals were arranged on one side of the grave, with four on the other, placed head to foot. Bioarchaeological analyses assigned one individual as female, one as probably female and one individual as male. Together with this assessment, and on the basis of grave goods, the burial was interpreted as consisting of four females arranged on one side, and four males on the other. The grave however has poor organic preservation, which has to date precluded successful A) direct radiocarbon dating, B) light isotope analyses of bone and dentine collagen, and C) aDNA analyses. Conclusions regarding the biological sex of the adolescents and sub-adults therefore remain presumptive. We applied an acid etch-based analysis of dimorphic sex chromosome-linked tooth enamel peptides to determine the sex of the individuals in the grave. Our results permit a direct discussion of engendered grave treatment and biological sex in non-adult individuals of the Ertebølle culture as young as ca. four years of age.

Keywords: Ertebølle, peptides, sex determination

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