

**10TH CENTURY (AGE OF THE HUNGARIAN CONQUEST)
CRANIOLOGICAL ANALOGIES OF THE 10TH-11TH CENTURY
POPULATION OF THE IBRÁNY-ESBÓ HALOM CEMETERY**

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Abstract

A search for 10th century regional craniological analogies of the 10th century population (16 males, 16 females) and the 11th century population (23 males, 22 females) of the Ibrány-Esbó Halom cemetery demonstrated that these populations had no significant local associations in the north-eastern region of the Carpathian Basin. While analogies of the 10th century population are to be found rather in the south-eastern region, those of the 11th century population can be identified rather in the Middle Danube region. It cannot be accidental that the greatest similarity can be demonstrated between the populations of these two regions in the 10th century (SZATHMÁRY, in press). It is noteworthy that the 10th century craniological analogies of the 11th-12th century population of Hajdúdorog-Temetőhegy, too, are to be identified rather in the south-eastern region than in its own (north-eastern) region (SZÜCS et al., 1996). All these analogies may suggest that the genetic roots of the presumed population alteration in the eastern part of the Carpathian Basin in about A.D. 1000 may originate from the gene pool of the Great Hungarian Plain and its periphery areas, i. e. the process was not connected with the population history events of Transdanubia.

Key words: Pagan and early Christian epoch, Carpathian Basin, craniology

Introduction

Between 1985 and 1990, ESZTER ISTVÁNOVITS excavated an undisturbed 10th-11th century cemetery of considerable extent (270 graves) at Ibrány (Upper Tisza region). On the basis of its clear inner chronology, this cemetery seemed to be suitable for a definitive interpretation of differences between the Pagan period population and the Early Christian period population (ISTVÁNOVITS 1996a, 1996b). Preliminary craniological investigations suggested that the Pagan period (Age of the Hungarian Conquest) and Early Christian period (11th century) populations differed from each other significantly, i. e. their genetic antecedents were shared to only a small degree, even Late Avar period anatomical parallels of the Upper Tisza region being detected in a virtually negligible percentage and only within the 10th century population. Thus, a break in the continuity of population history appeared at about the beginning of the reign of ISTVÁN I (AD 1000). The earlier population was followed by a population with an alien anatomical character, while the settlement history remained continuous

(SZATHMÁRY et al., 1996). This phenomenon can most probably be regarded as a general one for the Upper Tisza region (SZATHMÁRY, 1996).

In the present paper, an attempt has been made to estimate the frequency of craniological analogies of the 10th-11th century cemetery at Ibrány-Esbó Halom in five different regions in the central area of the Carpathian Basin.

Material and method

At Ibrány, the number of adult finds from the 10th century part of the cemetery was 16 males and 16 females, and from the 11th century part 23 males and 22 females (SZATHMÁRY et al., 1997).

As previously, the 10th century comparative material was composed of the finds of five geographic regions (SZÜCS et al., 1996). The principles of this process are summarized in the works of SZATHMÁRY (1996 and in press). This database was completed with the material of four additional sites. The 51 male and 36 female finds from Sárrétudvari-Hizóföld (OLÁH, 1990; NEPPER, 1996), the 3 male finds and 1 female find from the 10th century part of the 10 Szabolcs-Petőfi Street cemetery (PAP, 1980-81; KOVÁCS, 1994), the 3 male finds from the Tiszavasvári-Nagy Gyepáros cemetery (SZATHMÁRY and GUBA, 1996; NÉMET, 1996), and the new finds from Karos-Eperjesvölgy (KUSTÁR, 1996; RÉVÉSZ, 1996) might significantly alter earlier knowledge on the 10th century population of the north-eastern region (cf. SZATHMÁRY, 1996).

The samples used for our analysis are summarized in Table 1.

Table 1. Material examined.

| Samples | Males | Females |
|--------------------------------|-------|---------|
| Ibrány-Esbó Halom (10th c.) | 16 | 16 |
| Ibrány-Esbó Halom (11th c.) | 23 | 22 |
| Comparative material (10th c.) | | |
| 1/ North-eastern region | 123 | 75 |
| 2/ South-eastern region | 26 | 18 |
| 3/ Northern periphery | 34 | 27 |
| 4/ Middle Danube region | 25 | 22 |
| 5/ Transdanubia | 40 | 37 |

12 dimensions were analysed on the restored skulls, with the following MARTIN nos.: 1, 5, 8, 9, 17, 20, 45, 48, 51, 52, 54, and 55 (MARTIN, 1928).

The missing values (a maximum of 8 for the individuals; a maximum of 30 per cent for the variables) were reconstructed on the basis of the whole sample by using DEAR's method (1959). Following this, the investigation was made by discriminant (dsc) analysis.

Results

The results are presented on the basis of the results of dsc analysis classification. Average similarities were estimated for two different variants of reclassification (Tables 2 and 3), i. e. the Ibrány samples were interpreted from two different aspects. One was the degree of similarity between them and regional samples, while the other was what percentage of individuals from regional samples could be classified into the Ibrány

* The dimensions of the cranial finds of the first Karos cemetery, reported by LIPTÁK (1951), with the exceptions of the MARTIN dimensions 5 and 20 were re-determined by KUSTÁR. As a result, the comparative material was increased with the data on 17 males and 14 females.

Table 2. Reclassification rates (rounded data) of the 10th century population of Ibrány-Esbó Halom on the basis of the results of dsc analysis classification (in percentage).

| Region | From the analysed sample | Into the analysed sample | Average re-classification |
|----------------------|--------------------------|--------------------------|---------------------------|
| North-eastern region | males | 6 \ } 3 | 7 |
| | females | 0 / | |
| South-eastern region | males | 13 \ } 13 | 16 |
| | females | 13 / | |
| Northern periphery | males | 19 \ } 16 | 10 |
| | females | 13 / | |
| Middle Danube region | males | 6 \ } 6 | 11 |
| | females | 6 / | |
| Transdanubia | males | 0 \ } 0 | 5 |
| | females | 0 / | |

Table 3. Reclassification rates (rounded data) of the 11th century population of Ibrány-Esbó Halom on the basis of the results of dsc analysis classification (in percentage).

| Region | From the analysed sample | Into the analysed sample | Average re-classification |
|----------------------|--------------------------|--------------------------|---------------------------|
| North-eastern region | males | 13 \ } 4 | 7 |
| | females | 0 / | |
| South-eastern region | males | 13 \ } 15 | 15 |
| | females | 18 / | |
| Northern periphery | males | 7 \ } 16 | 13 |
| | females | 14 / | |
| Middle Danube region | males | 9 \ } 11 | 16 |
| | females | 14 / | |
| Transdanubia | males | 17 \ } 5 | 8 |
| | females | 0 / | |

samples. In fact, the average values of these reclassifications formed the basis of our opinion, that the 10th century population of Ibrány-Esbó Halom had the greatest similarity towards the craniological character of the south-eastern region (Fig. 1). At the same time, the 11th century population, with an anatomical character different from

the previous one, is analogous primarily with the 10th century sample from the Middle Danube region (Fig. 2).

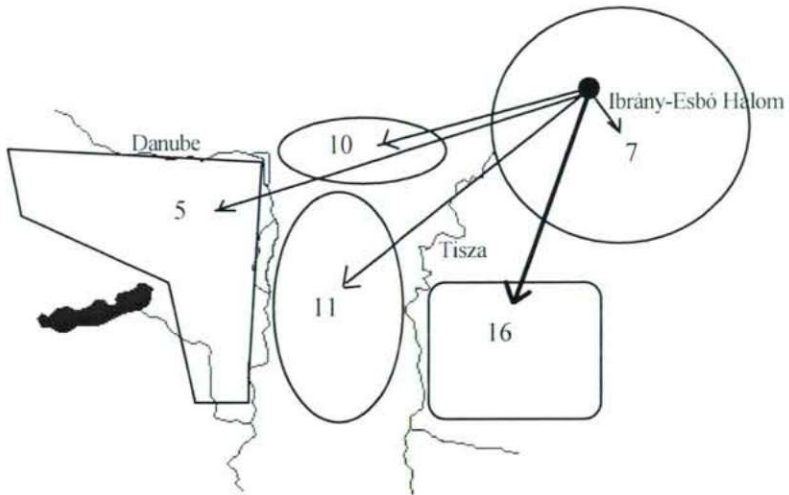


Fig.1. Average results of reclassification of the 10th century population of the Ibrány-Esbó Halom cemetery.

Conclusions

A 10th-11th century population from the Upper Tisza region, with a presumed continuous settlement history, was divided from a craniological viewpoint into two parts. The population from the Pagan period and that from the Early Christian period were considered to differ significantly. The analogies of the 10th century population can be identified primarily in the south-eastern region of the Carpathian Basin, while the 10th century (Hungarian Conquest period) parallels of the 11th century population are the most explicit in the Middle Danube region. In the 10th century, these two regional groups were those between which the closest association could be demonstrated (SZATHMÁRY, in press). It is noteworthy that the 10th century analogies of the 11th-12th century population of Hajdúdorog-Temetőhegy (North-Eastern Hungary) can be identified not so much in the north-eastern region as in the south-eastern region (SZÜCS et al., 1996). The chronologically differing analogies of the 10th and 11th century populations of the Ibrány cemetery may indicate that the genetic roots of the population change in the eastern part of the Carpathian Basin at around the turn of the first and second millennia (approximately from the beginning of the reign of

István I) can be traced back rather to the Great Hungarian Plain and its periphery areas, and that they are not connected with the population history events with quite different character in Transdanubia.

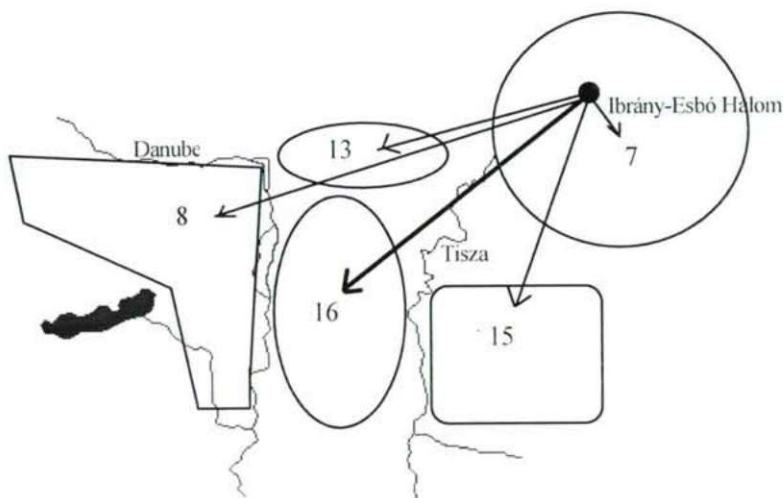


Fig. 2. Average results of reclassification of the 11th century population of the Ibrány-Esbó Halom cemetery.

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