HELJE KAARMA, JANA PETERSON,
LIIDIA SALUSTE, MAIE THETLOFF, VALVE LOOLAID

CENTRE FOR PHYSICAL ANTHROPOLOGY AT THE UNIVERSITY OF TARTU (1993–1998)

Anthropology has traditions of long standing in Estonia. The most outstanding figure among Estonian anthropologists was Prof. Juhan Aul (1897–1994), whose well-known statements about the role of anthropology among other sciences and long-range anthropological investigations of children, women and men have earned Estonian anthropology its remarkable reputation. The Anthropology Section of the Estonian Naturalists' Society, founded by Prof. J. Aul, will celebrate its 60th anniversary in April 1999.

To co-ordinate anthropological research and to organise undergraduate and graduate studies of anthropology at the faculties of medicine, biology, physical culture and psychology at the University of Tartu and in the whole Republic of Estonia, a new structural unit – the Centre for Physical Anthropology – was formed by the decree of the Rector of the University of Tartu on 18 June 1993.

At present, the Centre unites 20 scholars from a number of faculties of the University of Tartu and other research institutions. We have three doctoral students (J. Peterson, J. Kasmel, G. Veldre) and four students working on their master's degrees.

The Centre operates in close co-operation with the Institute of Mathematical Statistics of Tartu University; the consultant of the Centre is Prof. E.-M. Tiit.

In order to carry out various anthropometric measurements commissioned by the state or by the Ministry of Social Affairs and to collect and preserve these data according to an integrated scheme, the Estonian National Register of Anthropometric Data was established at the Centre in March 1995.

Although the Centre also deals with historical and ethnic anthropology (L. Heapost, R. Allmäe) and kinanthropology (T. Jürimäe), emphasis has been placed on developing physical and medical anthropology with the aim to participate actively in projects of medicine and health promotion.

As there are no established viewpoints yet concerning the typification of body builds, we have concentrated our main attention on elaborating the foundations

of typification. We have studied the internal structure of the body as a whole in nonpregnant and pregnant women, 15–18-year-old schoolgirls and 17–18-year-old schoolboys [1–9].

We have managed to prove that the structure of the body as a whole is based on height and weight, which determine 50% of the variability of single variables, indices and a great number of characteristics of body composition. In the case of pregnant women, this percentage is 45.

Consequently, it would be of primary importance for both practical and theoretical medicine and for health promotion to fix the height and weight of the subjects and to calculate their body mass index.

Then it would be easy to place the subjects in a bivariate basic classification (SD classes) according to their height and weight, or height and body mass index.

In the same classes it would be possible to study the clinical, biochemical and physiological characteristics of these patients and to assess statistically the significance of the differences.

The Centre is most interested in co-operation with the anthropologists and physicians of different countries in order to compare ethnic differences in body structure.

An important area of research is the establishment of norms for the growth curves of height and weight for Estonian children (aged 0–18). The corresponding data about 2–18-year-old boys and girls have been already processed [10].

During these five years, the Centre has organised three international conferences – in 1993, 1994 and 1997 – and published two collections of articles in English – *Papers on Anthropology VI* and *VII*.

References

1. Kaarma H. Vedeschie faktory v sisteme razmerov tela u zhenshchin // *Arkhiv anat., hist., embr.* – 1983. – 9. – 67–70.
2. Kaarma H. Klinicheskaya antropologiya v akusherskoi praktike // *Aktualnye voprosy meditsinskoi i klinicheskoi antropologii. Mater. mezhdrespubl. nauchn. simpoz. (aprel 1991 g., g. Tomsk).* – Tomsk, 1991. – 27–30.
3. Kaarma H., Saluste L., Veldre G., Thetloff M., Loolaid V., Kuivjõgi K. Systematisation of Anthropometrical Data for Comparative Statistical Estimation of Women's Individual Nutritional State // *International Journal of Anthropology.* – 1994. – 9. – 3. – 208–209.
4. Kaarma H. Complex statistical characterisation of women's body measurements // *Anthrop. Anz.* – 1995. – 53. – 3. – 239–244.
5. Kaarma H., Raud J. Application of anthropometric data in obstetrics // *Ginekologia Polska.* – 1996. – 5b 68. – 37–43.

6. Kaarma H., Tapfer H., Veldre G., Thetloff M., Saluste L., Peterson J. Some principles to be considered when using young women's anthropometric data // *Biology of Sport*. – 1996. – 13. – 2. – 127–135.
7. Kaarma H., Saluvere K., Peterson J., Veldre G., Saluste L., Koskel S. Multivariate anthropometric classification for secondary school girls // *Journal of Medica Baltica*. – 1997. – 97/1. – 33–35.
8. Kaarma H., Salundi U., Koskel S. Body builds structure of neonates // *International Journal of Anthropology*. – 1997. – 12. – 2. – 21–28.
9. Kaarma H., Saluste L., Thetloff M., Peterson J., Riive M., Salundi U., Veldre G., Raud J. Body structure of nonpregnant and pregnant women and new-borns: Study Aid. – Tartu, 1998. – 67 pp.
10. Grünberg H., Adojaan B., Thetloff M. Kasvamine ja kasvuhäired: Metoodiline juhend laste füüsilise arengu hindamiseks. – Tartu, 1998.

Helje Kaarma, *Prof., M.D.*; **Jana Peterson**, doctoral student;
Liidia Saluste, *Cand. Med.*; **Maie Thetloff**, *M.Sc. (Math.)*;
Valve Loolaid, *Cand. Med.*

Centre for Physical Anthropology, University of Tartu
 Lossi 36, Tartu EE 2400 Eesti