

## **LEIU HEAPOST – 80**

MART VIKMAA

*Tartu, Estonia*

Leiu Heapost is one of the three renowned Estonian anthropologists along with Juhan Aul (1897–1994) and Karin Mark (1922–1999). She is a very versatile researcher who has dealt with somatometry, craniology, age-related anthropology, paleoanthropology and population genetics of Estonians and several other peoples.

Leiu was born on Muhu island on 13 March 1936 as one of the many children in the family of a farmer and fisherman. Mihkli farm in Rootsivere village was wealthier than the average on Muhu island; the family was very hard-working and progressive. Leiu's parents had cultural interests and were skilful in handicraft. She speaks with excitement about the drawings in his father's diaries. Her father was also a recognised smith and cabinet-maker in the neighbourhood.

Leiu began her education at Piiri school, also on Muhu island but completed secondary school in Orissaare in Saaremaa (1956). Thereafter, she worked for a few years near her home, as head of Tamse village library. She hesitated about how to continue her education. Her father recommended medicine. Leiu, however, did not find that profession close to her heart. She was more interested in biology.

She had, however, another interest as well. Leiu's manual skills and vision would have enabled her to become an artist. This may be hereditary; two of her sisters actually decided to become artists. Estonian anthropology, however, was lucky – Leiu opted for research.

In 1958, Leiu became a student at the Department of Biology at Tartu State University. As she was delighted about the lectures of Prof. Aul, Head of the Chair of Zoology, she felt an inclination for Prof. Aul's speciality – anthropology. The study of humans seemed to be close to her heart. Professor Aul had recently started researching the anthropology of Estonian children's physical development. As early as in her second year of studies, Leiu began to accompany Prof. Aul on his research trips and conduct anthropological measuring of school students. As a student, she also joined K. Mark's expeditions to the settlement

areas of Finno-Ugric peoples and their neighbours. By doing so, Leiu became an expert in anthropological technique and methods, and collected material for her term papers and graduation thesis.

Leiu's interest in art did not completely fall into oblivion either. Along with her studies of biology, she practised at the art studio of the university and attended Prof. Voldemar Vaga's (1899–1999) art history lectures. She remembers his lectures and the accompanying demonstrations with great enthusiasm even now.

Leiu graduated from the university in 1963. Her graduation thesis concerned the anthropology of school students' physical development. Thus, a new capable personality had appeared among the few Estonian anthropologists. Unfortunately, the authorities of Soviet Estonia did not consider anthropology an essential branch of science (this is true even today). There were no openings for anthropologists at the university or the institutes of the Academy of Sciences.

Professor Aul, however, did not want to lose a trained anthropologist. He wanted to use Leiu as a helper in his research and persuaded her to take up the position of senior laboratory assistant for which there was a vacancy. Leiu filled this post until 1970. In addition to participating in J. Aul's expeditions, her duties included statistical analysis of the collected data. As she had artistic skills, she was used as the illustrator of textbooks written by the staff of the department (although her name was not even mentioned there).

Along with her work at the university, Leiu found time and opportunities for studying the school students of Tallinn.

Unexpectedly, in 1970, the History Institute at the Estonian Academy of Sciences admitted a postgraduate student in anthropology. Leiu stood as a candidate and got a student place. She continued her studies of age-related anthropology of Tallinn school students, which she had started while living in Tartu, and in 1976, she defended her Candidate's dissertation *Physical development of Tallinn schoolchildren*. (Later, in 1984, the materials of the dissertation were published in print as a monograph). From 1974, Leiu was already a staff member of the Institute of History. She worked there until the end of 2013, filling positions from junior researcher to lead researcher. Leiu has been an active member in a great number of research societies (Estonian Naturalists' Society, Society of Geneticists and Selectionists of the Soviet Union, Estonian Society of Human Genetics, European Anthropological Association). She is a member of the international editorial board of the journal *Papers on Anthropology*.

Leiu has been perhaps the most inquiring and versatile among the Estonian anthropologists. She is the founder of systematic population genetic research

of Estonians and one of the first Estonian paleoanthropologists in the field of craniology and osteology as a whole. As early as in 1966, in addition to somatometric studies of Tallinn school students, she began collecting genetic data and determined antigens in several blood group systems and the frequency of some physiological characteristics (taste sensitivity to phenylthiocarbamide (PTC) and red-green colour blindness). In the 1970s–1980s, she broadened these studies to many samples (40 in total) in the whole of Estonia. For this purpose, she started close cooperation with the geneticists of the Institute of General and Molecular Biology at the University of Tartu in order to use their laboratory equipment and analysis potential.

In addition to studying Estonians, Leiu has cooperated with K. Mark and several Soviet and Finnish anthropologists at expeditions to the Volga area, the Vologda region, Western Siberia and Transcarpathia. She has also collected comparative population genetic data from our neighbouring peoples – Vepsians and Latvians.

Leiu has presented her research results at a great number of international conferences; in addition to the Soviet Union and Estonia, her research papers have been published in several countries (Finland, Sweden, Poland, Germany, Hungary, Belgium). The list of her publication includes considerably more than 100 items. In addition to the abovementioned monograph, her greatest publication is the chapter on population genetics in the book on Estonians' ethnogenesis (1994), written in cooperation with K. Mark and G. Sarap. For several last years, she was busy with supplementing and editing of the bulky monograph *Physical Anthropology of Finno-Ugric Peoples*, based on the manuscript of her deceased colleague Karin Mark. The book appeared in print at the end of 2014. Some of its materials, she had published as separate articles.

From the anthropological viewpoint, Estonians are one of the most diversely and thoroughly studied peoples in the world, and Leiu's studies definitely have made a remarkable contribution to this.

Leiu's population genetic analysis has confirmed and broadened the conclusions of physical anthropologists about the relatively great biological variability of Estonians. She has found that the main axis of this variability runs from the east to the west, not from the north to the south, as might be concluded from linguistic differences. According to the greatest differences, distinction could be made between the four main groups of Estonians: Inhabitants of the western islands, the West Estonian mainland, Northeast Estonia and Southeast Estonia. Other regions are transitional zones between them. She has noted that, in its genetic structure, the area of the Setu dialect is very similar to other Southeast

Estonian samples. On the contrary, some samples from the western part of Võru County are clearly different from their neighbours and the people of Muhu island differ significantly from those of Saaremaa (being closer to Northeast Estonians).

Leiu's research results have made her to take a critical attitude to K. Mark's Mongoloidness index as a Mongoloid addition to the genetic structure of Finno-Ugric peoples. Rather should these "additions" be considered traces of the peculiarities of the original Finno-Ugric population where the so-called Mongoloid and Europoid features may have appeared in an original combination. These questions need further research and theoretical analysis, which might be based on molecular genetic anthropology. The researcher whose studies have posed such problems has definitely been successful in her work.

In February 2016, President of the Republic of Estonia decorated Leiu Heapost with the Order of the White Star of the 5th Class.

### **A selection of Leiu Heapost's publications:**

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**Address for correspondence:**

Mart Viikmaa

E-mail: mart.viikmaa@gmail.com