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The present 7th volume of the *Monographs of the Archaeological Society of Finland* builds on presentations given at the XI Nordic Conference on the Application of Scientific Methods in Archaeology that took place in Helsinki, Finland, October 20th–23rd 2015. The meeting was arranged as a twin conference with the X Nordic Meeting on Stratigraphy, organized by the Archaeological Society of Finland, the Finnish Antiquarian Society, the Finnish Museum of Natural History (LUOMUS), the Finnish Heritage Agency (the former National Board of Antiquities), the Society for Medieval Archaeology in Finland, and the University of Helsinki Department of Archaeology.

The joint themes of the twin conference included the Baltic Sea, Demography, diet and health, Geophysical prospection, and Current challenges for scientific dating methods. For SMIA XI papers concerning material studies – elemental analyses, dating methods, stable isotopes, geophysical prospection, osteology and paleopathology, ancient DNA, biological indicators, paleoclimate, paleodemography, and new methods and techniques, were also invited.

The papers in this volume are the harvest of the SMIA XI conference and cover a variety of the conference themes. It is not unwarranted to say that the present volume gives a representative cross-section of the methodological and topical issues at the center of scientific archaeology, not only in 2015, but also today. However, archaeology would not be archaeology without a look at the past. In this case, and in line with the multidisciplinary nature of SMIA, this look is not provided by an archaeologist, but instead by professor Högne Jungner, one of the founders and driving forces of the whole SMIA concept and the long time head of the University of Helsinki Radiocarbon Dating Laboratory (today the Laboratory of Chronology). Högne’s retrospective look at the early years of SMIA forms the second part of the introductory section.

The rest of the volume is dedicated to peer-reviewed papers, the topics of which include a method of combining aDNA, stone tools, and computer modeling (Persson et al.), various analyses of pottery (Papakosta & Pesonen, Brorsson et al.), the analysis of chemical composition of soils (Kulkova et al.), identification and interpretation of osteological materials (Shaymuratova et al., Harlin et al.), geoarchaeology of building stones (Kinnunen & Seppänen), and microscopical analysis of perishable organic materials (Kirkinen et al.). Geographically the papers in this volume cover northeastern Europe; the focus in all papers is on material deriving from Fennoscandia, the Baltic countries or northwestern Russia. Chronologically they span from the earliest postglacial pioneer settlement ca. 11,000 years ago to premodern times.

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