

THE PLEISTOCENE–HOLOCENE TRANSITION (20–8 ka BP) IN THE AREA OF POLAND

In 1990–1994 the UNESCO International Geological Correlation Project 253 – Termination of the Pleistocene – was newly launched. Its aim was to study changes across a glacial–interglacial transition (18–8 ka BP) evidenced by geological records. The project was led by Jan Lundqvist, Department of Quaternary Research, University of Stockholm, and the project secretary was Matti Saarnisto, Geological Survey of Finland.

This project contained 9 working groups: (1) Problematic Ice Sheet, (2) Glacial Modelling, (3) Fluctuations of local glaciers, (4) North Atlantic Seaboard Programme, (5) Depositional changes in non-glaciated regions, (6) History and drainage of large ice-dammed lakes, (7) Global Younger Dryas, (8) Changes in permafrost conditions, (9) Environmental changes,

and 6 regional groups: (1) Peribaltic group, (2) Nordic group, (3) European Atlantic Seaboard group, (4) East Balkan group, (5) Alpine deglaciation and climatic changes, (6) Commission on the Quaternary of South America.

In Poland a team was established which worked within subproject Depositional changes in non-glaciated regions, affiliated to the Committee of the Quaternary Research of the Polish Academy of Sciences. The aim of that subproject was the reconstruction of changes in natural environments during the transition period Pleistocene–Holocene in periglacial areas (on the basis of sediment and landform analyses). JAROSLAV TYRÁČEK, Geological Survey, Prague, was the leader of that subproject, while BARBARA MANIKOWSKA, Department of Soil Science and Palaeopedology of Łódź University, was the coordinator of Polish Working Group. Many specialists from various disciplines participated in the team, namely: geomorphologists, paleobotanists, paleozoologists and archeologists from scientific centres in Warsaw, Cracow, Poznań, Łódź, Gdańsk, Sosnowiec and Wrocław. The task of the Polish Group was to prepare data from Poland for a synthetic formulation of the discussed problem for East-Central Europe. The Polish Group organized three working meetings, and in 1992 a conference was held in which 45 participants took part. At the conference the papers and selected sites in the Central Poland were presented.

In 1994 a short final report was prepared by Polish Working Group. Data from this report were then used by dr. TYRAČEK in his subproject report during reporting session IGCP 253 in Laami, Finland. The materials collected by the members of Polish team were prepared as articles to be published in this volume of the *Biuletyn Peryglacjalny*. The articles present synthetic knowledge on particular elements of paleoenvironment in the period 20–8 ka in Poland. Unfortunately some subjects were not prepared in time and do not appear in this volume.

The work undertook within IGCP 253 Project became an occasion to ask for a grant from the National Committee for Scientific Research in Warsaw. The subject "Evolution of natural environment in Poland during the transition from the Pleistocene to the Holocene (20–8 ka BP)" was additionally supported from July, 1994 to December, 1995. Within the grant there were provided funds for publishing the results in this volume of the *Biuletyn Peryglacjalny*.

The discussions in Polish team showed that there is no uniform approach to the problems of stratigraphy and paleogeography of the transitional period from the Pleistocene to the Holocene. Particular specialists advance different subdivisions, putting the limits of chrono-stratigraphic units in different places and apply different terminology. There is also different comprehension of the range of break moments in the evolution of the environment. In this evolution two distinct break moments can be distinguished. The first, about 13.0–12.5 ka BP, was connected with encroachment of a dense vegetation cover and first forest communities, long accepted by paleobotanists as the beginning of the Late Vistulian and evidenced by transformation of river channels. The second break occurred about 14.5–14.0 ka BP, when distinct degradation of the permafrost came, accumulation of loess came to an end, formation of dunes and sand covers started, and first organic horizons appeared. In spite of great similarities in the evolution of the nature in Poland and in NW Europe and Scandinavia there are some individual features because of which west European outlines cannot be fully applied to Poland. All these problems are the subject of further discussions and in the future a synthetic critical analysis will be undertaken, and the controversial subjects will be subjected to extensive study.

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