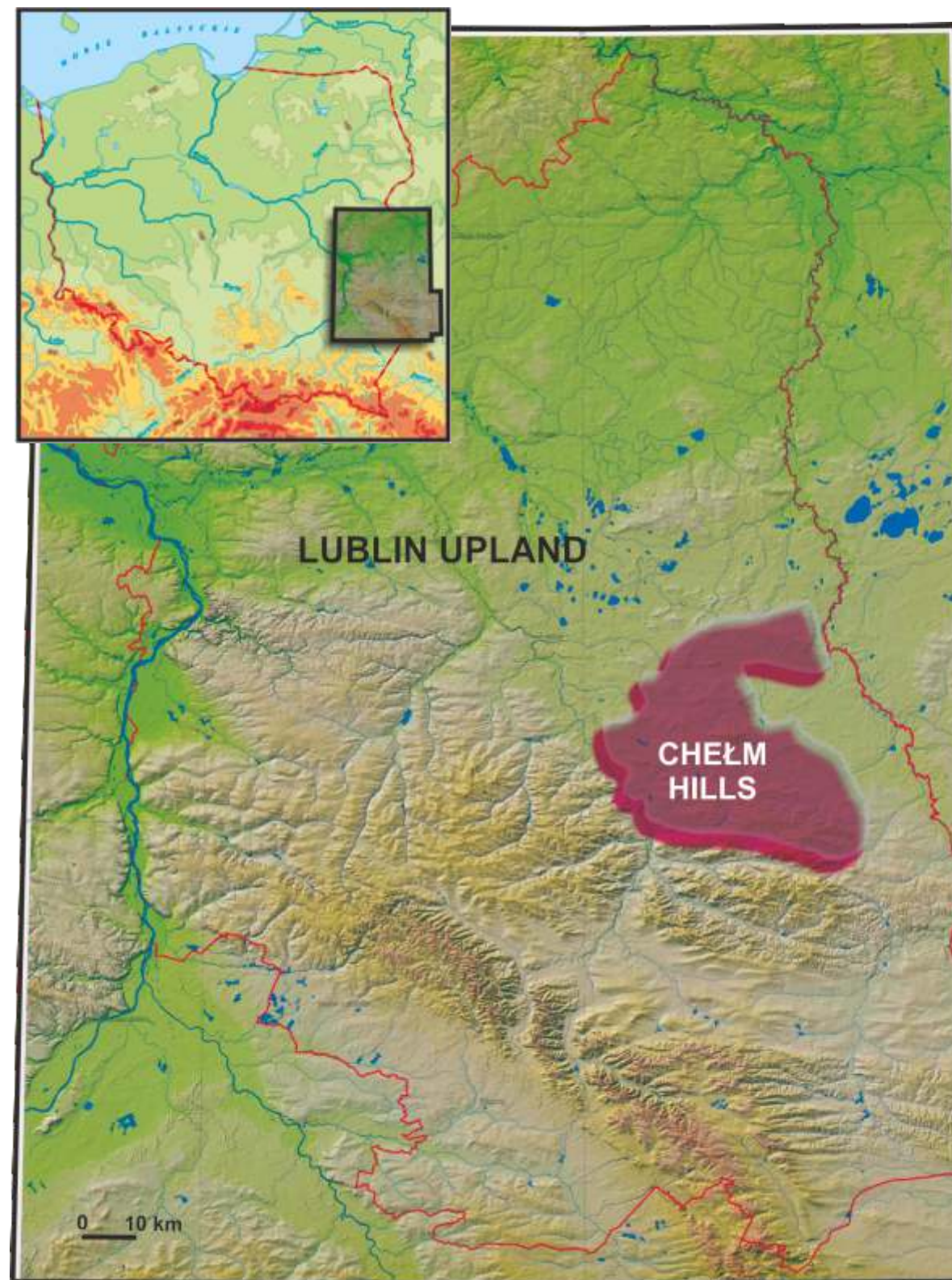


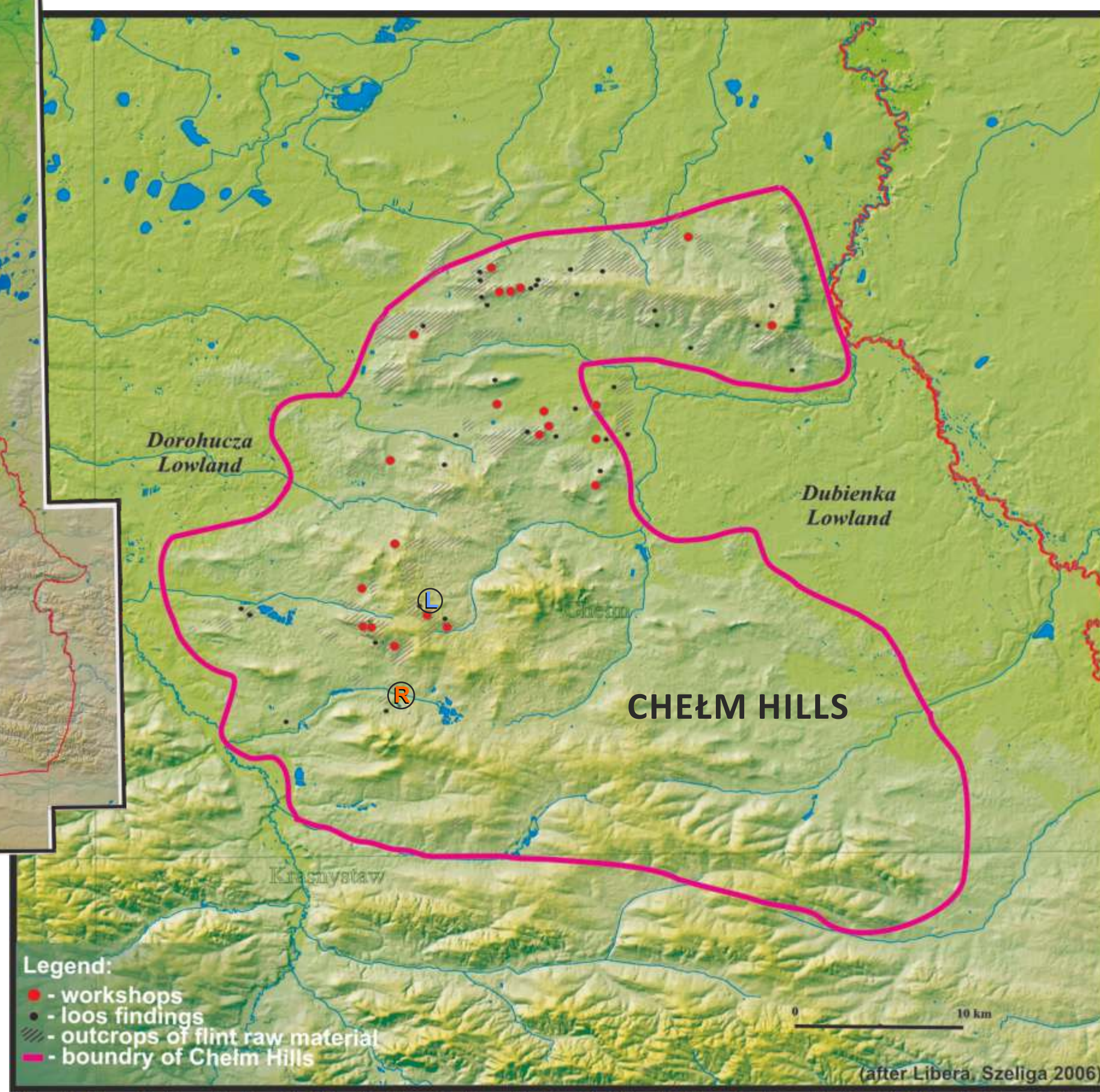
Flints in the glaciogenic deposits of Chełm Hills (Eastern Poland) - Prehistory and Geology -



*Department of Stone Ages, Maria Curie-Skłodowska University, Lublin, Poland
**Department of Geocology and Paleogeography, Maria Curie-Skłodowska University, Lublin, Poland



LOCALIZATION OF THE CHEŁM HILLS



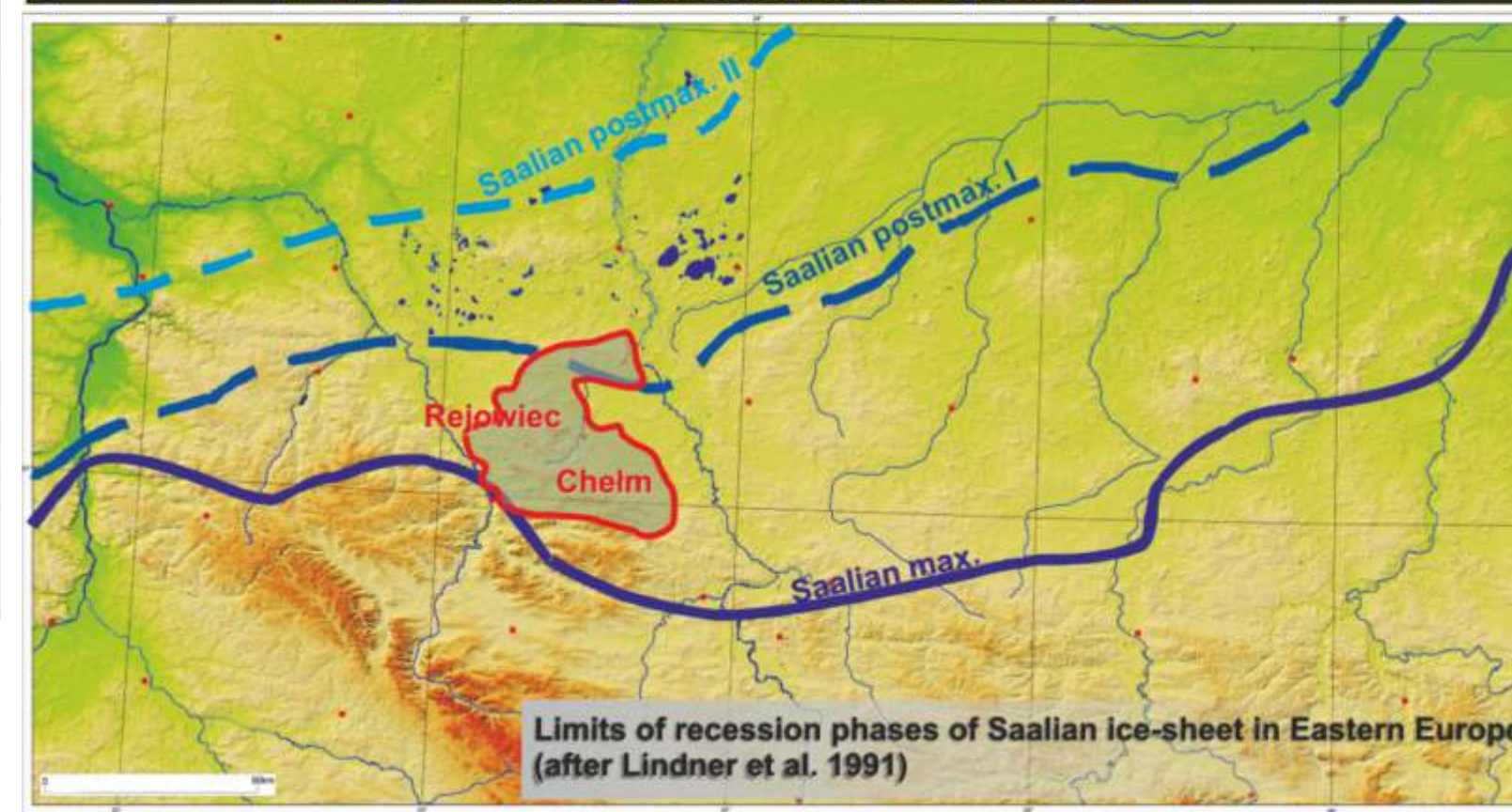
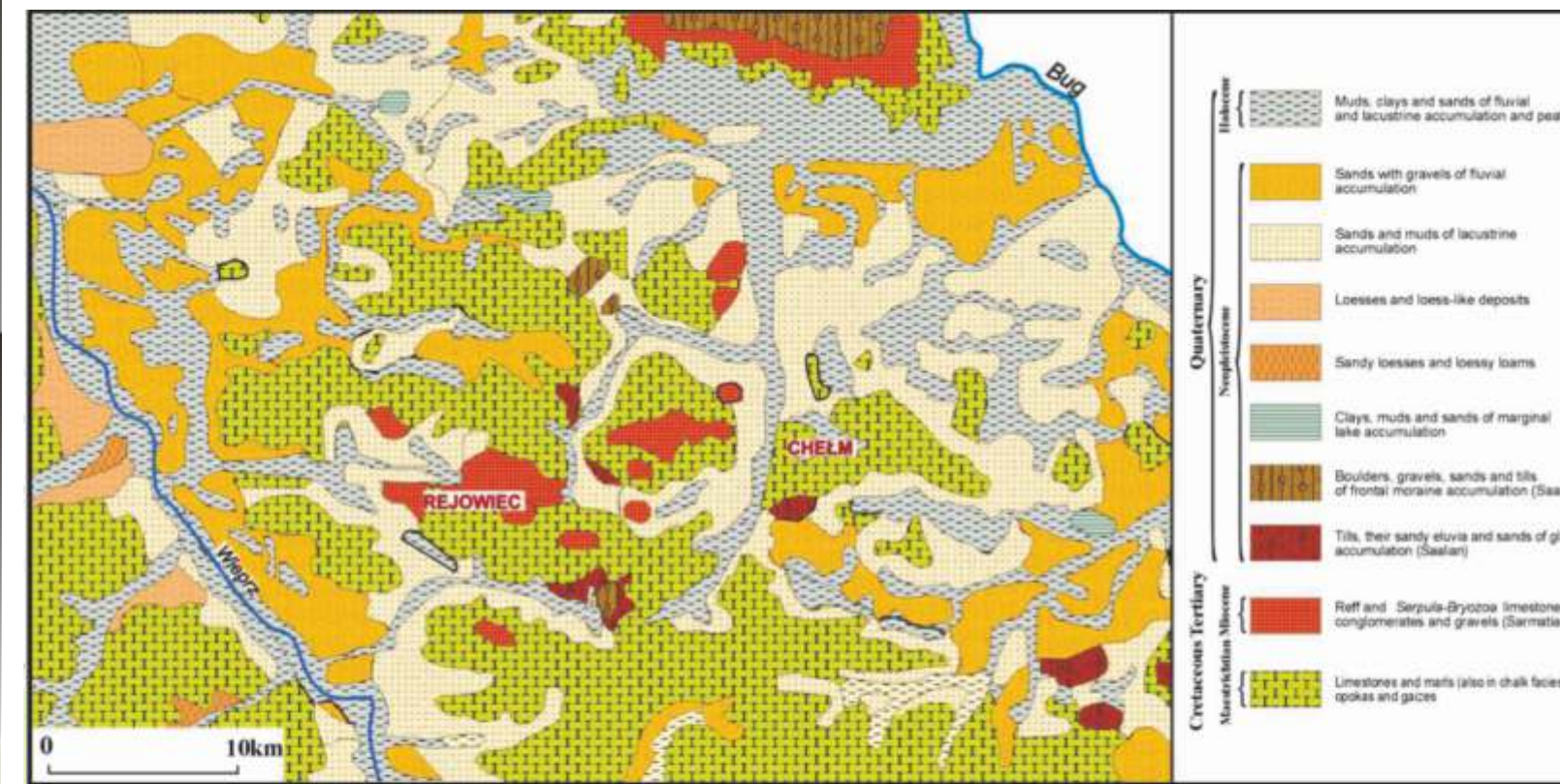
A RESEARCH PROJECT

A research project in the Institute of Archaeology (UMCS):
Studies of incidence of flint rock and its mining, processing and distribution in the Lublin region (since 2002).

- workshops
- loess findings
- outcrops of flint raw material
- boundary of Chełm Hills

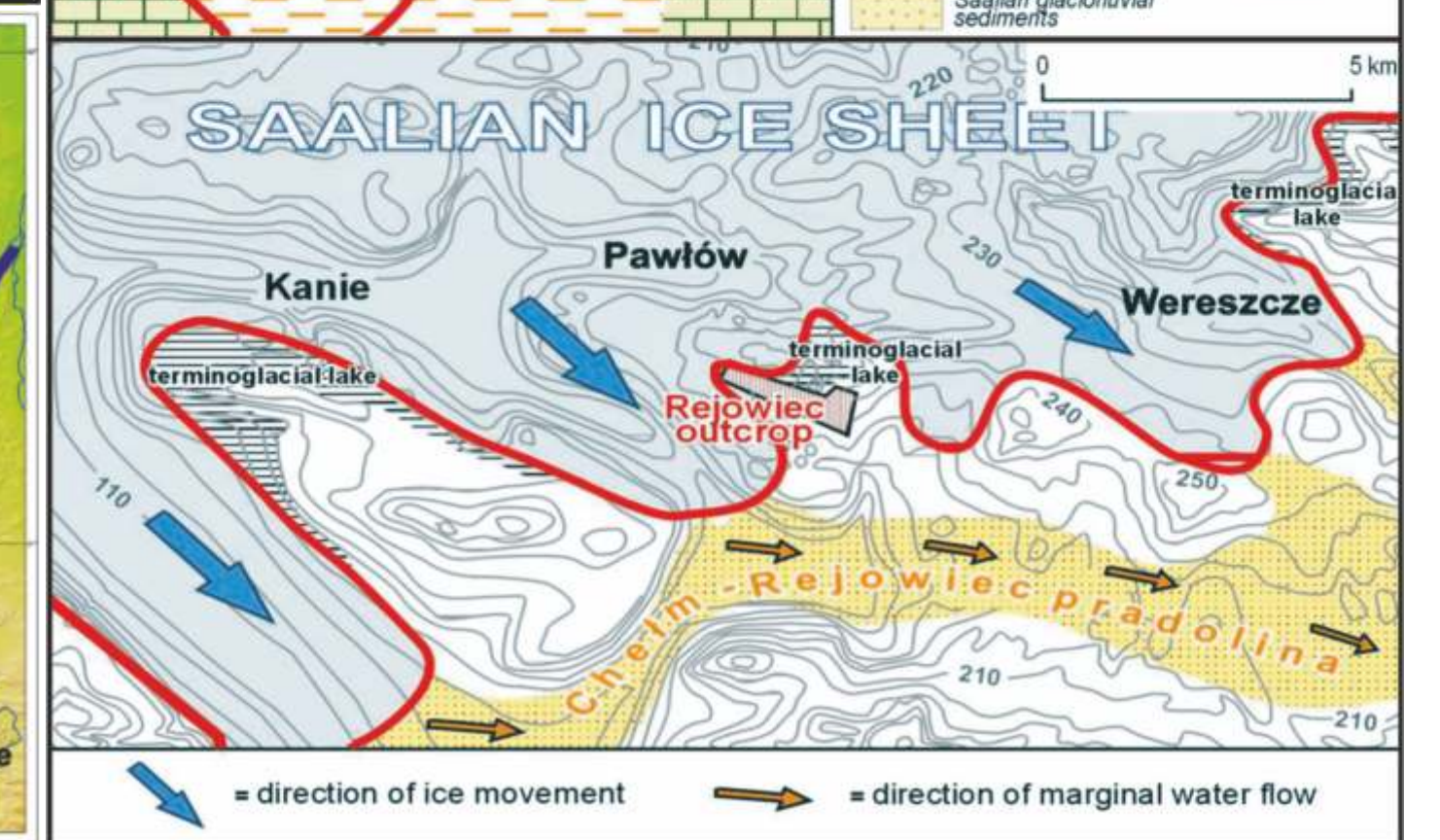
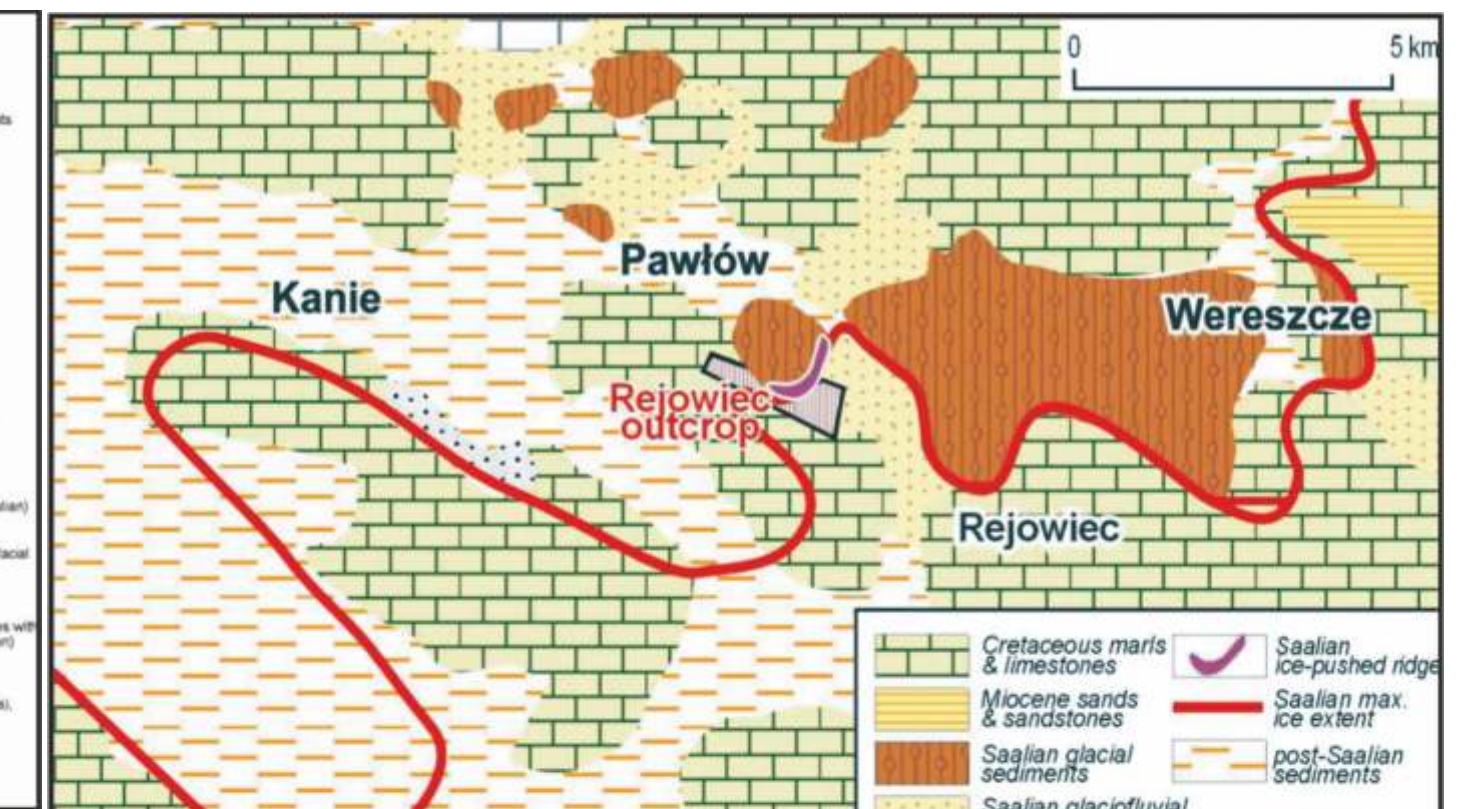
LITHOLOGY

- Carbonate rocks: Upper Cretaceous opokas, marls, chalks, marly limestones
- Cover deposits: Neogene sands, sandstones and Muschelkalks; Mesopleistocene glaciogenic deposits (Saalian glaciation); Holocene organic and mineral-organic deposits



THE OCCURRENCE OF THE „REJOWIEC” FLINTS

- In the Chełm Hills flints occur relatively rare in situ in the Maastriichtian rocks
- Flints commonly occur in Saalian glaciogenic deposits
- They appear both, in moraine (= push-moraine), and fluvioglacial deposits
- Petrographic and lithofacial evidence suggests:
 - their relationship with the lower units of the Upper Cretaceous (Turonian, Coniacian, Santonian, Campanian)
 - their relatively short glacial redeposition



REJOWIEC SURROUNDINGS

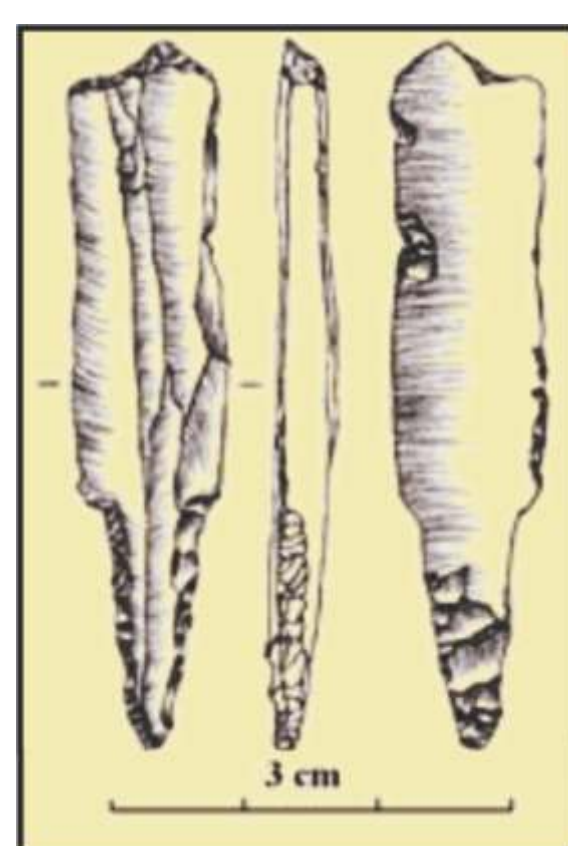
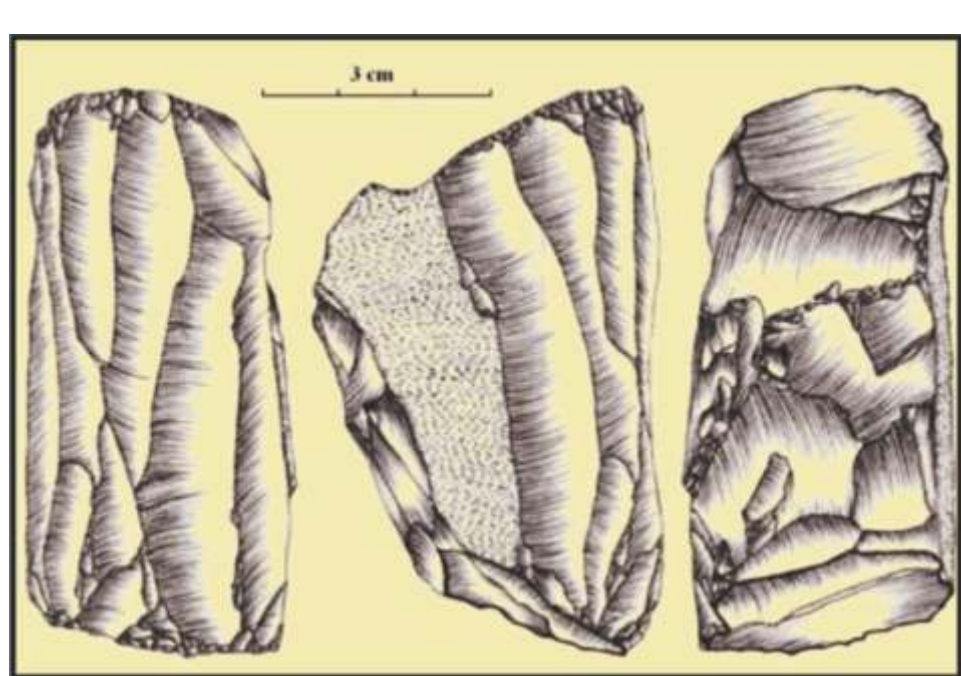


LECHÓWKA NEAR CHEŁM - SAND QUARRY -



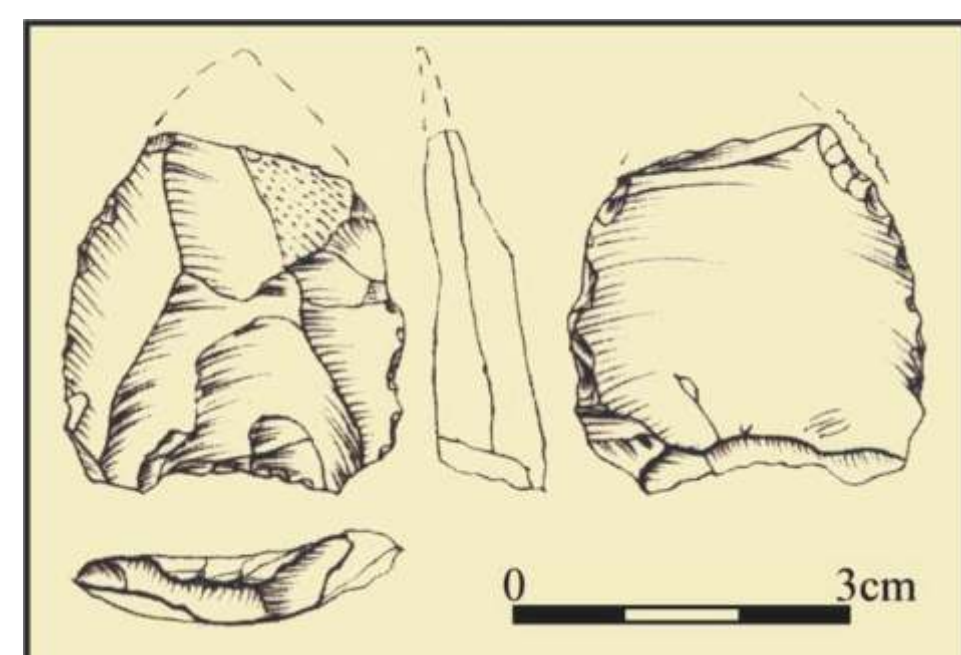
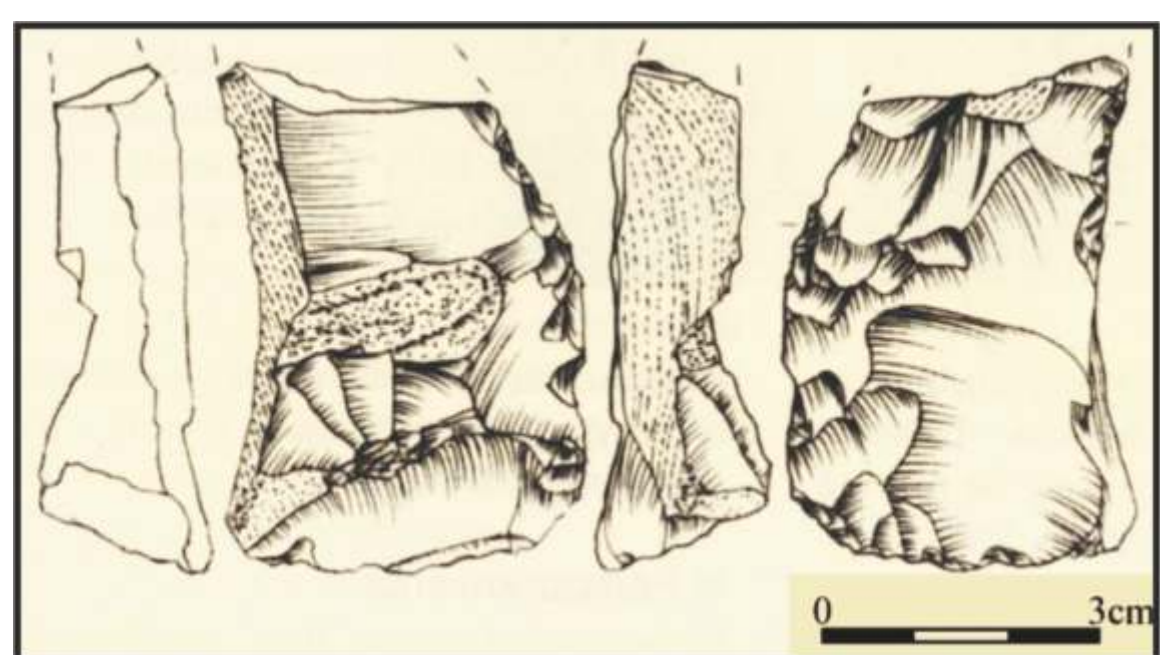
ARCHAEOLOGICAL STUDIES

- the discovery of the flint deposits by Stefan Krukowski in 1927; among the artefacts discovered at the time, two bifacial knife-like forms from the "Ostra Górka" site in Zalesie – as the only items from the Lublin area – were mentioned in the first synthesis of the Paleolithic at the territory of Poland (1939-1948)
- a verification through fieldwalking survey in the vicinity of Rejowiec by a team of researchers from the Polish Academy of Sciences (Waldemar Chmielewski, Halina Mackiewicz i Jadwiga Mościbrodzka) in 1964.
- second verification through fieldwalking survey in the area of Rejowiec in 1978 by a student of UMCS Łukasz Rejnowicz – the author of the first characteristic of the Rejowiec flint.
- the Polish Archaeological Record (Archeologiczne Zdjęcie Polski) conducted by archaeologists from Lublin since 2002.



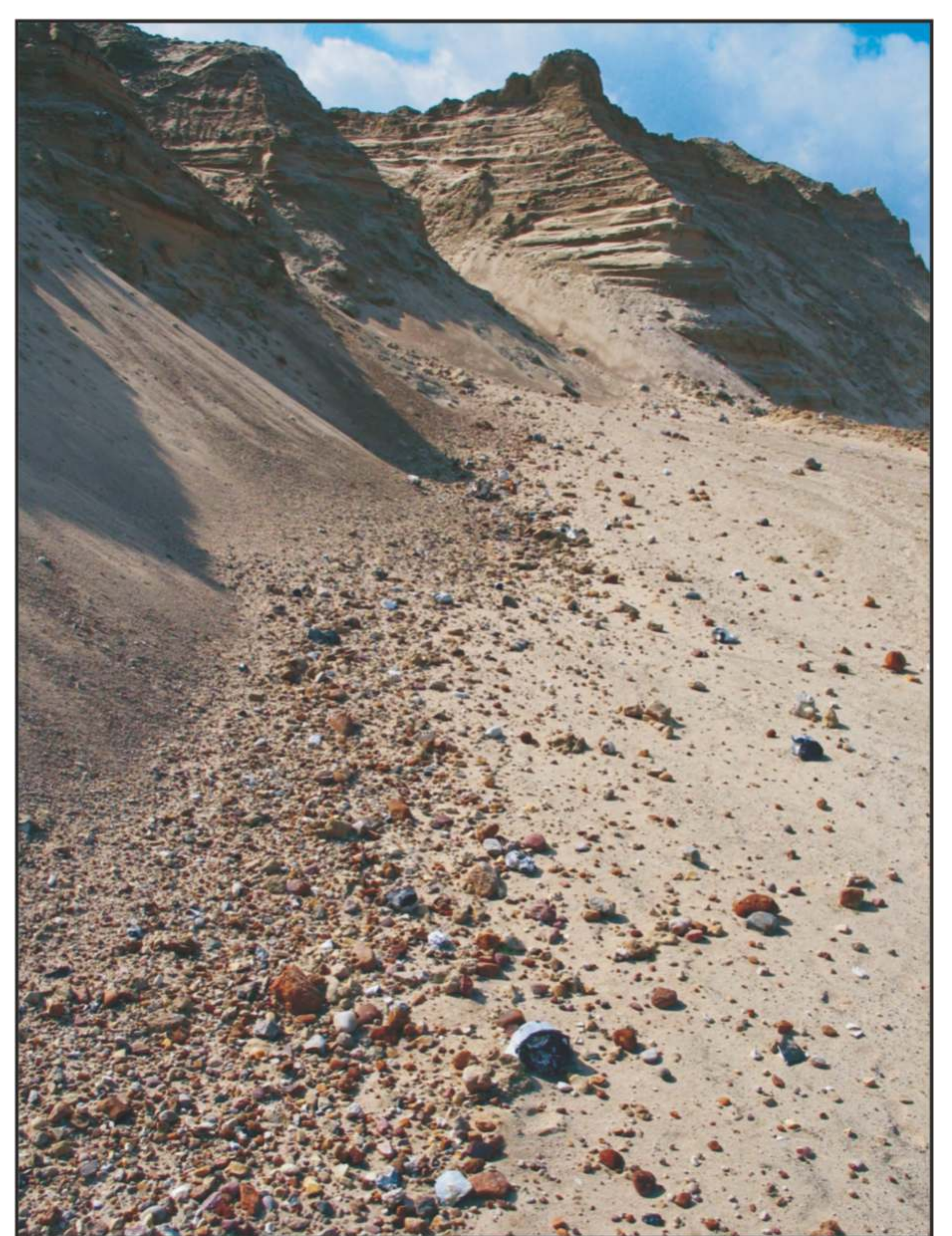
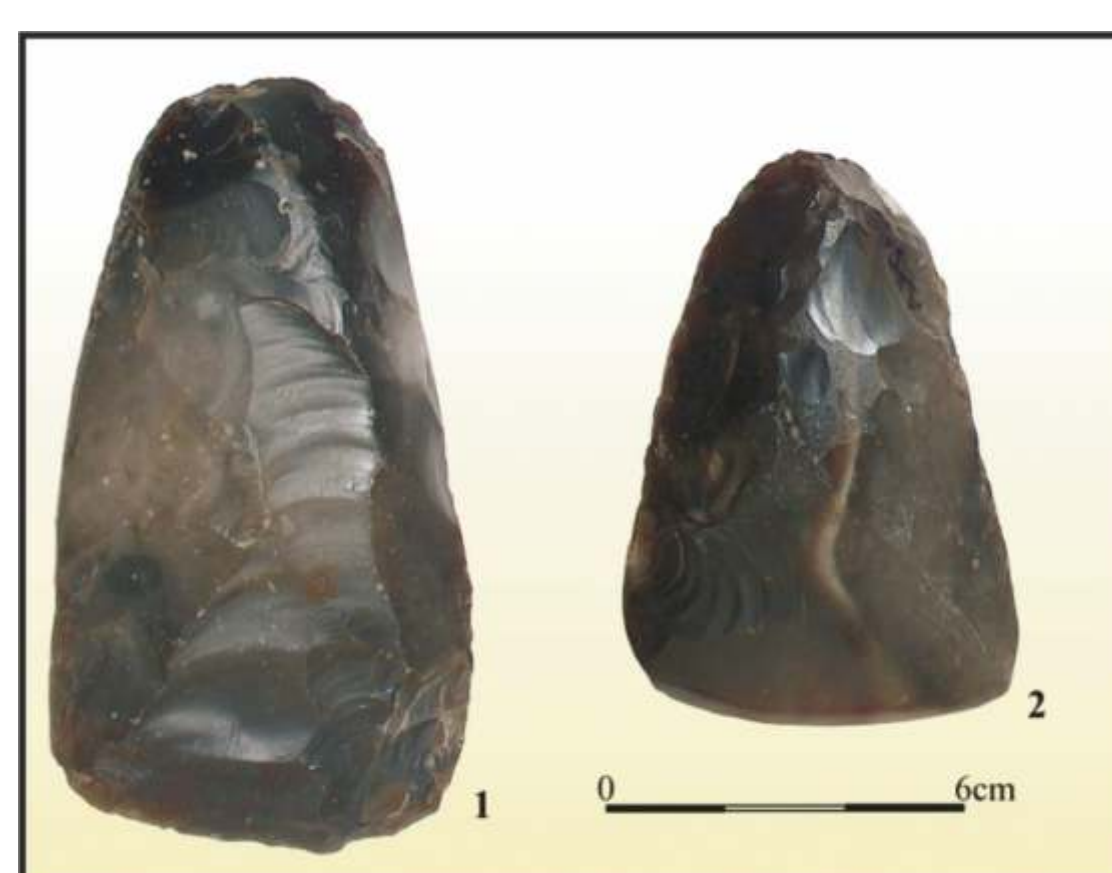
BASIC QUESTIONS

- what is the exact range of the deposits of the so called 'Rejowiec' flint?
- what macroscopic features allow for a differentiation of other similar materials, including, for example, the 'Volhynian' type?
- in which prehistoric periods this raw material was commonly used?
- what is the character of the sites occurring within the range of the deposits?
- were any workshops preserved which were on the site of a mine or next to a mine?
- do the so called production settlements exist in the direct vicinity of the mines?



RESULTS SO FAR

- so far an area of 600 square kilometres at Pagóry Chełmskie has been studied through archaeological field survey
- in total, 2198 sites connected with the Rejowiec flint were discovered as well as 120 concentrations of different degree of density.
- the oldest settlements are dated to the middle Palaeolithic.
- the most intensive settlement begins in particular in the periods of the late Palaeolithic and the Bronze Age.



REFERENCES

Krukowski S., 1939-1948: Paleolit [in]: Prehistoria ziem polskich, Kraków, Encyklopedia Polska PAU 4.
Libera J., 2003a: Pośród pagórów Polesia Lubelskiego. [in: Archeologia Lubelszczyzny]. Z Otcłani Wieków 58: 4, 19-24.
Libera J., 2003b: Wykorzystanie krzemienia świecicowskiego i gościeradowskiego w paleolitycznym i mezolitycznym w międzyrzeczu Wisły i Bugu oraz w dorzeczu Sanu [zarys problematyki]. In: Krzemień świecicowski w pradziejach. (Conference materials from Rynia, 22-24.05.2000), eds. B. Matraszek, S. Salaciński. Warszawa, 29-49. Studia nad Gospodarką Surowcami Krzemieniowymi w Pradziejach 4.
Libera J., 2006a: Kraina krzemieniem usiana. In: Badania archeologiczne na Polesiu Lubelskim, ed. E. Banasiewicz-Szykula. Lublin, 49-60. Skarby z Przeszłości [8].
Libera J., 2006b: Pierwsze górnopaleolityczne ostrze liściowate z Lubelszczyzny. W: In memoriam Waldemara Chmielewskiego – Księga poświęcona pamięci Profesora Waldemara Chmielewskiego, eds. K. Szymczak, M. Przejdziecki. Warszawa, 161-164. Światowit. Supplement Series P. 9.
Libera J., 2008: First finds of Szeletian points from the Lublin region. In: Man – Millennia – Environment. Studies in honour of Romuald Schild, eds. Z. Sulgostowska, A. J. Tomaszewski. Warszawa, 193-196.
Libera J., Szeliga M., 2006: Late Palaeolithic workshops in Lublin region, based on the local cretaceous flint resources, through the prism of new discoveries. An overview of the issue. Archaeologia Baltica 7, 160-177.
Rejnowicz Ł., 1985: Wytwórczość krzemieniarska oparta na surowcu rejowieckim w Dorohuczy woj. lubelskie. In: Lubelskie materiały archeologiczne, ed. J. Gurba. Lublin, s. 9-19. [Lubelskie Materiały Archeologiczne 1].
Lindner L., Maruszczak H., Palienko V.P. & Wojtanowicz J., 1991: Extents and chronology of stadial advances of the Saalian I Ice Sheet between the Odra and Dnieper Rivers. Ann. UMCS. Sec. B, 46: 139-153.