Utwory glacjalne i fluwioglacjalne na południe od Lwowa.

Glacial and fluvioglacial formations in the southern Lwów District.

The adjoined sketch illustrates the state of our knowledge of the glacial and fluvioglacial formations in the vinicity of Lwów. We distinguish three classes of northern blocks, according to size, and, separately, sands containing northern material.

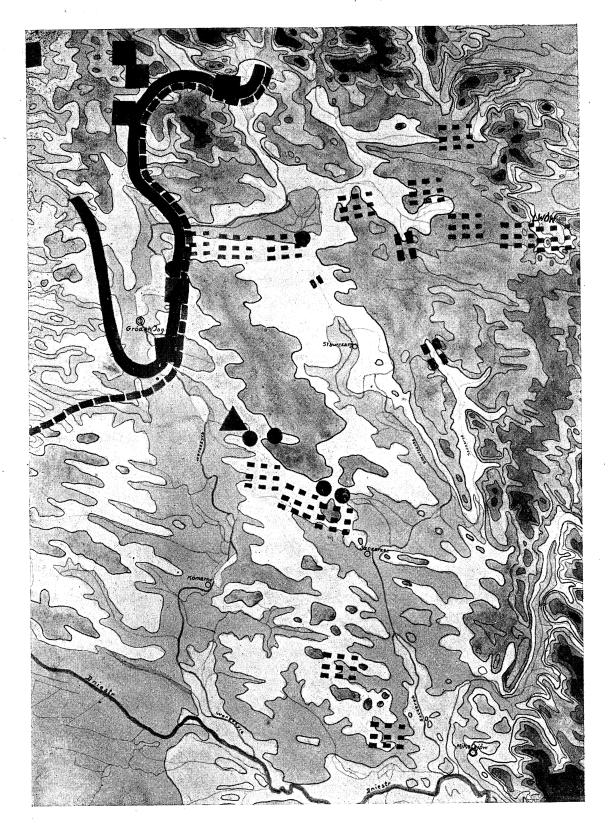
By working on a hypsometrical basis we are able to ascertain the altitudinal conditions of these formations. The line showing the limits of the maximum glaciation of Poland, according to the geological map of the Polish geological Survey 1), is reproduced here for the guidance of the reader.

The facts illustrated on the adjoined map were partly known before though the most of them are new and throw a certain light on the spilling over of the fluvio-glacial waters in the Lwów district.

The most important of the facts are these:

- 1) In the valleys of the Szczerek, Sławczanka and Wereszyca as well as in the watersheds dividing these valleys, northern material has been found both in the form of boulders and gravels and in that of fluvioglacial sands. Especially this fluvioglacial sand has been noted in the upper Szczerek valley in the form of stratum sands with fossilized diluvial snails. This formation is covered with loess.
- 2) In Lwów, on the watershed itself, as also on both of its slopes (the Biłohorski stream, an affluent of the Dniestr, and upper Pełtew) the rock-forming minerals of granite, and even

¹) Serv. Géol. de Pol.: Carte géol. de la Rép. Polon. 1:750.000. Warsaw 1926.



Area of granite boulders above 1/8 cubic metre in size.

Southern limit of the glaciation according to the map cited under 1).

- Granite boulders above 1/8 cubic metre in size.
- ▲ Granite stones measuring several cubic decimetres.
- Granite gravels under 1 cubic decimetre in size.
- Fluvio-glacial sands with the northern material.

Scale 1:300.000. Contour intervall 20 metres.

small grains of granite unknown in the local cliffs, have been found in the sands 2).

The above facts supply us with the following details concerning the hydrographic and morphological conditions of this area during the maximum glaciation:

1) Fluvioglacial waters flowed in the Lwów district, also both along the Western and the North-eastern margin of Podolia.

2) The valleys of the left affluent of the Dniestr, West of the Lwów meridian were filled up with fluvioglacial material. The question arises: Is there any connection between this filding up of the valleys and the palaeodiluvial upheaval of Podolia? 3)

3) This filling up of the valleys caused the fluvio-glacial waters to flow trough the Lwów depression of the watershed to-

wards the Vistula basin.

²) The definition of this fact has been kindly supplied by Dr. Marjan Kamieński.

³⁾ E. Romer: Some Contributions to the History of the Dniestr Valley. Kosmos XXXI. Lwów 1906.