100 YEARS OF GEOLOGICAL CARTOGRAPHY AT THE POLISH GEOLOGICAL INSTITUTE

Stanisław Wołkowicz & Krystyna Wołkowicz

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Evolution of geological maps of Poland in the 19th century

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Krystyna Wołkowicz

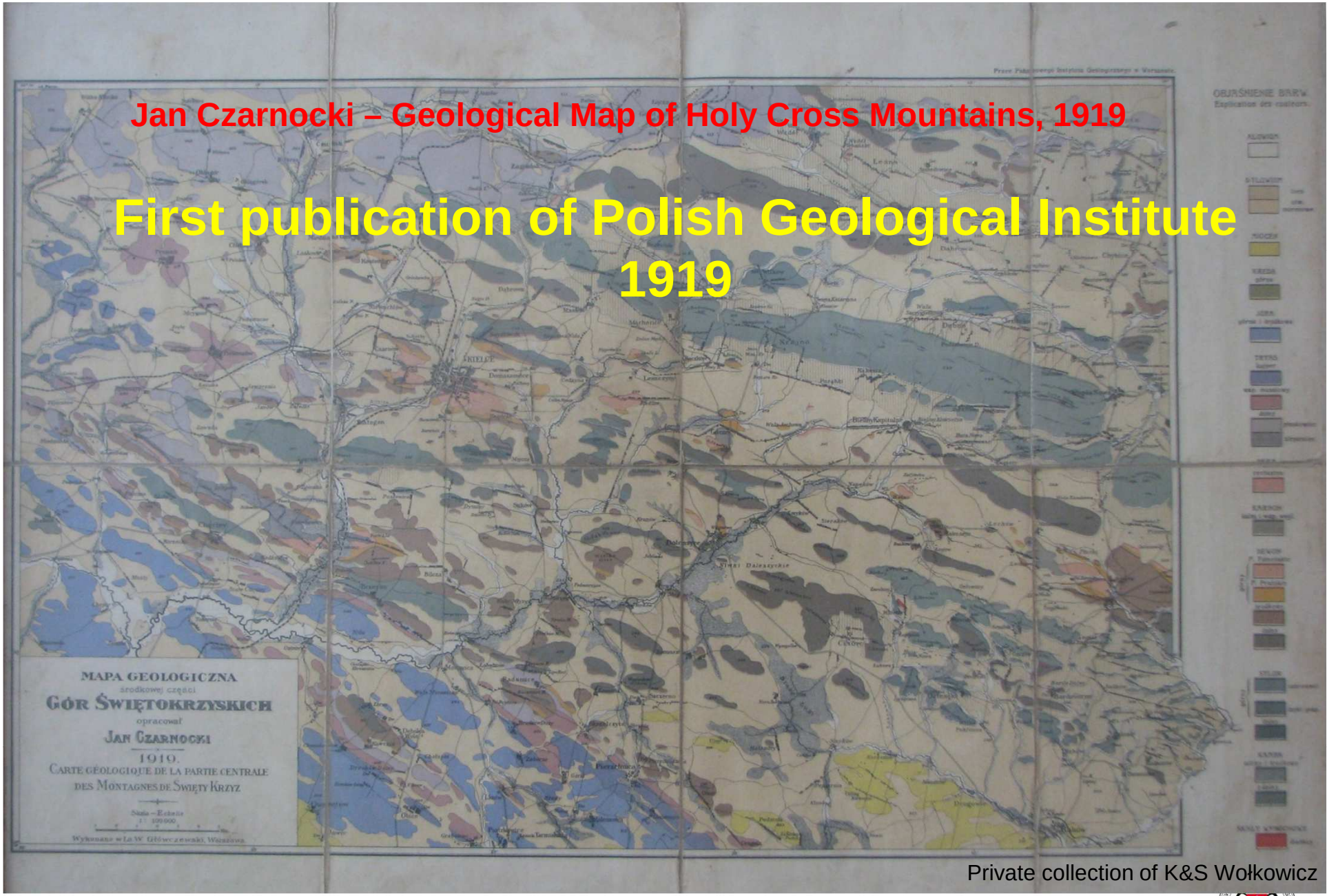
Marek Graniczny

Halina Urban

13-18 September, YEREVAN, ARMENIA.

Jan Czarnocki – Geological Map of Holy Cross Mountains, 1919

First publication of Polish Geological Institute 1919



Private collection of K&S Wołkowicz

Interwar period: 1919 - 1939

The Polish Geological Institute was founded in 1919, only a few months after the country became independent. The first statute of the institute clearly specified the tasks of the PGI as a state survey and indicated as its most important duties:

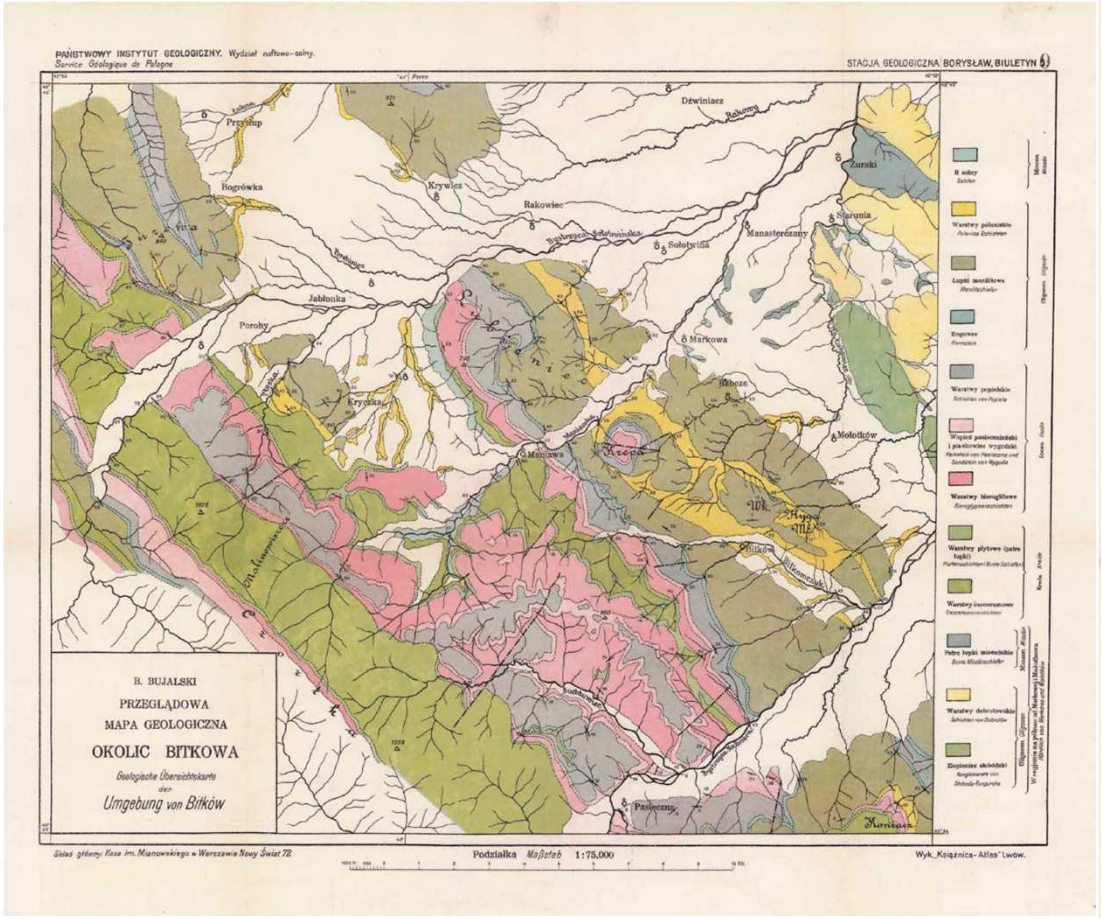
- preparation, compilation and publication of geological maps;

- exploration of deposits of mineral resources necessary for the economic development of the country.

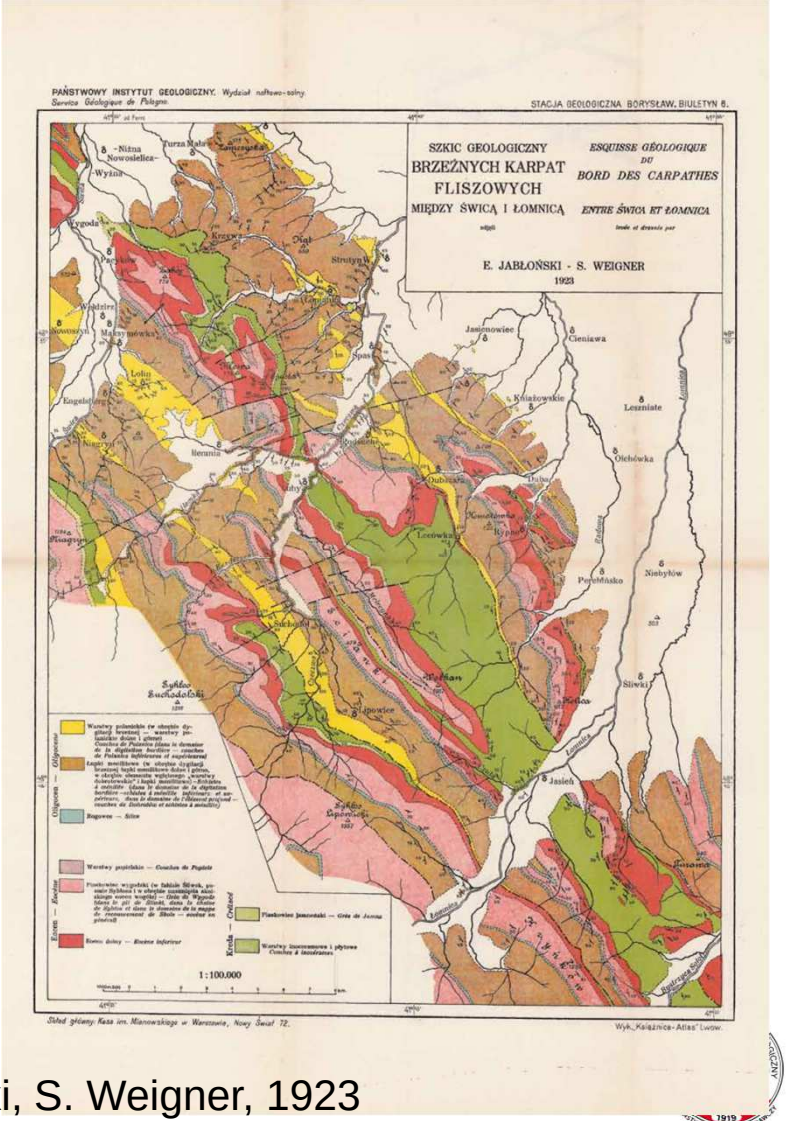
The development of geological maps was very difficult, because the areas managed by 3 different partitioners were merged, in which the following methods were used:

- different map scales: e.g. 1:75,000, 1:100,000; 1:126 00 in Russian versts;
- various reference meridians were also used: Ferro, Paris, Greenwich, St. Petersburg.

Regional geological maps in the areas of occurrence of mineral deposits

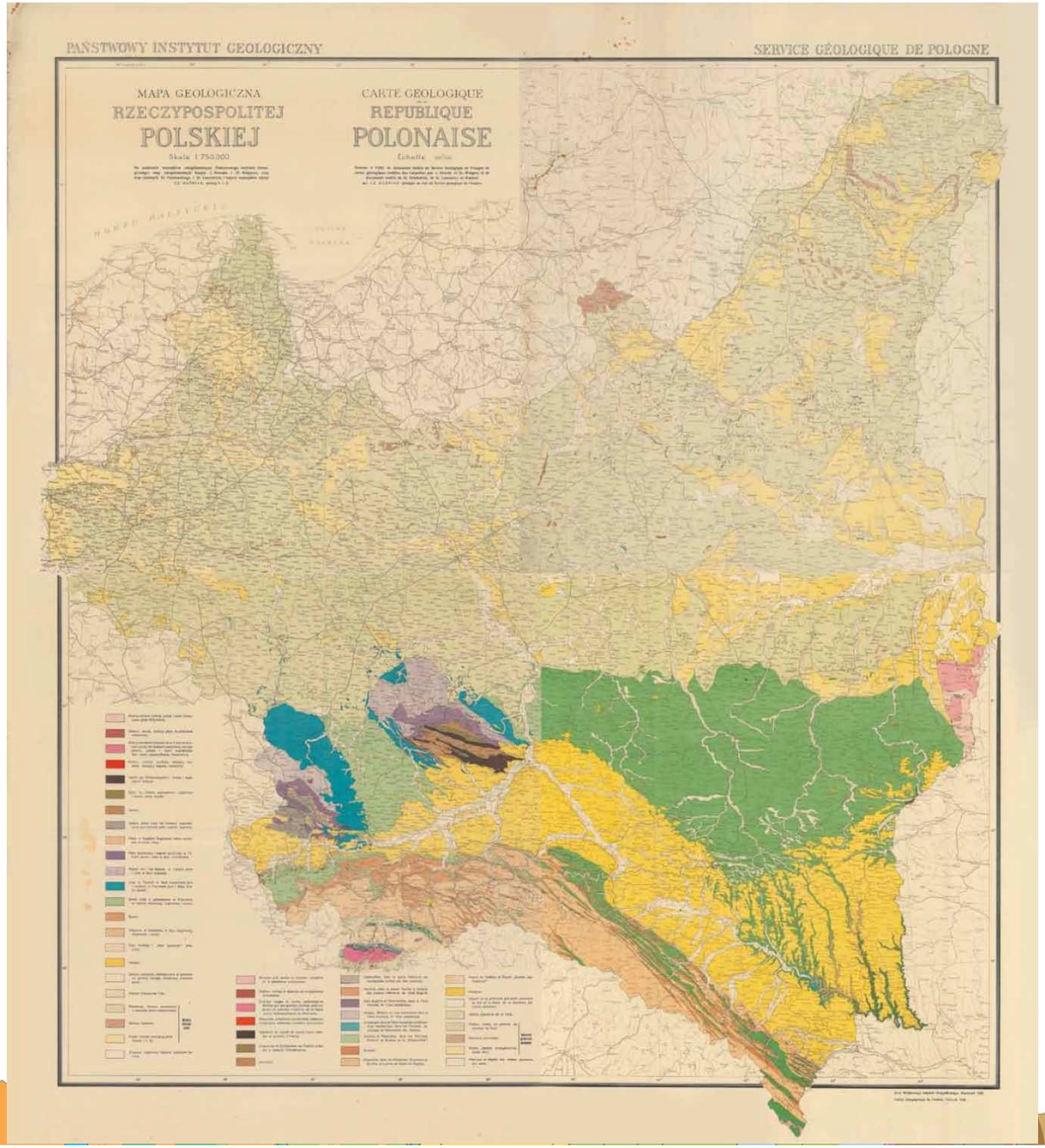


B. Bujalski, 1925



E. Jabłoński, S. Weigner, 1923

Geological map of the Republic of Poland

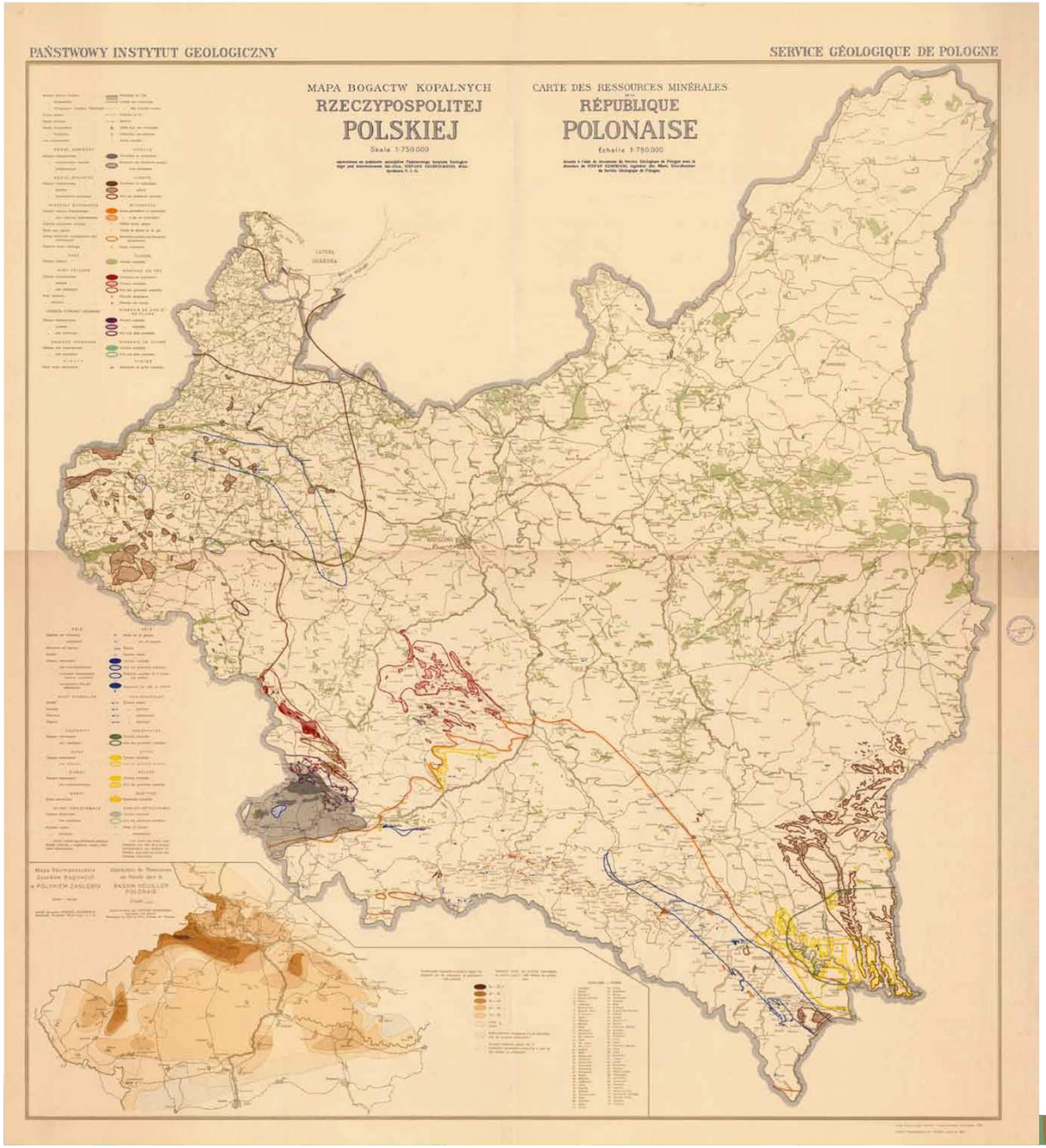


It is the first geological map of the entire country developed after regaining independence. Its author is Czesław Kuźniar, but by the decision of the director of PGI, prof. Józef Morozewicz, all geologists working in Poland were obliged to make their materials available for the preparation of this map.

CZ. Kuźniar, 1926

1:750 000

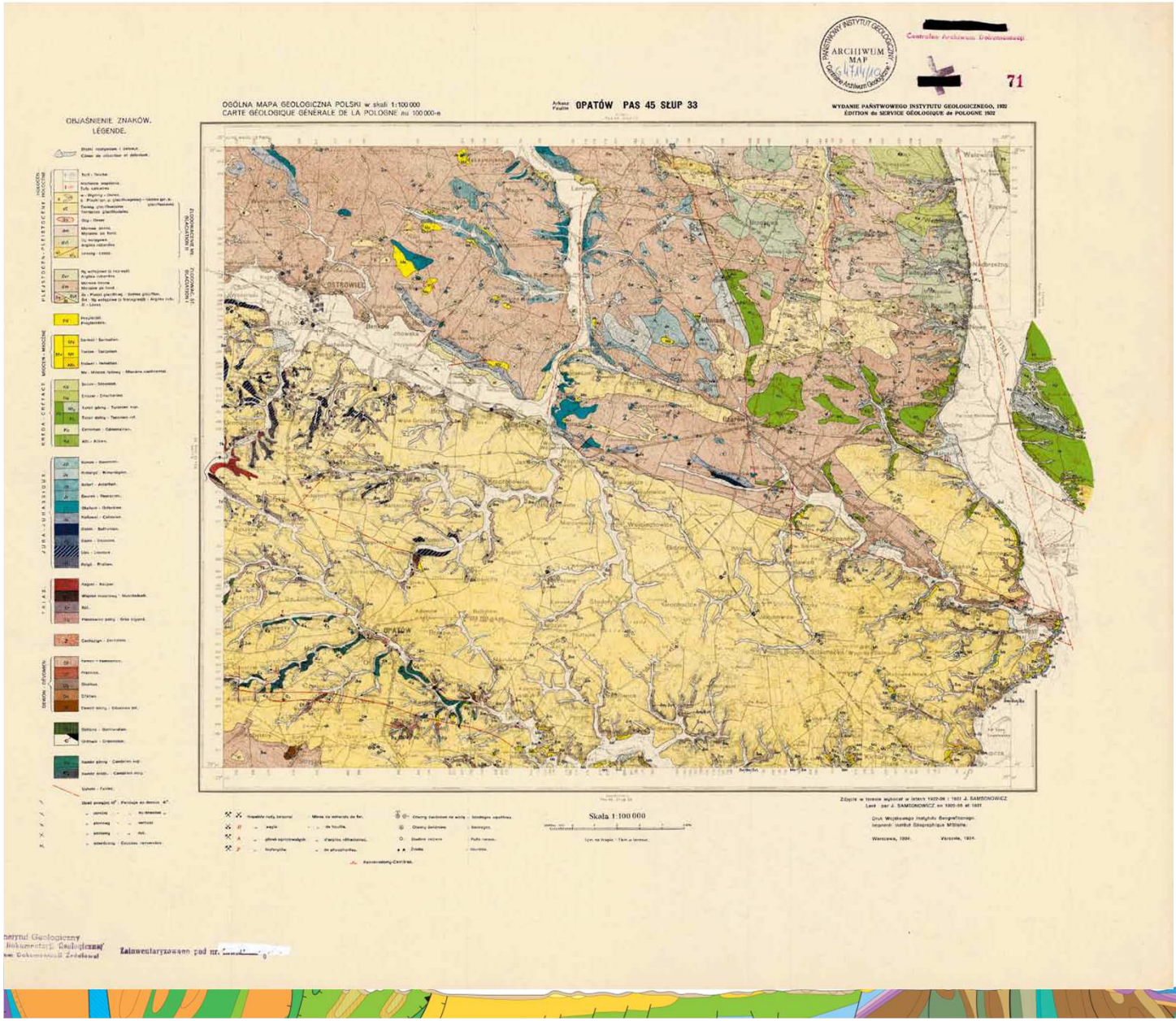
Map of mineral resources of Republic of Poland



This map contains information about both existing, documented and exploited deposits, but its author Stefan Czarnocki also marked prognostic and prospective areas for the occurrence of mineral deposits. This dam has very extensive text explanations, which contain information about the volume of exploitation and the import and export of mineral resources. The whole is an extremely modern publication for those times.

S. Czarnocki, 1931
1:750 000

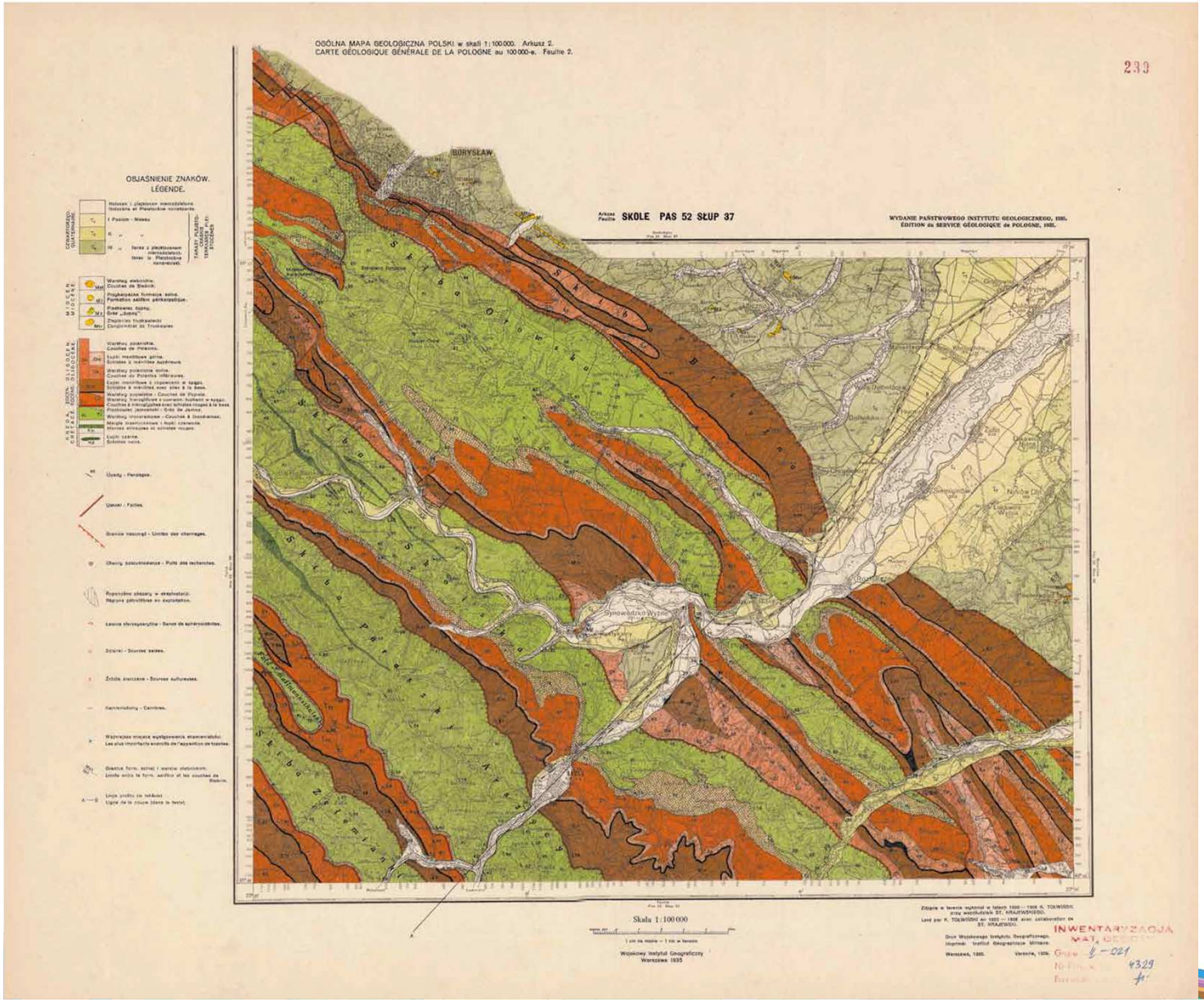
General geological map of Poland on a scale of 1:100 000 Sheet Opatów



This map was the implementation of the adopted concept of publishing maps in the scale of 1:100,000, based on unpublished field materials collected in the scale of 1:25,000.

J. Samsonowicz, 1932 with explanations in Polish (1932) and French (1934)

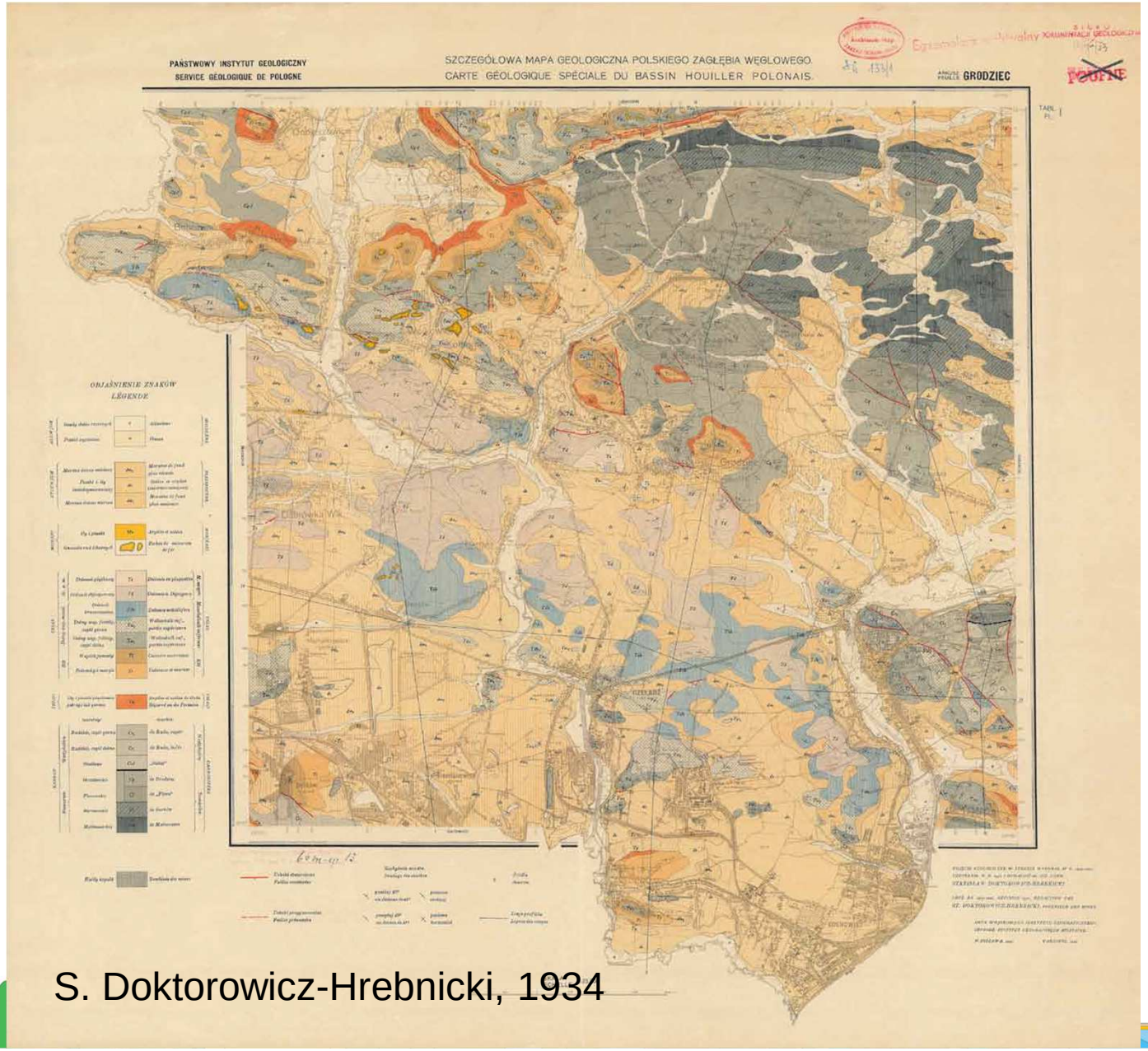
General geological map of Poland on a scale of 1:100 000 Sheet Skole



This map in the NW corner is irregularly extended to include the area of the Borysław Oil Basin. Tołwiński was the most outstanding researcher of oil deposits in the interwar period.

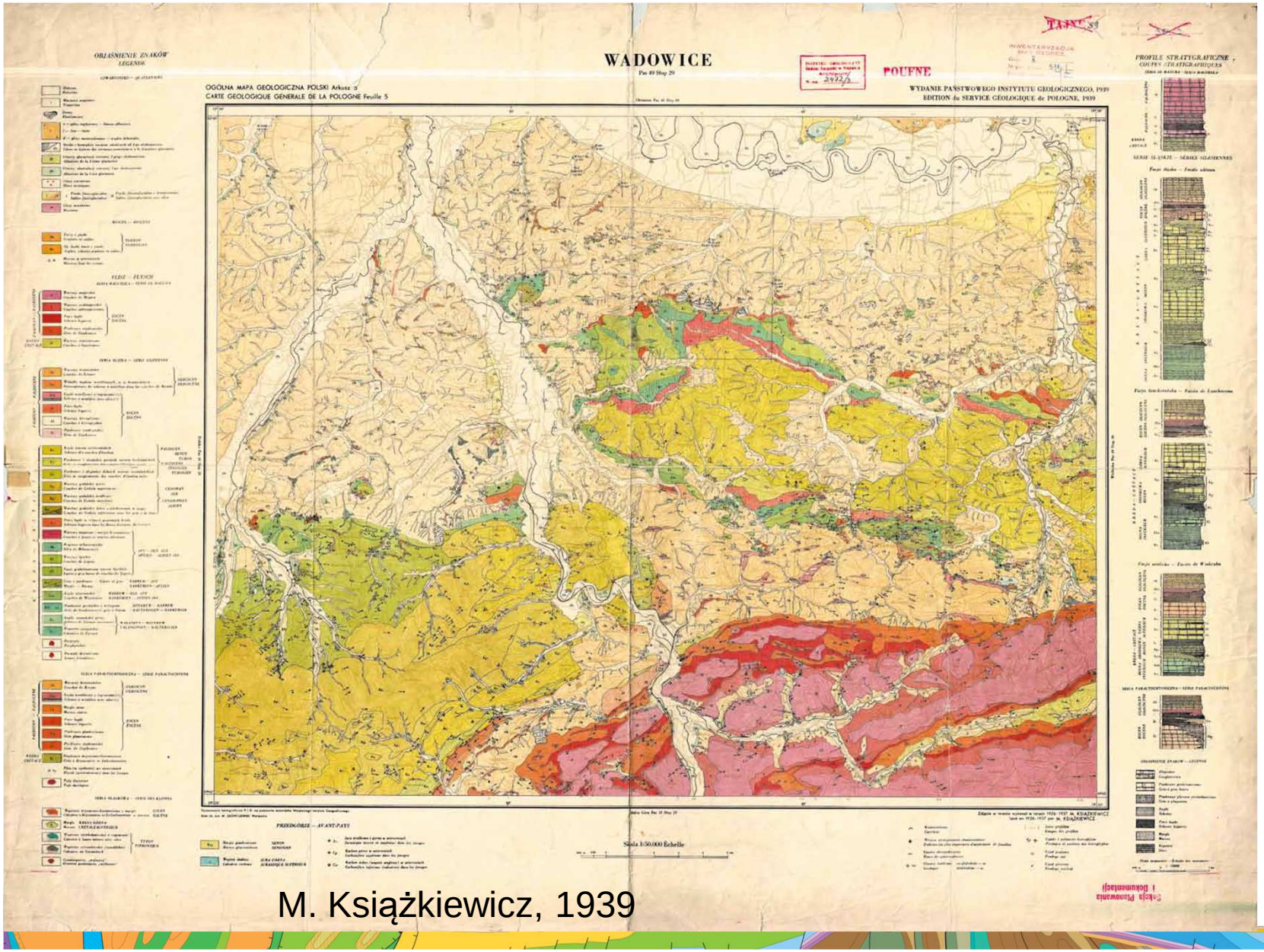
K. Tołwiński, 1935

Detailed Geological Map Polish Coal Basin 1:25 000 Sheet Grodziec



S. Doktorowicz-Hrebnicki, 1934

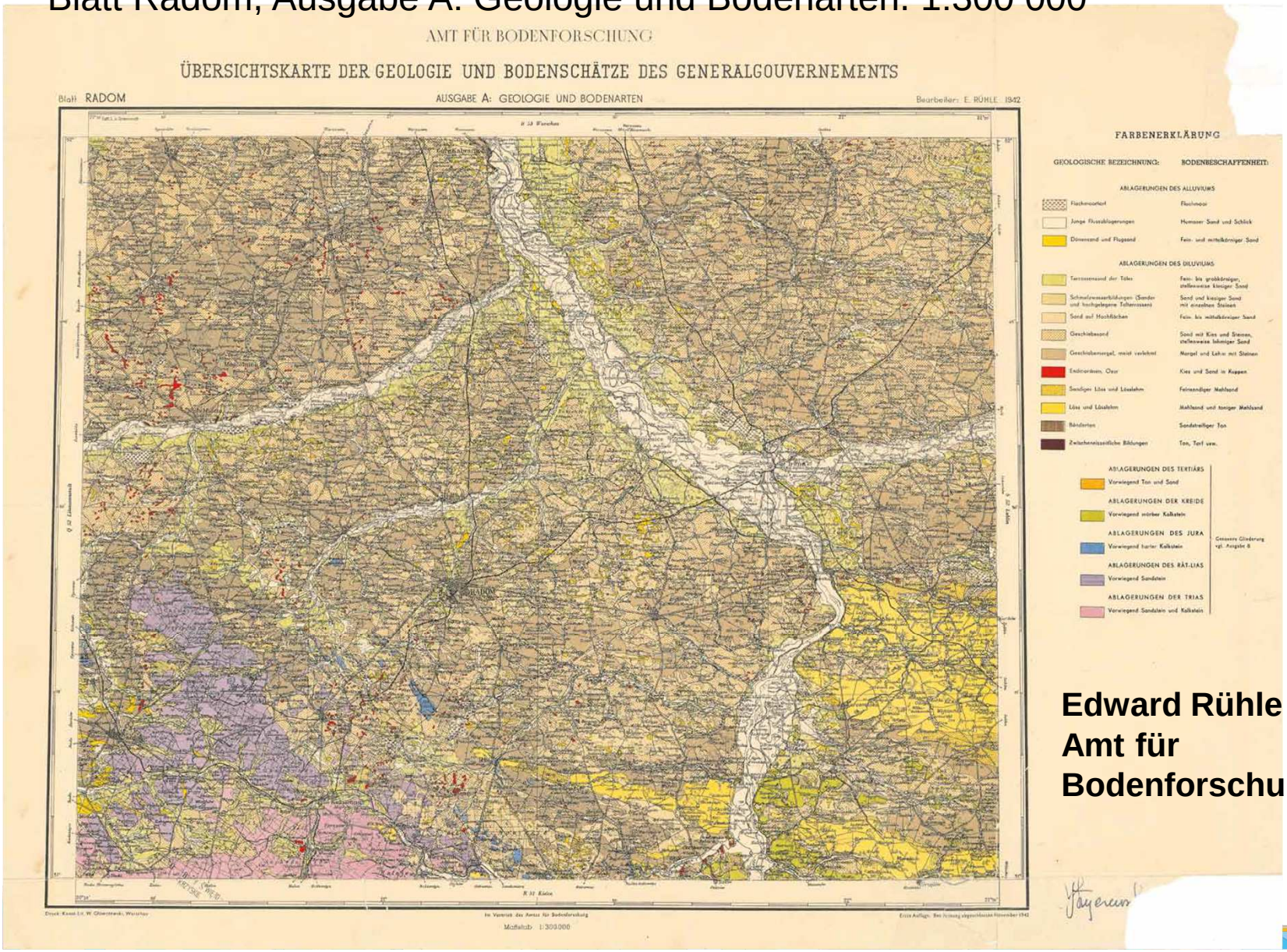
General geological map of Poland on a scale of 1:50 000
Sheet Wadowice



M. Książkiewicz, 1939

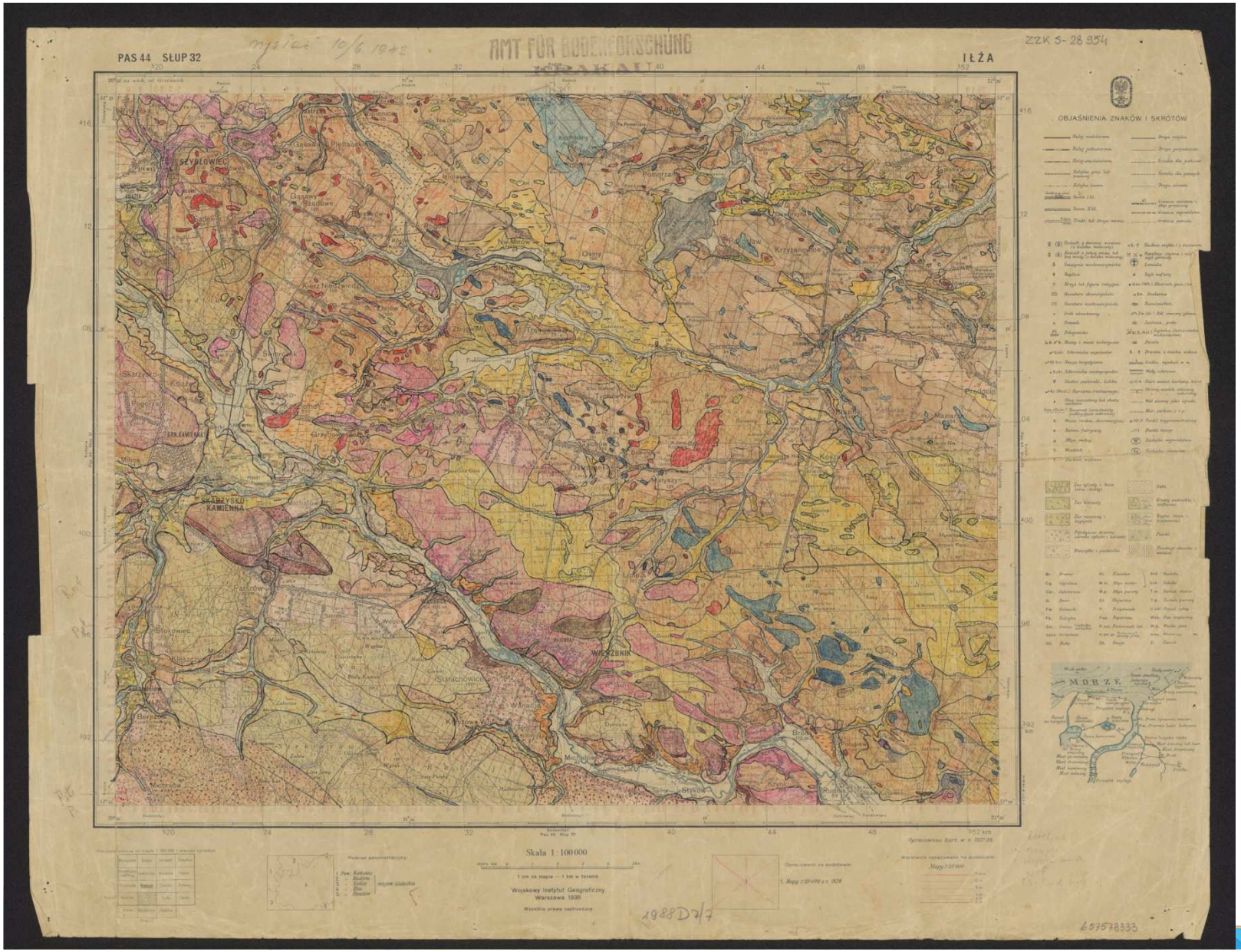
World War II period

Übersichtskarte der Geologie und Bodenschätzedes General-Gouvernements
Blatt Radom, Ausgabe A: Geologie und Bodenarten. 1:300 000



Edward Rühle
Amt für
Bodenforschung, 1942

World War II period - Unpublished maps. Map manuscripts found by Dr. Lucyna Szniawska in the archives of the National Library in Warsaw. Sheet Iłża



E. Rühle,

W. Pożaryski,
Cz. Kuźniar,
M. Kobyłecki,
J. Samsonowicz

Period after 1945

In the period after 1945, there was a very rapid development of cartographic works. The post-war Polish economy needed mineral resources, and geological maps are the basis for searching for them.

The author of all the most important cartographic concepts was prof. Edward Rühle, a longtime deputy director and later director of PGI.

Systematic cartographic work was started, and the basic sheet cut was adopted for the detailed geological map of Poland at a scale of 1:50,000. For the whole of Poland, it required the development of 1,069 sheets.

To this day, all serial thematic maps are developed on this scale.

Prof. Edward Rühle

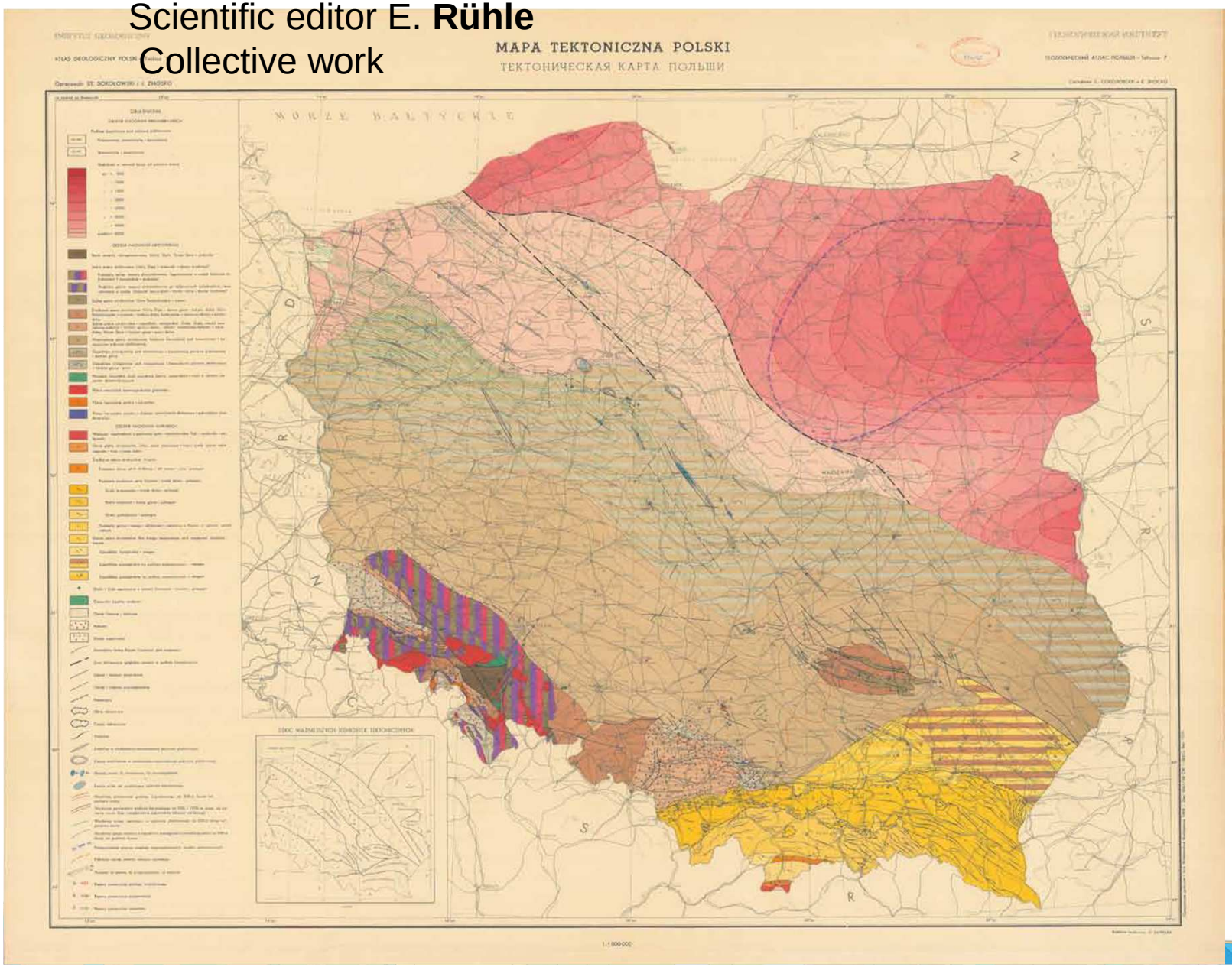
1905-1988

Some examples…….

Geological Atlas of Poland (1954-1962): Tectonic map of Poland 1:1 000 000

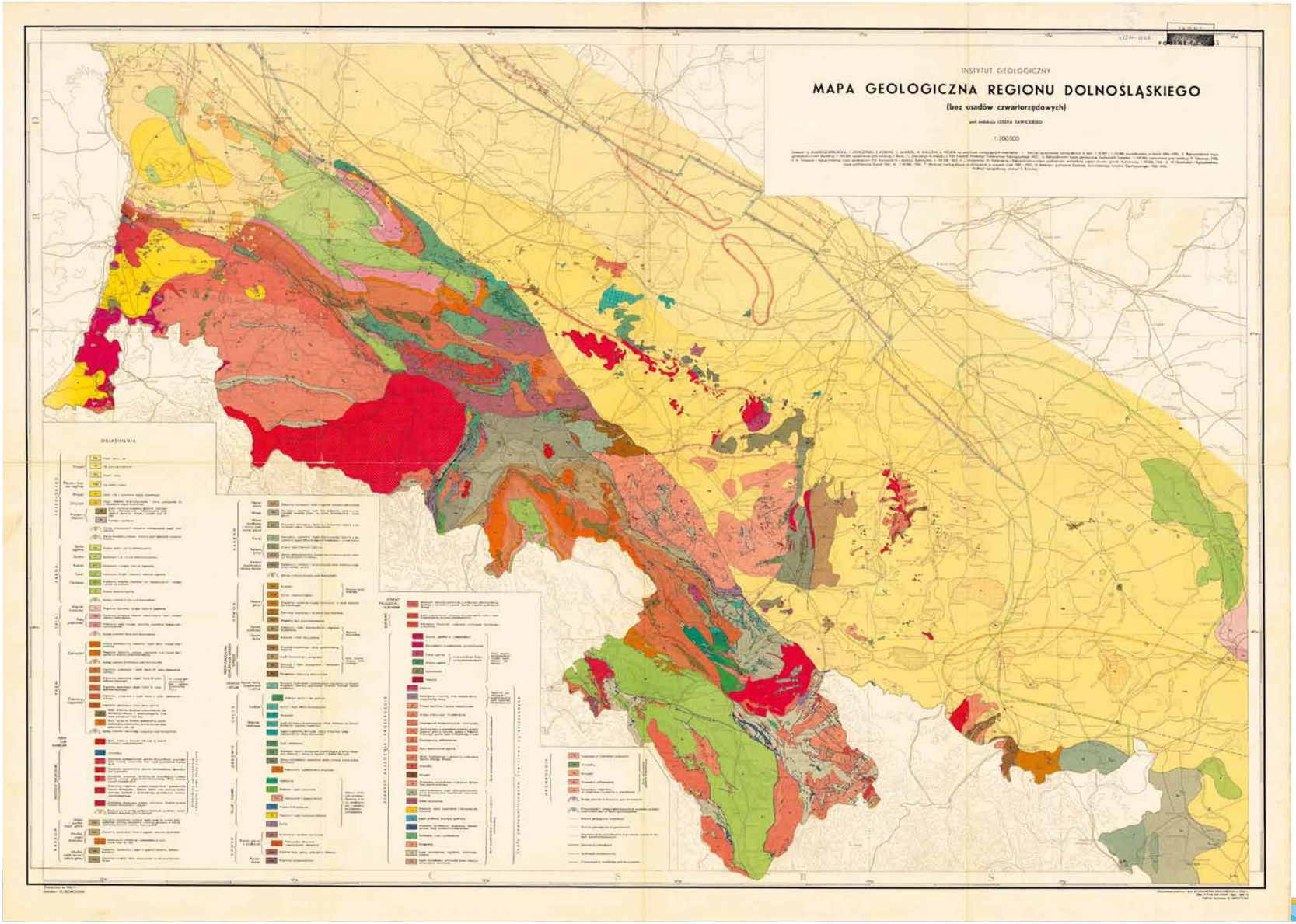
Scientific editor E. **Rühle**

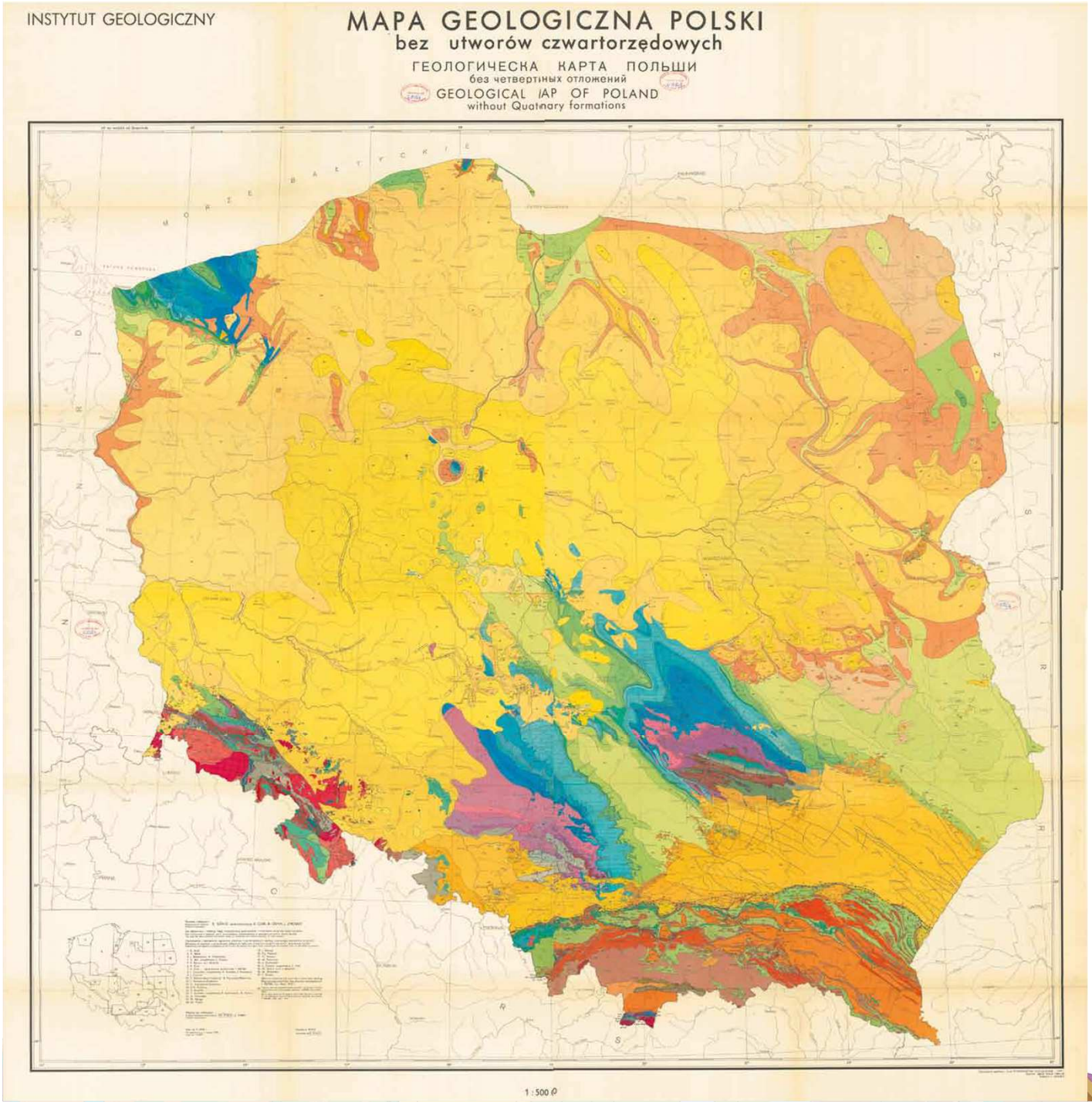
Collective work



Geological map of the Lower Silesia region (without Quaternary sediments) 1:200 000

L. Sawicki [Red.] 1965





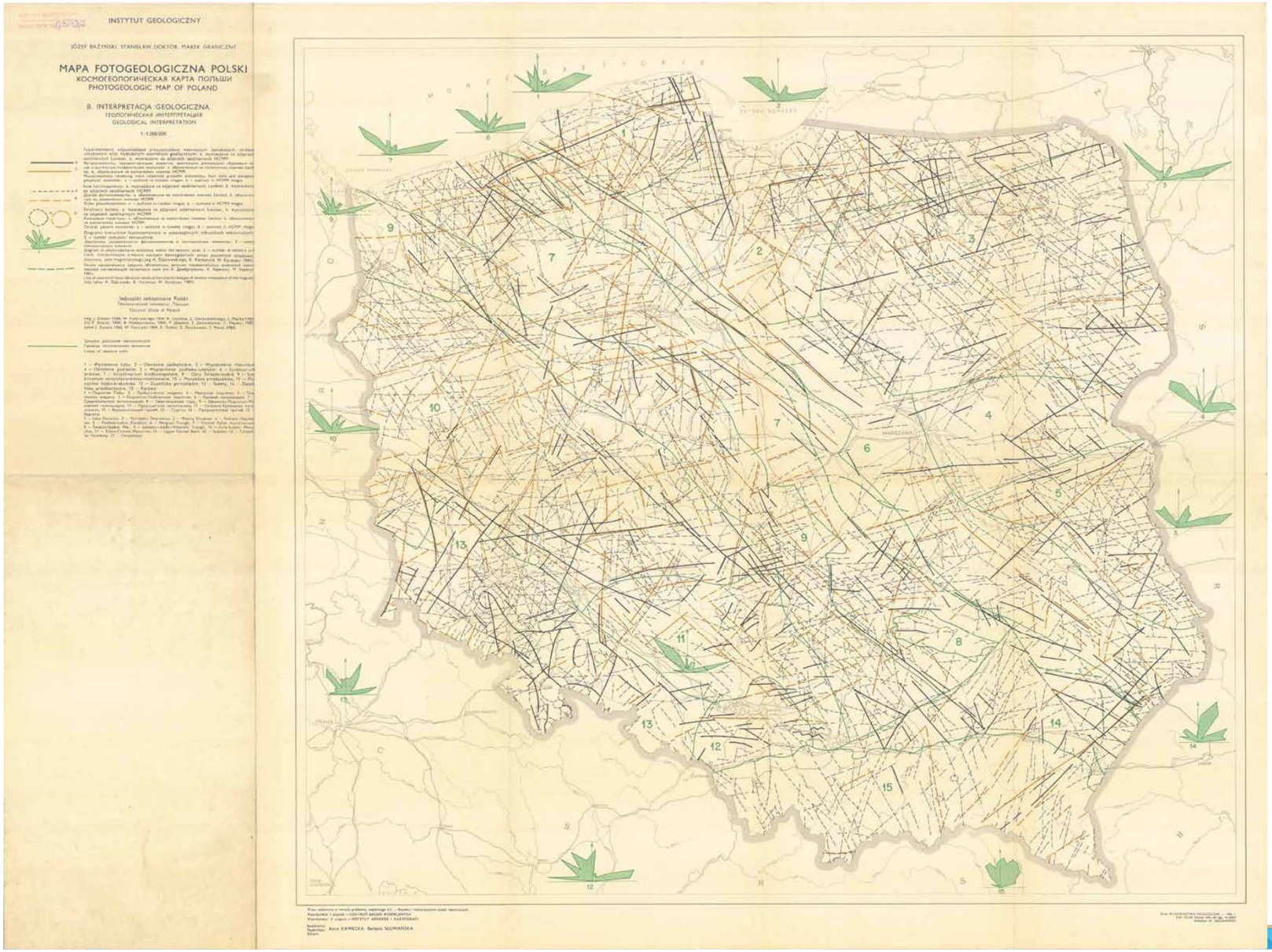
Geological map of Poland (without Quaternary sediments) 1977

1:1 000 000

Scientific editing: Edward Rühle (chairman), Edward Ciuk, Roman Osika, Jerzy Znosko

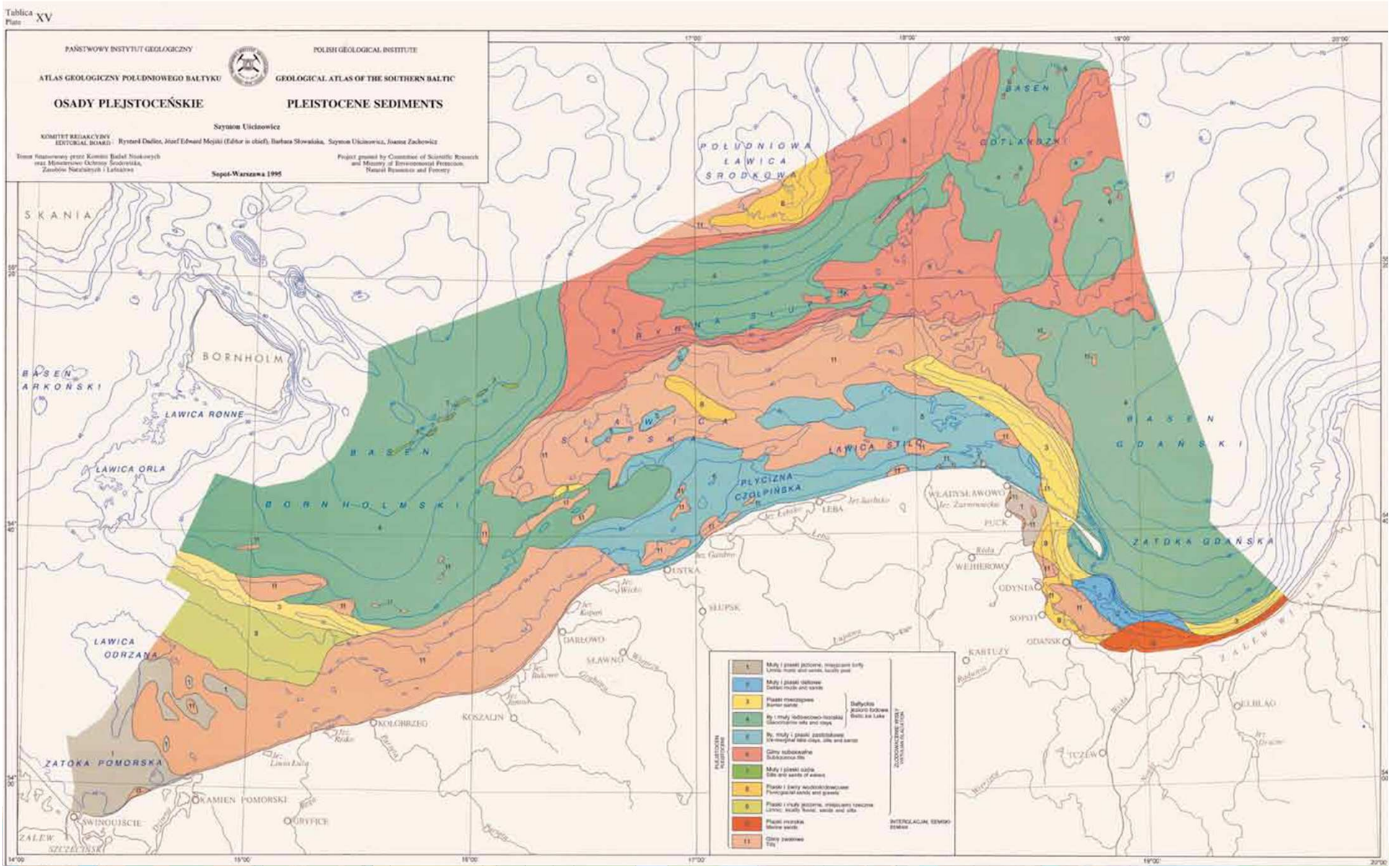
Photogeologic map of Poland 1:1 000 000

Józef Bażyński, Stanisław Doktór, Marek Graniczny (1984)



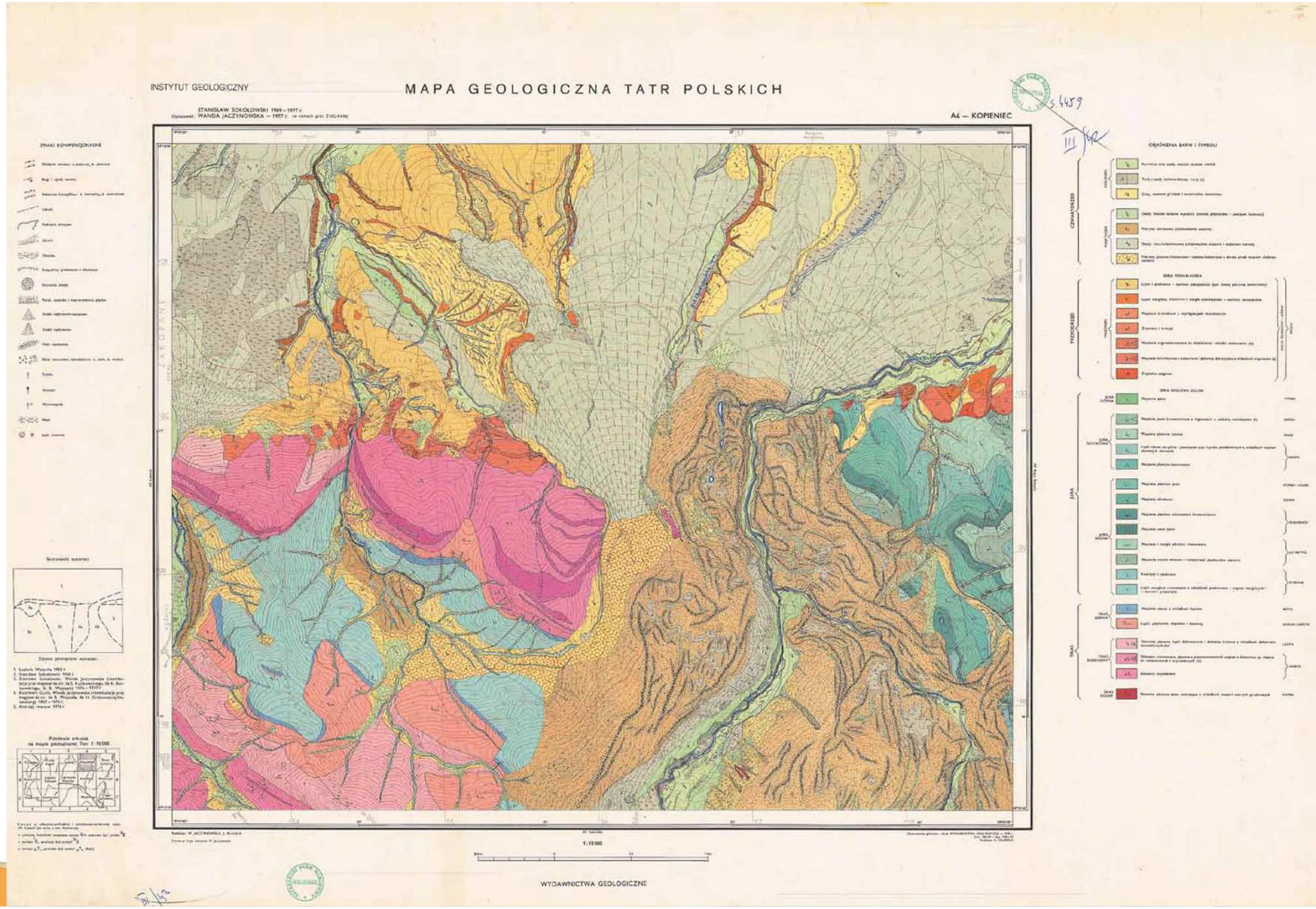
Geological Atlas of the Southern Baltic 1:500 000

Editorial Committee: Ryszard Dadlez, Józef Edward Mojski (editor-in-chief),
Barbara Słowańska, Szymon Uścinowicz, Joanna Zachowicz



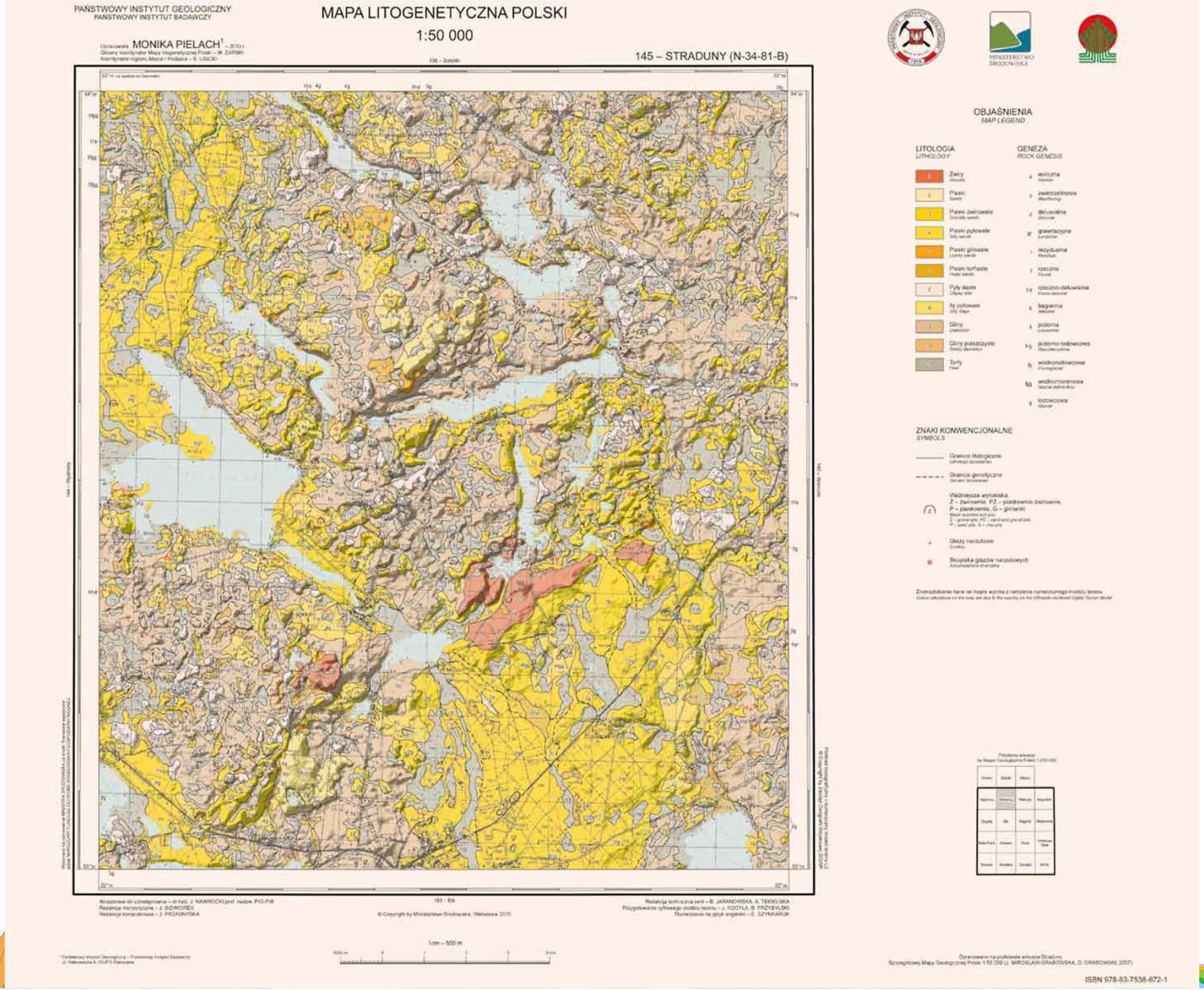
Geological map of the Polish Tatras A4 – Kopieniec 1:10 000

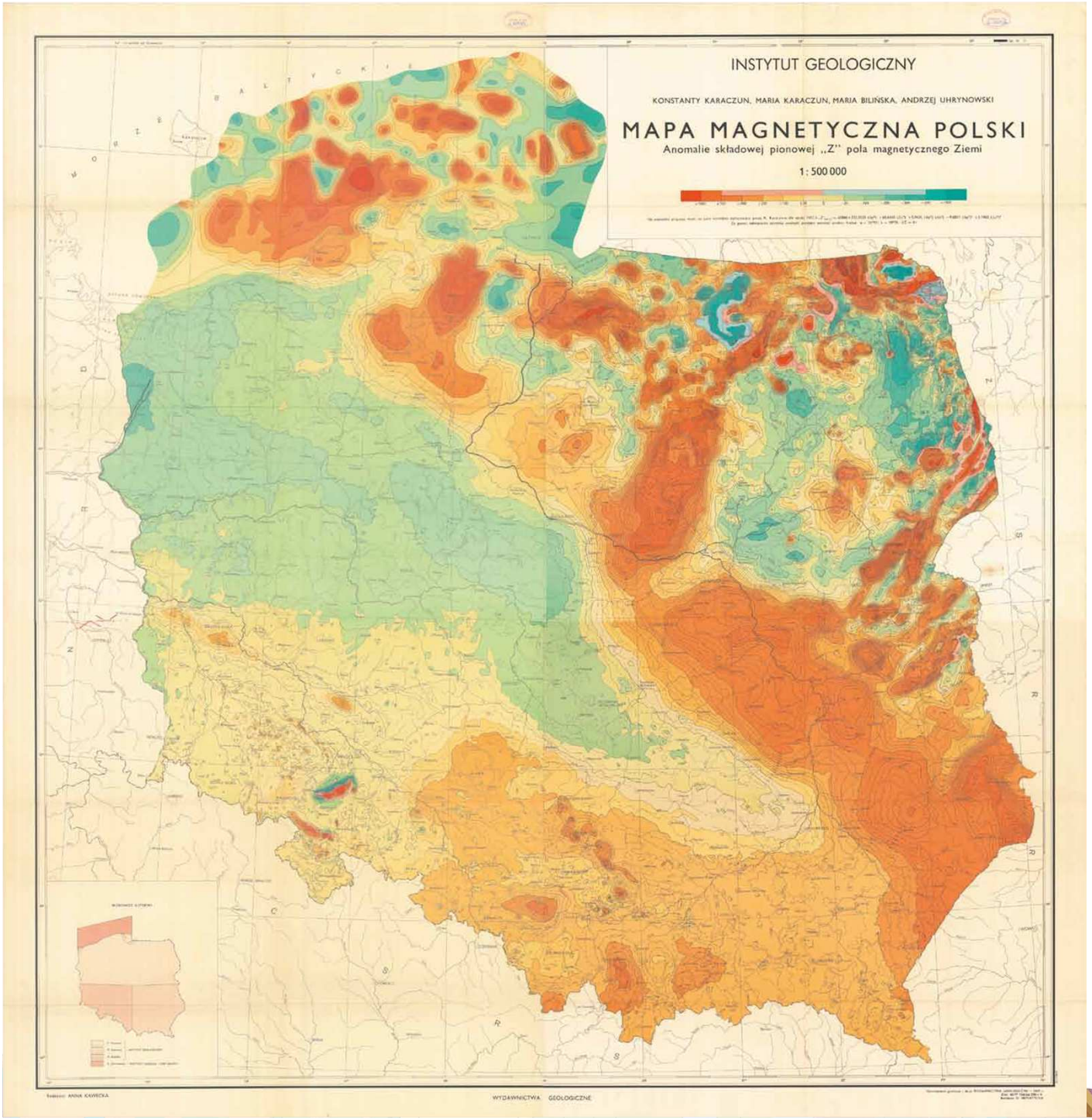
Stanisław Sokołowski, Wanda Jaczynowska, 1979



Lithogenetic Map of Poland; Sheet Straduny 1:50 000

Monika Pielach, 2010



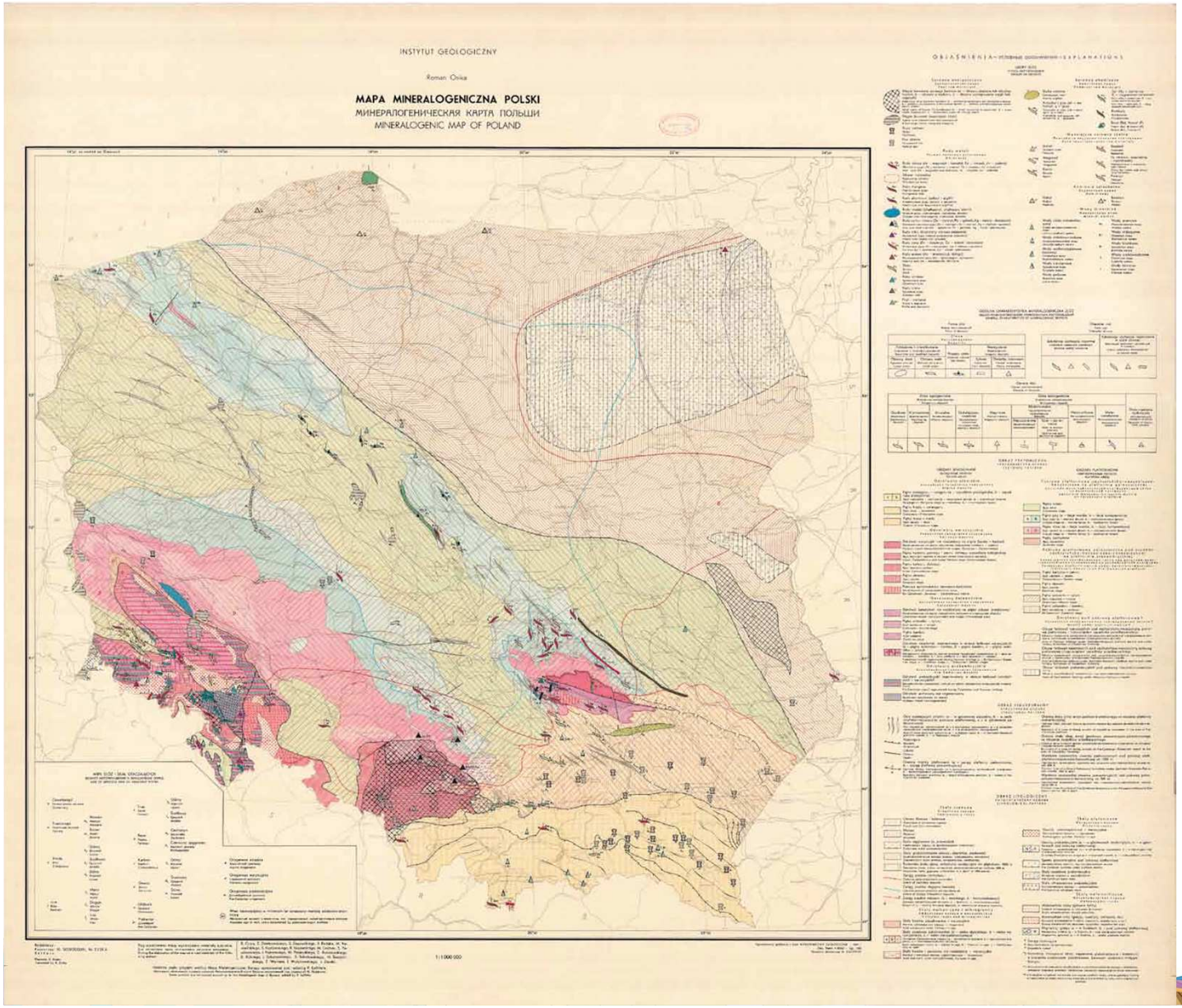


Geophysical Atlases and Maps

Magnetic map of Poland 1:1 000 000
Konstanty Karaczun, Maria Karaczun, Maria Bilińska, Andrzej Uhrynowski, 1978

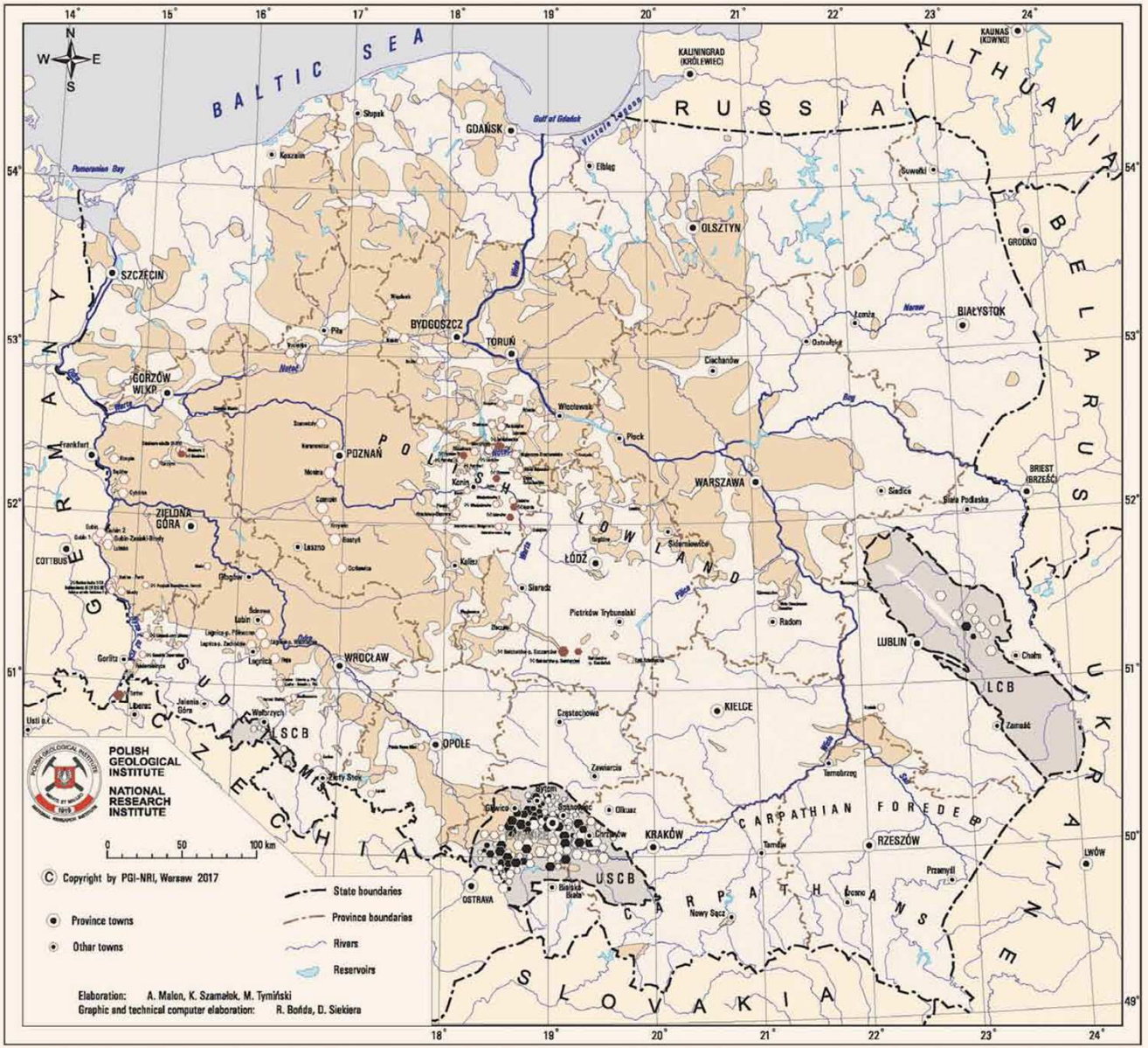
Geological and raw materials atlases and maps

Mineralogenic map of Poland 1:1 000 000; Roman Osika (1969)

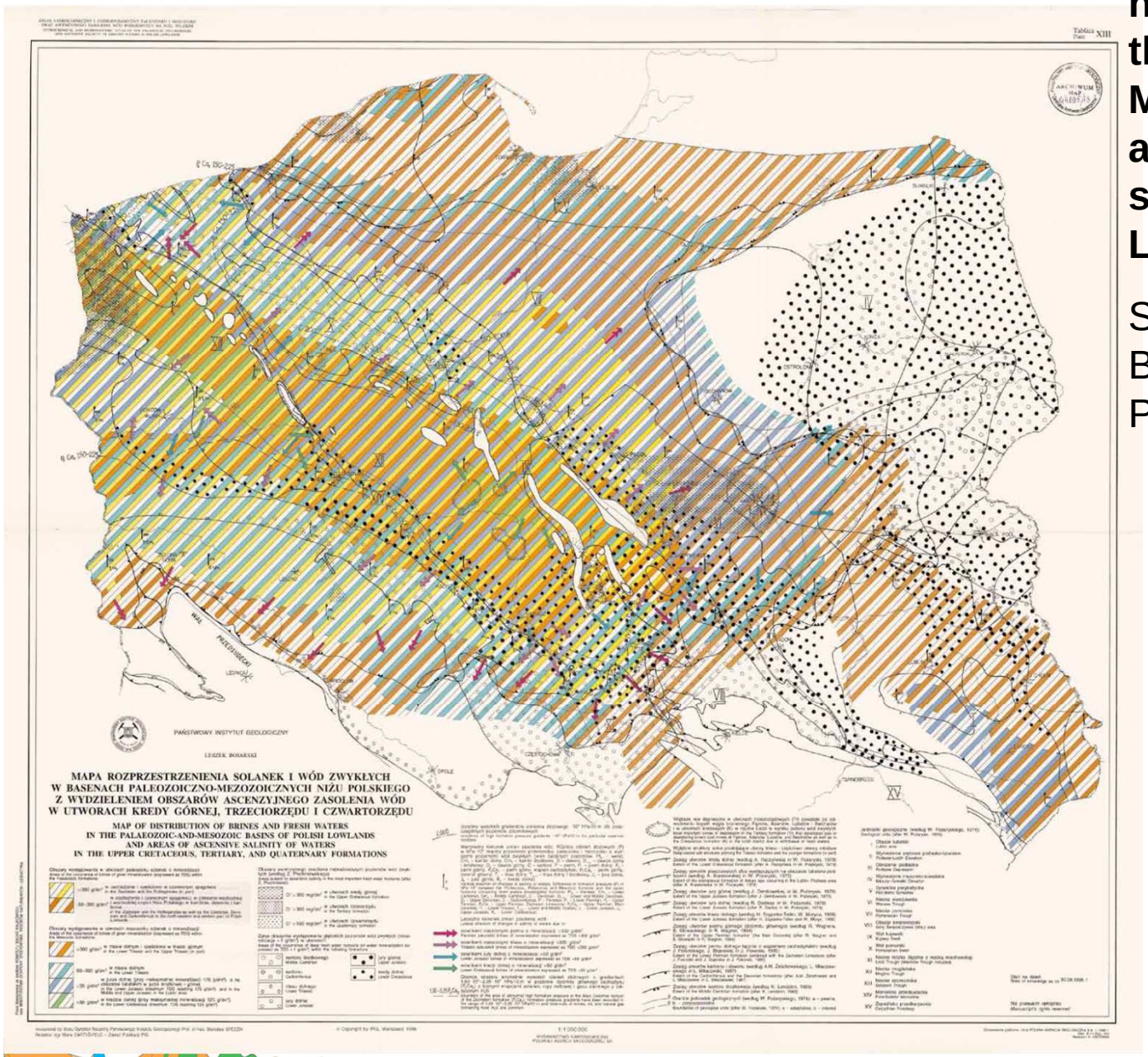


Mineral resources of Poland (2017) Plate 2 Hard Coal and Lignite Deposits 1:2 500 000

Agnieszka Malon, Krzysztof Szamałek,, Marcin Tymiński, 2017



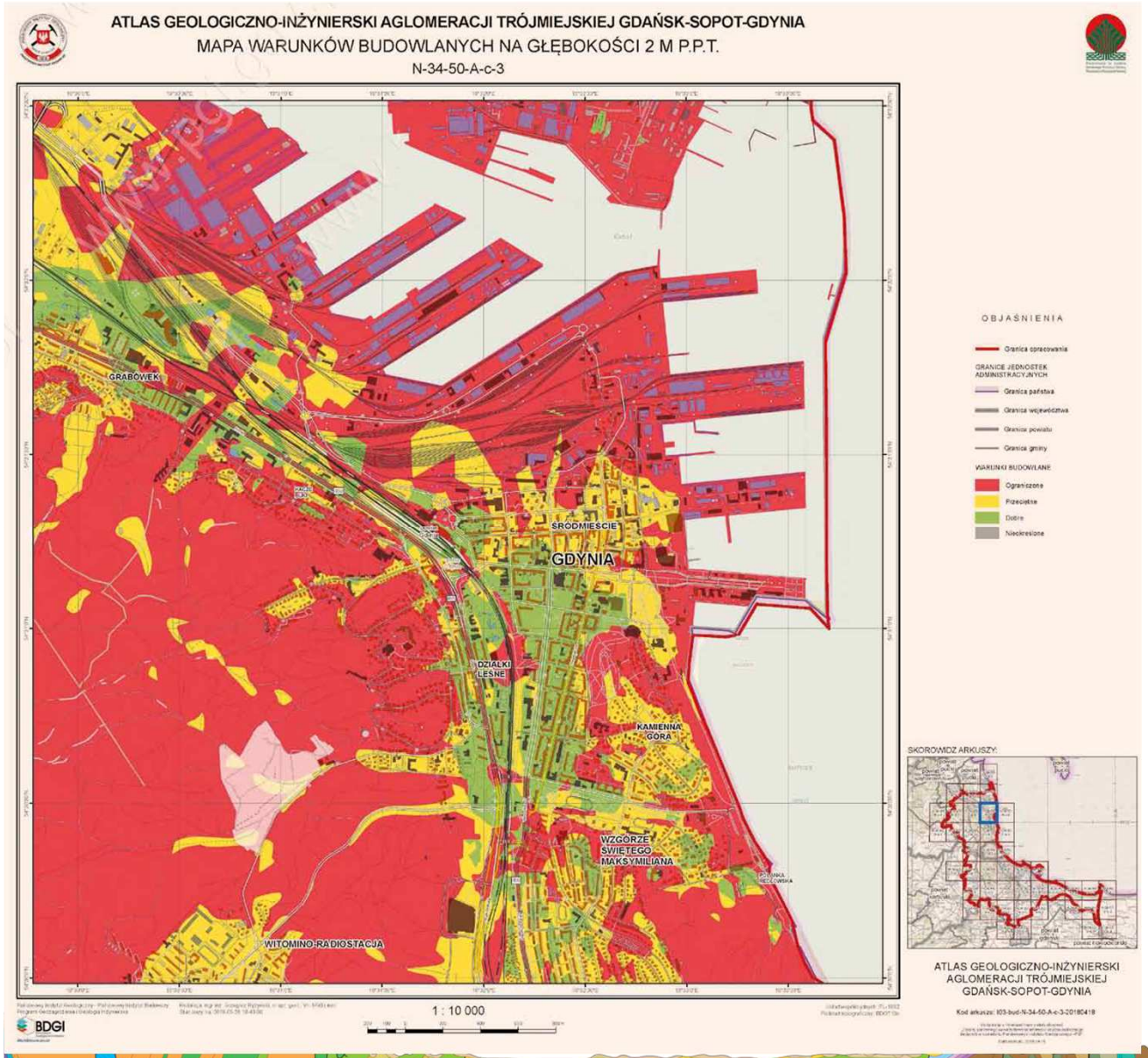
Hydrological atlasys and maps



Hydrochemical and hydrodynamic atlas of the Paleozoic and Mesozoic and ascension groundwater salinity in the Polish Lowlands 1:1 000 000

Scientific editors: Leszek Bojarski, Zenobiusz Płochniewski, 1996

Geoengineering Atlases and Maps



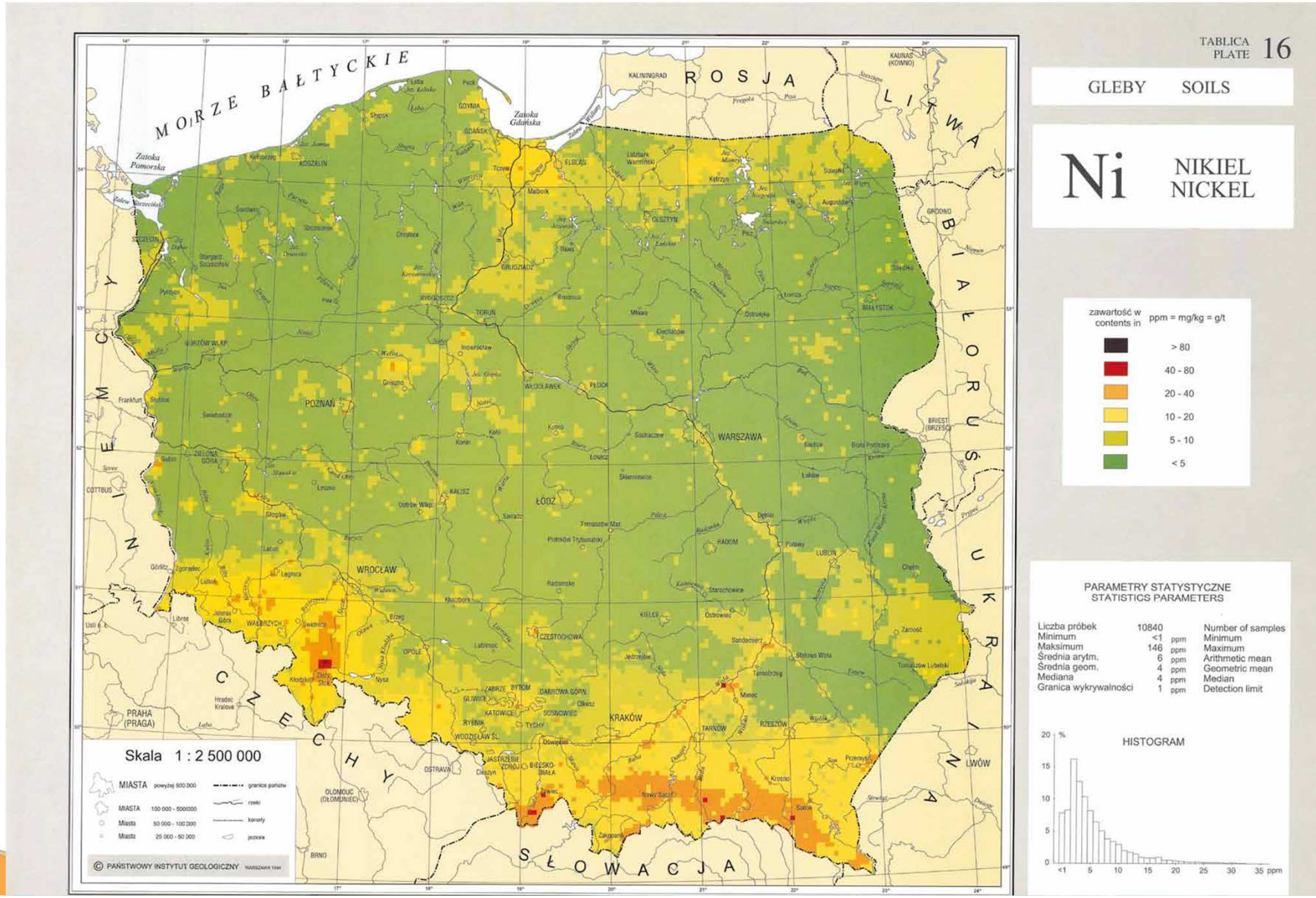
Geological and Engineering Atlas of the Tri-City Agglomeration Gdańsk-Sopot-Gdynia

Collective study, 2018

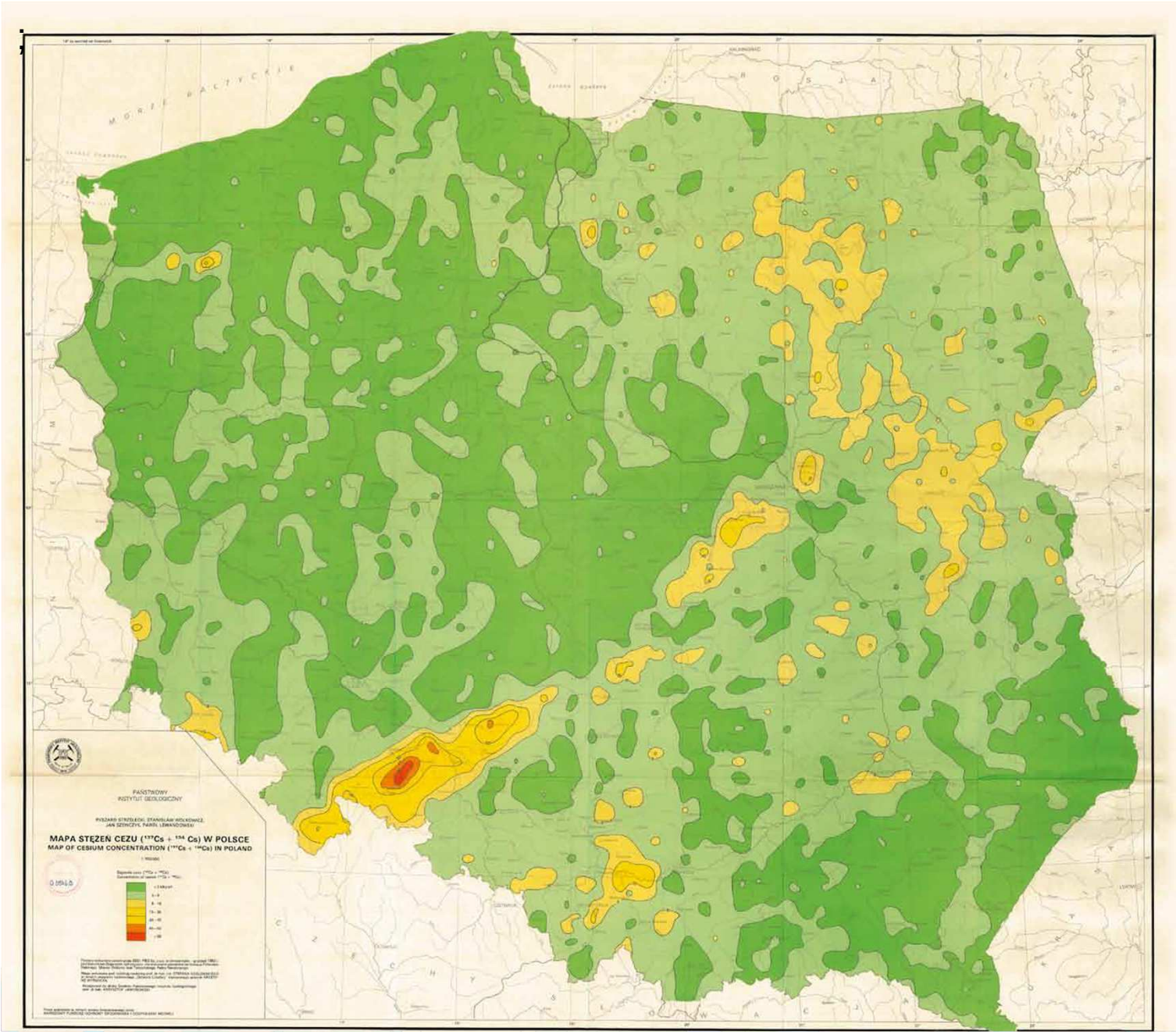
Geochemical and geological-environmental atlases and maps

Geochemical Atlas of Poland 1:2 500 000; J. Lis, A. Pasieczna,1995

Map of nickel distribution in Poland



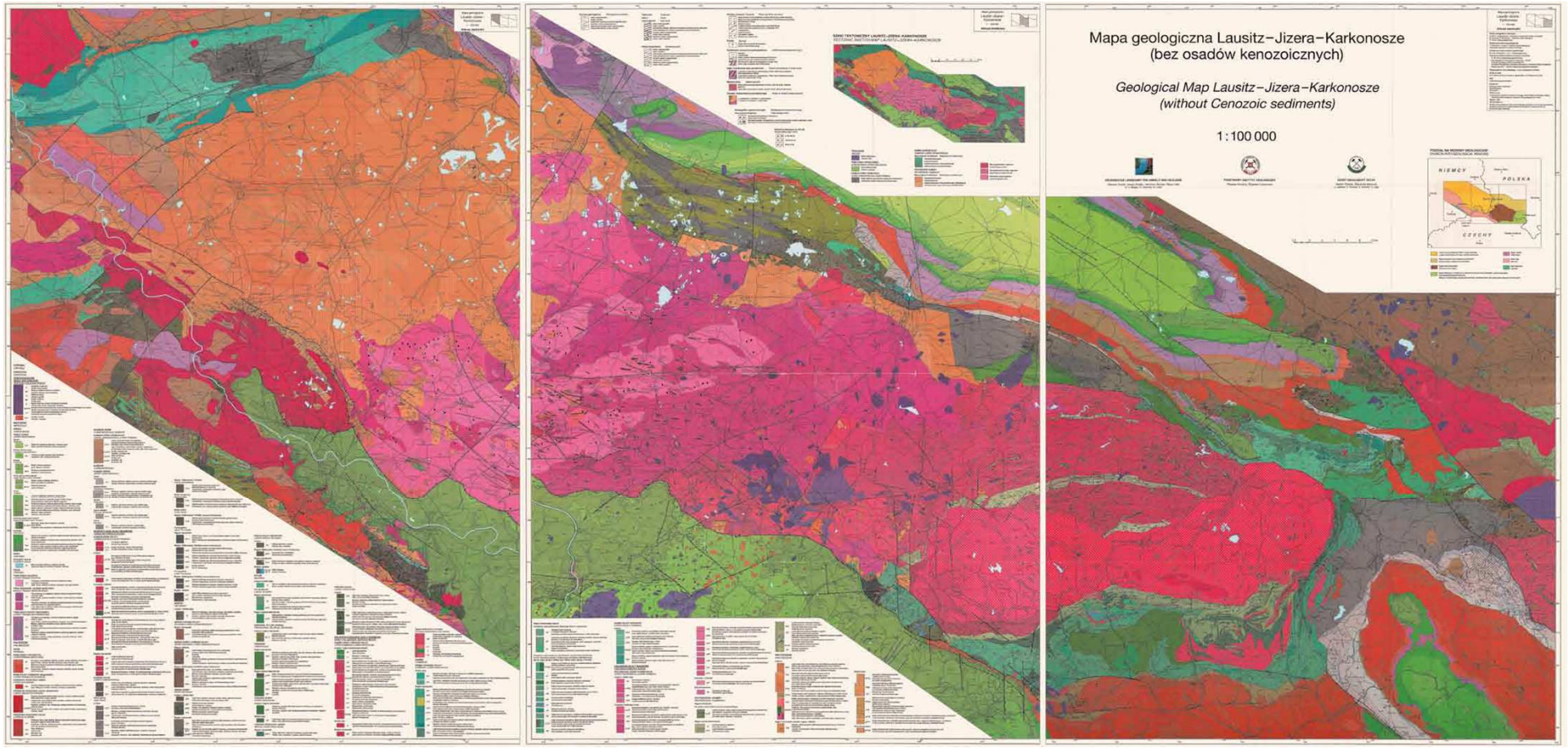
Radioecological Atlas of Poland 1:750 000



Distribution of post-Chernobyl caesium in Poland

Ryszard Strzelecki, Stanisław Wołkowicz, Jan Szewczyk, Paweł Lewandowski, 1993-1995

Cross-border geological atlases and maps

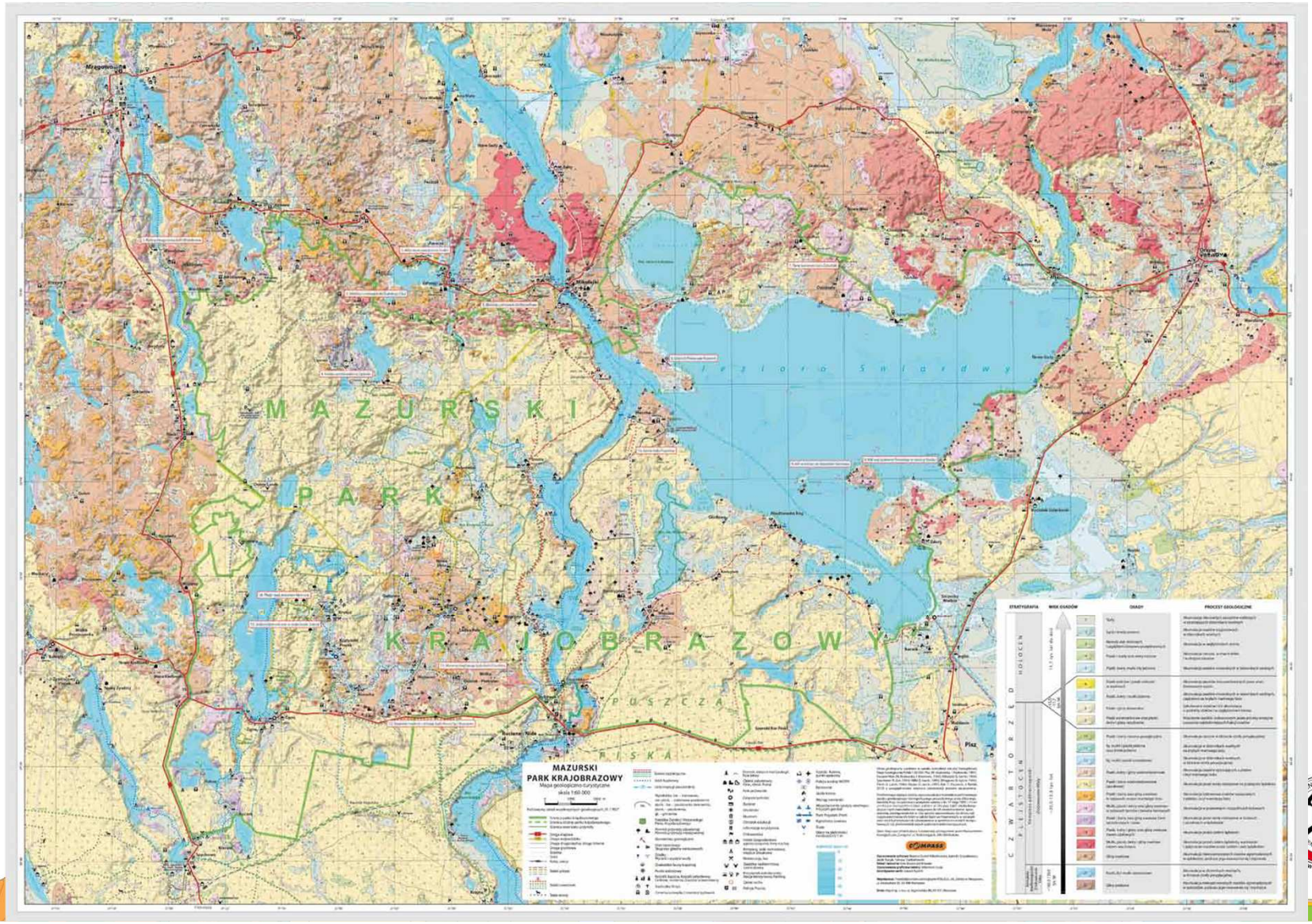


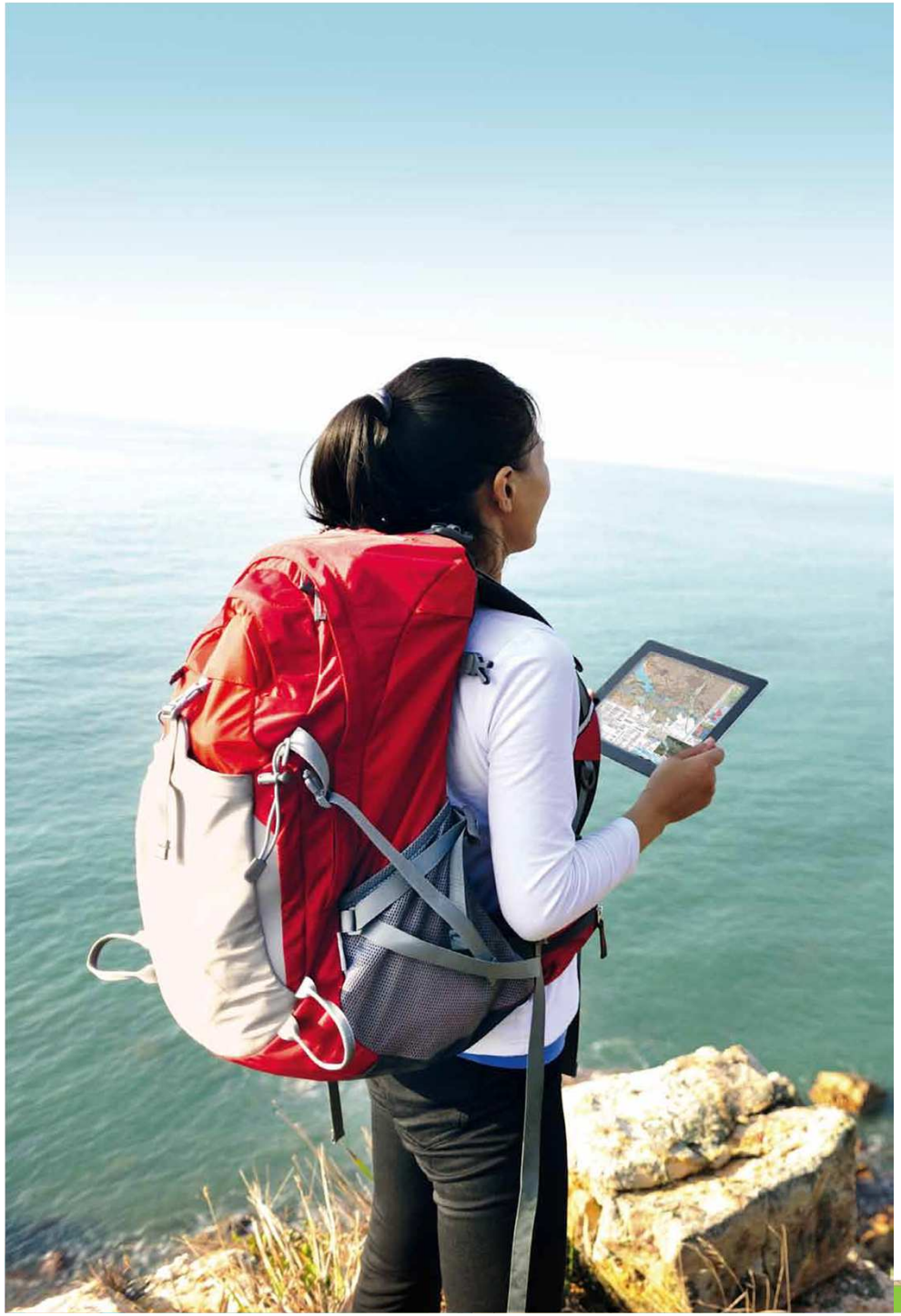
Geological map of Lausitz–Jizera–Karkonosze (without Cenozoic sediments) 1:100 000

Ottomar Krentz, Harald Walter, Hermann Brause, Klaus Hoth, Wiesław Kozdrój, Zbigniew Cymerman, Mojmir Opletal, Štepanka Mrázová, 2000

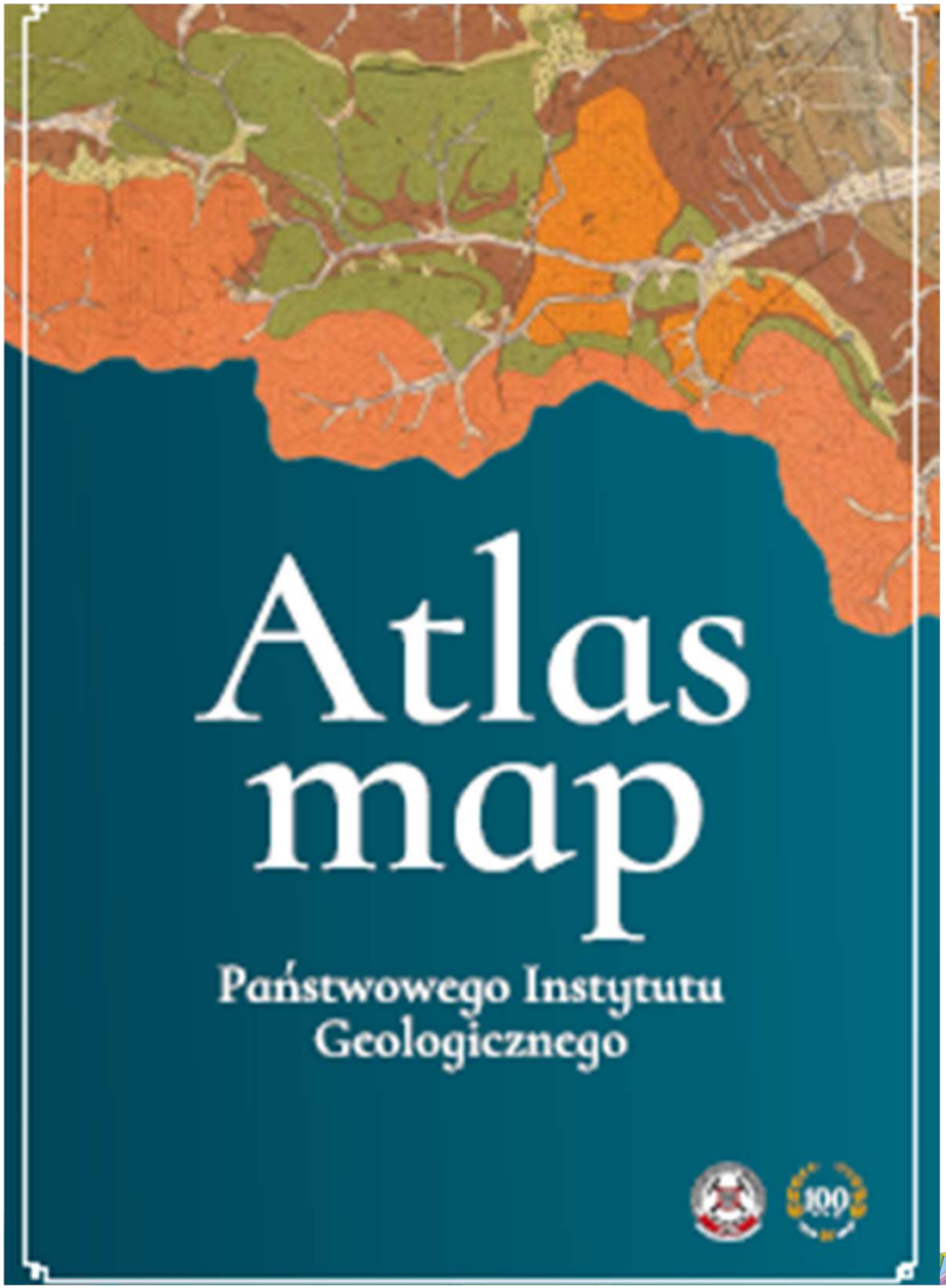
Geological-tourist maps

Geological and tourist map of the Masurian Landscape Park 1:60 000
Joanna Rychel, Stanisław Lisicki, Marcin Morawski, 2014





We look into the future, but summarizing the past: for 100 years of its activity, the Polish Geological Institute has developed and published over **15,500** atlases and maps.



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Thank you for your attention

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