

## **Mineralogic-petrographical school of Stanisław Małkowski at the Stefan Batory University**

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Narębski W. & Wójcik Z. Mineralogic-petrographical school of Stanisław Małkowski at the Stefan Batory University. *Geologija*. Vilnius. 2003. No. 44. P. 22–30. ISSN 1392-110X.

The first academic teachers of geosciences after the formation of the Faculty of Mathematics and Natural Sciences at the Stefan Batory University in Vilnius (Vilna) in 1919 were Juozas Lukoševičius (Józef Łukaszewicz) and Bronisław Rydzewski, whereby the lectures of mineralogy and crystallography were initiated by the former. In 1925 a separate Chair of Mineralogy was formed, directed by Paweł Radziszewski who, because of poor health, was since 1931 helped and in 1934 succeeded by Stanisław Małkowski, an outstanding geoscientist and excellent organizer. The team of his assistants and coworkers, following the scientific interests of their master and his instructions, was investigating the crystalline and magmatic rocks of Volhynia (Irena Kardymowicz, Jan Wojciechowski) as well as Quaternary and other deposits of the whole Vilnius region (Antonina Jaroszewicz-Kłyszzyńska, later Halicka, Bronisław Halicki, Valerija Čepulytė and others). These complex studies, based on application of petrographic criteria in determining the age and sources of glacial deposits resulted in the presentation of a petrographic map of the Vilnius region, showing also the occurrences of mineral raw materials. Moreover, the obtained data allowed to elaborate a detailed stratigraphic scheme of regional Quaternary deposits and consequently the course of evolution of this area during the youngest geological period. Małkowski's Lithuanian pupils have later successfully continued these studies.

**Key words:** Stanisław Małkowski, petrography, mineralogy, SB University, Volhynian rocks, Quaternary deposits

Received 8 October 2003, accepted 21 October 2003

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### **INTRODUCTION**

Studies on the history of mineralogic-petrographical sciences at the Stefan Batory University (SBU) were initiated by the second author (Z. W.) but, because of technical problems, they were limited to the inquiry in archives and libraries, carried out mainly in Vilnius, Warsaw and Toruń. Their results, concerning predominantly biographies of academic teachers,

were partly published (Wójcik, 1992; 1997). Besides, some important data on this subject were presented by A. Gaigalas (1972).

Before the World War I within the territory of the former Polish–Lithuanian Commonwealth there existed several colleges where geologic sciences were lectured. In Cracow there was first of all the Jagellonian University and, just being organized, Academy of Mining, and in Warsaw and Lvov universities

and polytechnical colleges. The Vilnius University was repressively liquidated in 1832. Only its medical faculty was preserved till 1842 as Medical-Surgical Academy, where mineralogy was lectured. Its collections, including a large geological one, and books were distributed among the Universities of Kharkov, Dorpat, Kazan, Kiev and others. Less important specimens and books were deposited at municipal museums, which were continuously enriched by donations of Vilnius actual and former inhabitants, even those living abroad. As follows from archival materials preserved in the Manuscript Section of University Library in Vilnius, these collections consisted of about 10000 exhibits from different continents. However, a very important Wróblewski's Library was formed, which soon became a kind of national institution. The buildings of the closed University were utilized by secondary schools before the World War I. After the defeat of the January Insurrection (1860) these schools were employing mainly Russian teachers. When moving later to Russia they took away the best instruments. Consequently, when the Vilnius University (SBU) revived at the break of 1918/1919, there were serious problems with appointing local scientists to the posts of heads of departments. Similar difficulties were met in Poznań where in 1919 a new university was formed, bearing the name of Adam Mickiewicz. Consequently, these posts were filled with scientists from Cracow and Lvov Universities. For example, the eminent zoologist Michał Siedlecki (1873–1940) came to Vilnius to form the Faculty of Mathematics and Natural Sciences and was even elected Rector of this University. The Polish–Bolshevik War in 1920 hampered the process of formation of this University, which already bore the name of its founder King of Poland and Great Duke of Lithuania Stefan Batory. After the defeat of Red Army it was successfully developing till December 15, 1939 when it was transformed into Lithuanian University (Wójcik, 1984).

#### INITIAL STAGE OF GEOSCIENCES AT THE STEFAN BATORY UNIVERSITY

The Faculty of Mathematics and Natural Sciences of SBU started officially its activities on November 15, 1919 and included the chairs of mineralogy, geology and physical geography (Rydzewski, 1931). In the first half of 1920 Juozas Lukoševičius (Józef Łukaszewicz) (1863–1928) (Fig. 1) was nominated Assistant Professor of physical geology within the Chair of Geophysics. Nearly simultaneously Bronisław Rydzewski (1884–1945) (Fig. 2) assumed the post of extraordinary professor of geology. Both chairs were soon located in the building called Czarotryski Collegium at the Zakretowa (actually Čiur-



Fig. 1. Józef Łukaszewicz (1863–1928)



Fig. 2. Bronisław Rydzewski (1884–1945)

lionio) street no. 15 together with other physiographic departments. J. Łukaszewicz, living in Bykowka near Medininkai, being essentially an autodidact, was in fact an eminent geologist, author of the excellent book “Inorganic life of the Earth” (1908–1911). He gained his deep theoretical knowledge when impri-

soned for 19 years in the Russian fortress Schlisselburg near St. Petersburg. Łukaszewicz was lecturing all the mathematic and natural scientific branches but first of all mineralogy and crystallography. Such an overmuch didactic activity was significantly limiting the scientific output of this ailing man (Czarnecki, 1973).

B. Rydzewski was a versatile geologist. After secondary school in Vilnius he studied natural sciences at the Russian Warsaw University but soon moved to Cracow to Jagellonian University. In 1910 he gained the Ph. D. degree at Józef Morozewicz's (1865–1941) department on the ground of the thesis "Carboniferous flora of the Brzeszcze Beds" supervised by Władysław Szajnocha (1857–1928). After supplementary studies in Paris, Rydzewski was the head of Geologic Laboratory of the Museum of Industry and Agriculture. During the World War I he was lecturing geology at the Faculty of the Warsaw Polytechnical College. Thanks to his organizational abilities the geologic chair in Vilnius became one of the best in Poland. However, Rydzewski was of poor health, and cerebral haemorrhage in 1933 ended his normal activity (Wójcik, 1992). In 1937 the deserted Chair was assumed by Edward Passendorfer (1894–1984), Associate Professor of geology and palaeontology of the Jagellonian University.

In the academic year 1925/26 the Chair of Mineralogy at the Stefan Batory University started to work, headed by Paweł Radziszewski (1890–1931) (Fig. 3) who came as Assistant Professor from the

State Geological Institute in Warsaw (Rydzewski 1931). He graduated from the Jagellonian University as a J. Morozewicz's pupil and in 1920 gained the Ph.D. degree under Stefan Kreutz's (1889–1941) supervision on the ground of the thesis "On the Nitra and Lesser Carpathian granites" (Czarnecki, 1964), published as "On Carpathian Granites" in 1924 (Wójcik, 1987). In 1929 Radziszewski was qualified as Assistant Professor on the ground of two dissertations "Microscopic-petrographic study of crystalline rocks of Volhynia south of the Słucz river" (1925) and "Granites from Korzec and Ośniek in Volhynia" (1928). In 1930 he was nominated extraordinary professor of mineralogy and petrography but, suffering from tuberculosis, died in November 1931. During his grave disease the staff of this Chair was professionally supervised by Stanisław Małkowski (1889–1962), Radziszewski's friend from the State Geological Institute (Fig. 4), Professor of Free Polish College in Warsaw. The Chair of Mineralogy was also occasionally protected in this difficult period by Mieczysław Limanowski (1876–1948) (Fig. 5), professor of physical geography of SBU, an outstanding Alpine geologist and specialist in Quaternary geology, till 1924 employed at the State Geological Institute in Warsaw. Another eminent specialist in Quaternary geology employed as Assistant at the Chair of Geology of SBU was Bronisław Halicki (1902–1962) (Fig. 6), author of the doctoral thesis at the Jagellonian University "Diluvial glaciation of northern slopes of the Tatra Mts", published



Fig. 3. Paweł Radziszewski (1890–1931)



Fig. 4. Stanisław Małkowski (1889–1962)



Fig. 5. Mieczysław Limanowski (1876–1948)



Fig. 6. Bronisław Halicki (1902–1962)

in 1929. When working in Vilnius he prepared the qualifying dissertation “On the geology of basement of NE Poland. I. Sequanian and Cenomanian of northern Polesie region” at the Jagellonian University, published in 1935 (Czarniecki, 1964). Halicki

was an excellent academic teacher, lecturing from time to time even crystallography and mineralogy for students of pharmacy. In autumn 1939 crystallography was lectured by Antoni Łaszkiwicz (1904–1980), Associate Professor of the Warsaw University who as a talented polyglot was the only Polish lecturer teaching for a short period in Lithuania after transformation of the Vilnius University (Wójcik, 1983).

As follows from the above data, mineralogy, petrography and crystallography were taught at the SBU in Vilnius since autumn 1920. Radziszewski, being the founder of the Chair of Mineralogy and Petrography, was the first to employ and educate its specialistic staff. The first to obtain the M. Sc. degree under his supervision was Irena Kardymowicz (1899–1980) (Fig. 7) who prepared the thesis “Chemical composition of diorite from Hołyczówka in Volhynia”. His successive assistants (Antonina Jaroszewicz-Kłyszewska and Jan Wojciechowski) were promoted already by Stanisław Małkowski.



Fig. 7. Irena Kardymowicz (1899–1980)

#### STANISŁAW MAŁKOWSKI AND HIS SCHOOL

Stanisław Małkowski (Fig. 4) was born in Radzyń Podlaski on August 22, 1889 and graduated from secondary school in Warsaw. In 1907 he started to study at the Polish Free College but a year later moved to Cracow where at the Jagellonian University studied petrography and geomorphology under the direction of professors Józef Morozewicz and

Jerzy Smoleński (1881–1940), respectively. In the years 1911–1914, Małkowski was an assistant in the Chair of Mineralogy and Petrography of this University. After the outbreak of World War I he returned to Warsaw where was employed as teacher in the Courses for Adults. Simultaneously, in the years 1916–1921 Małkowski was an assistant at the Mineralogical Laboratory of the Warsaw Scientific Society lead by Professor Stanisław Józef Thugutt (1862–1956), an outstanding specialist in hydrothermal synthesis of minerals. At this laboratory he investigated the contact phenomena and mineralization in Jarmuta hill, Pieniny Mts. and, following his versatile interests and education, mineral composition of sand dunes as well as an experimental method of production of amorphous ice.

After the recovery of Poland's independence in 1919, the Polish Geological Institute was formed in Warsaw, whereby Józef Morozewicz, nominated its director, employed Małkowski as his talented pupil. Simultaneously Morozewicz and the Council of Philosophic Faculty of the Jagellonian University proposed Małkowski to pass the doctorate examinations but he resigned to do it. His idealistic opinion was that the most important task of a scientist consists in intense research work, whilst very time-consuming process of attaining scientific degrees is disturbing a real scientific progress of candidates. Moreover, Małkowski as a very modest man most probably did not like the "old-fashioned" medieval ceremony of doctor's promotion at the Alma Mater Jagellonica. This formal lack of doctor's degree was the reason of three-year efforts (1931–1934) of the authorities of the Stefan Batory University to employ Małkowski as its professor and head of the Chair of Mineralogy and Petrography and successor of his seriously ill friend from Cracow and Warsaw, P. Radziszewski, interested in similar scientific problems. Despite these difficulties, since 1931 he was caring for assistants of the Chair of Mineralogy and Petrography of SBU, continuing his own investigations and delivering lectures on mineralogy and petrography as Professor of the Free Polish College in Warsaw. It should be strongly emphasized that S. Małkowski, because of his broad specialization in different branches of petrography and mineralogy, was unquestionably the best candidate for the head of this Chair in Vilnius, the center of a region covered predominantly by Quaternary deposits. In 1934 he was already the author of about 70 publications. His most important geologic-petrographic papers were "Contact metamorphism and ore vein in Jarmuta near Szczawnica" (1921), "Andesites of the environs of the Pieniny Mts." (1921), "On geology of north-western corner of the Volhynian–Ukrainian massif" (1927), "On geology of the foreland of the

Volhynian–Ukrainian crystalline massif" (1931) and several publications on Volhynian kaolin deposits and their origin by the action of artesian waters. It should be emphasized that Małkowski in Polish petrology was the absolute pioneer of the idea of the metasomatic origin of granitoids, expressed after his observations of crystalline rock series in Finland. This genetic model in the third decade of the 20th century was so difficult to accept that Małkowski was not invited to participate as a guide in the annual meeting of the Geological Society of Poland in 1928 devoted to geology and petrology of Volhynian rocks. One of the evidences of his not only geological but also theoretical approach to this problem was Małkowski's attempts to present the results of chemical analyses of metasomatically altered rocks and minerals using the volumes and packing of ions. These materials were elaborated and supplemented in a joint publication by the first author (Małkowski & Narębski, 1967). Another problem studied by him in Volhynia was Neoproterozoic flood basalts in the Horyń river-basin (Małkowski 1926), recently investigated in detail by A. Białowolska, N. Bakun-Czubarow and Y. Fedorishyn (2002). Among Małkowski's papers devoted to Quaternary geology and petrography there were the results of his detailed investigations of dunes in the environs of Wągrów near Siedlce and of Szczakowa near Cracow, as well as of moraines of the Tatra glacier near Nowy Targ. He was also very interested in investigations of erratic boulders of Scandinavian origin. Moreover, Małkowski was known as the editor of the periodical "Service in Science" and an excellent popularizer of geosciences. He was able to unite two apparently incompatible trends: supporting national economy and protection of nature against devastation. At the State Geological Institute he organized a petrographic-mechanical laboratory investigating physical properties of rocks, and simultaneously the Commission for Protection of Inanimate Nature. To promote the activity of this Commission he started to edit the series "Monuments of Inanimate Nature".

When the opposition of clerks of the Ministry of Public Education was overcome, in June 1934 S. Małkowski was nominated Head of the Chair of Mineralogy and Petrography of the Stefan Batory University and remained in this post till the liquidation of this higher school on December 15, 1939. During the World War II period he was for some time employed as the head of the petrographic laboratory at the Lithuanian Geological Survey, simultaneously participating in secret educational activity. In the second half of 1941 Małkowski left Vilnius for his native Podlasie in the German-occupied Poland. During the Nazi occupation and after



1945, as the director of Museum of the Earth in Warsaw founded by him, he was still paying attention to scientific help to and promotion of his pupils. All the above mentioned virtues and the exceptionally noble personality of this outstanding scientist and master of education were univocally testified after his death on December 21, 1962 by his numerous coworkers and pupils (e.g., Wójcik, 1963; Kardymowicz, 1964; Łaszkiewicz, 1963; Narębski & Wójcik, 1973).

As already mentioned, Małkowski always felt responsible for the scientific instruction of his permanent and voluntary assistants of the Chair of Mineralogy and Petrography of the SBU. Two of them continued Radziszewski's and his own studies in Volhynia. The results of studies of Jan Wojciechowski (1906–1994) on zircons from Lower Cambrian rocks of the Holy Cross Mountains were published during Radziszewski's directorship in 1930. But the reports "Characteristics of granite from Hołyczówka in Volhynia" (1935) and "One of granite varieties from Hołyczówka in Volhynia" (1936), as well those concerning the studies of copper-bearing rocks in the Horyń river-basin and on traces of copper in basaltic tuffites in Hancewicze, Polesie region, published in 1939, indicate a constructive influence of the master on his hardly publishing but very diligent assistant. In 1937 Małkowski and Wojciechowski as co-authors published the "Report on preliminary results of studies of copper-bearing rocks in the Horyń river-basin". The results of these studies were summarized later by J. Wojciechowski (1971). It should be added that he was the only Małkowski's pupil employed in the years 1940–1945 at the Lithuanian Geological Institute.

Petrographic and chemical investigations of rocks of the Volhynian massif were the essential task of Irena Kardymowicz. Before 1939 she published 9 reports concerning crystalline rocks of the environs of Korzec, pegmatites, Hołyczówka diorite, kaolin deposits and some Volhynian minerals. The course and effects of these studies were summarized later by Kardymowicz (1971).

Several assistants and coworkers initiated detailed studies of Quaternary deposits of the Vilnius region. The first important papers on this subject were published after 1935 by Antonina Jaroszewicz-Kłyzyńska (later Halicka) (1908–1973) (Fig. 8) in "Starunia", a periodical of the Polish Academy of Arts and Sciences, entitled "On tills of Łysa Góra near Vilna". It was the first detailed petrographic characteristic of local Quaternary deposits, described by her in the methodical paper "Petrographic criteria in determining the age of glacial deposits", published in 1939 in "Wszecławiat". The task of the whole staff examining these deposits was formulated



Fig. 8. Antonina Halicka (1908–1973)

by S. Małkowski in the paper "The aim, methods and preliminary results of the study of rocks and minerals of the Vilnius region" published in 1937 in the periodical of the State Geological Institute "Posiedzenia naukowe PIG no. 48". The realization of Małkowski's scientific projects needed an increase of members of his staff at the expense of specialists from other departments. Consequently, it was necessary to divide each regular post into two or even three parts. Moreover, he succeeded in getting financial support for large-scale field works from the Fund of National Culture, Polish Geological Institute, Physiographic Commission of the Polish Academy of Arts and Sciences (Małkowski was its member) and other institutions. In effect, the staff was enriched, among others, by paleontologist Roman Kongiel (1904–1960) and geomorphologist Wincenty Okołowicz (1906–1979), and in field works were participating schoolboys interested in geosciences. Therefore, Małkowski could undertake a pioneer task – preparation of a petrographic map 1:100000 of the Vilnius region. It consisted in marking on it the outcrops of mineral raw materials (clays, sands, peats, etc.), but in connection with geological evolution of the area according to the above-mentioned methods of registration of rocks and minerals. Edward Rühle (1982, p. 658) in his paper on Małkowski's activities in geological mapping presents a list of most important publications on this subject:

1. Daszkiewicz-Korybut A., Matwiejówna L. 1937. Petrographic-registration works in the Świzciany and

Vilna-Troki regions. Posiedzenia naukowe PIG no. 48, Warszawa.

2. Dąbkowska I. 1937. Report on field works of peats in the Vilna region. Ibidem.

3. Jaroszewicz-Kłyszzyńska A. 1939. Report on detailed petrographic studies carried out in the Vilna region in 1938. Biuletyn PIG 13. Warszawa.

4. Kłyszzyńska A., Okołowicz W. 1937. Petrographic-registration works carried out in the environs of Druskieniki and Grodno. Posiedzenia naukowe PIG no. 48. Warszawa.

5. Kowalski M., Małkowski S. 1939. On mineral raw materials of the Vilna region. Biuletyn PIG 13. Warszawa.

6. Małkowski S. 1937. The aim, methods and preliminary results of registration of rocks and minerals of the Vilna region. Posiedzenia naukowe. PIG no. 48. Warszawa.

7. Małkowski S. 1937. Preliminary characteristics of sands and glauconite clays of northern Poland. Ibidem.

8. Małkowski S. 1946. Pleistocene petrographic problems. *Sturunia* 21. Cracow.

Among Małkowski's pupils there were also his Lithuanian co-workers – Valerija Čepulytė (1904–1987), Rimvydas Tarvydas (1928–1996) and others. Later they have continued the studies on the stratigraphic subdivision of Quaternary deposits of this region, petrographic examination of tills and fluvio-glacial deposits, following and developing the methods proposed by Małkowski (Gaigalas, 1972).

The results of complex studies of Małkowski's team from the Chair of Mineralogy and Petrography of SBU and his other coworkers were of considerable practical and theoretical significance and are highly appreciated until now (Gaigalas, 1972).

Prof. Stanisław Małkowski as an experienced and talented academic teacher initiated some special lectures as, e.g., "Introduction to mineralogy" for the first year stu-

dents, taking into account their rather poor preparation in this subject. Moreover, every year he changed the program and mode of presentation of his



Fig. 9: a) S. Małkowski with assistants, students and other persons in Huta Stepanska health resort. Standing from the left: Michał Kozłowski, Jan Wojciechowski, NN, Antoni Korybut-Daszkiewicz, Janina Marcinkiewicz, NN, NN, Jadwiga Wierzejska, Antonina Jaroszewicz-Kłyszzyńska, Barbara Olendzka, Stanisław Małkowski, priest Teodor Czaban (discoverer of native copper in Mydzc), Maria Szczerbińska, priest Aleksy Wujek, Valerija Čepulytė.

Sitting from the left: Roman Krajewski, Irena Kardymowicz, NN, Jerzy Gajewski, Mikołaj Redczyc. Phot. J. Wojciechowski. June 1935;

b) S. Małkowski with assistants and students at an outcrop of crystalline rocks in the Ślucza river valley (1936). Third from left A. Jaroszewicz-Kłyszzyńska, fourth S. Małkowski.

Note. The portrait photographs (Figs. 1–8) are from the Archives of the Museum of the Earth, Polish Academy of Sciences, Warsaw.

lectures, rendering them possibly interesting and taking into account the progress in geosciences (Kardymowicz 1964). Moreover, Małkowski was tending to form groups of more interested students, *e.g.*, those who engaged in growing crystals. He was a very exacting but simultaneously well-wishing and fair examiner. Besides, he was paying considerable attention to field excursions to classic geological areas, remembering the importance of his visits to Finland, which resulted in presenting already in 1927 the idea of the metasomatic origin of some Volhynian granitoids, accepted 50 years later by Ukrainian petrologists. Apart from several excursions to most interesting places in Poland (Fig. 9 a, b), he was able to organize a visit of 24 persons to the Italian volcanoes Vesuvius and Etna.

Stanisław Małkowski, being an outstanding individualist, respected this feature in other persons. He was allowing his coworkers and pupils to choose the subject and the methods of study, but later was demanding a honest and well documented elaboration of the problem. His scientific and moral attitudes were highly appreciated by his students and pupils who for many years tended to maintain contacts with their master (Łaszkiewicz, 1963; Kardymowicz, 1964; Wójcik, 1967; Jakubowski, 1986; Narębski & Wójcik, 1973).

Another aspect of Małkowski's personality was the initiation and promotion of the activities of lovers of geosciences. In 1932 he organized in Warsaw the Society of Museum of the Earth. After moving to Vilnius in 1934 he charged its administration to other people and organized its local section affiliated to the Chair of Mineralogy and Petrography of SBU. In Vilnius, Małkowski started since 1938 the publication of the periodical "Wiadomości Muzeum Ziemi" (Museum of the Earth News) popularising geosciences by means of interesting papers written by eminent specialists. Besides, he organized scientific meetings of this Society, during which lovers of geosciences could meet and listen to lectures of specialists in various branches. This was the realization of one of Małkowski's principal ideas: active participation of the public in the development of geosciences.

Everybody who was so happy as to contact or to cooperate with Prof. S. Małkowski will never forget his virtues expressed in a deeply human and serious approach to the role and duties of a scientist in present-day society, love of truth and knowledge, respect of other opinions and exceptional simplicity.

## EPILOGUE

The formation of mineralogic-petrographic schools at the universities of the former Polish-Lithuanian

Commonwealth was rather a common phenomenon. The first school was formed in the Russian University of Warsaw at the end of the 19th century by a Baltic German from the Dorpat University, Alexander Lagorio (1852–1925). Among the pupils of this outstanding petrographer we have to mention Józef Morozewicz, Zygmunt Weyberg (1872–1945), Georgij Wulff (1863–1926) and Stanisław Józef Thugutt (Wójcik, 1997). In the years 1904–1919 Józef Morozewicz grouped at the Department of Mineralogy of the Jagellonian University in Cracow several talented coworkers who later were heads of departments at various universities. The most eminent of them were Władysław Pawlica (1886–1910), Stefan Kreutz (1889–1941), Zygmunt Rozen (1876–1936), Paweł Radziszewski, Stanisław Małkowski and Czesław Kuźniar (1889–1955). Thus, the future professors of mineralogy and petrography of the Stefan Batory University had their roots in the Cracovian Morozewicz's school.

During the interwar period, several scientific schools were formed, *e.g.*, at the Jan Kazimierz University in Lvov by Julian Tokarski (1883–1961) and Zygmunt Weyberg, whose pupil Kazimierz Smulikowski (1900–1987) brought to life a group of well-known petrographers and geochemists at the Warsaw University. In Cracow, an important group of specialists at the Jagellonian University, lead by Stefan Kreutz, was represented by future professors of universities in Cracow, Warsaw and Wrocław Antoni Gawęł (1901–1989), Ludwik Chrobak (1896–1982) and Kazimierz Maślankiewicz (1902–1981).

Stanisław Małkowski as the founder of his own school had only six years to form it. Nevertheless, the results of his work were more effective than those of other eminent masters of geosciences, what was partly the merit of the outstanding predecessors Józef Łukasiewicz and Paweł Radziszewski, as well as of other professors and assistants of the Faculty of Mathematics and Natural Sciences of the Stefan Batory University. However, Małkowski himself perfectly prepared numerous pupils for scientific activity, if we take into account that 14 persons took part in the preparation of the petrographic map of the Vilnius region. After the World War II, about half of his assistants became professors in several scientific centres: Antonina Halicka and Irena Kardymowicz in Warsaw, Jan Wojciechowski in Łódź, and Valerija Čepulitė, Rimvydas Tarvydas and Lidia Matveyeva (1901–1985) in Vilnius. The others also played an important role in geosciences in different countries, including Lithuania. These facts confirm the veracity of the thesis that a good master can be recognized first of all after the success of his pupils.



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## Wojciechas Narębskis, Zbigniewas Wójcikas

## STANISŁAWO MAŁKOWSKIO MINERALOGINĖ IR PETROGRAFINĖ MOKYKLĄ STEPONO BATORO UNIVERSITETE

## S a n t r a u k a

Stanisławas Małkowskis Mineralogijos ir petrografijos katedrai Stepono Batoro universitete Vilniuje (Vilna) vadovavo 1934–1939 m. Pradžioje jis su bendradarbiais tęsė B. Rydzewskio pradėtus Voluinės kristalinių uolienų tyrimus. Jo iniciatyva čia buvo atliekami Vilniaus krašto kvartero nuogulų petrografiniai tyrimai, sudaromi petrografiniai 1:100000 mastelio žemėlapiai. Šiems darbams S. Małkowskis subūrė bendradarbių kolektyvą (apie 14 darbuotojų), kurių darbus finansavo Tautos kultūros fondas, Lenkijos Meno ir mokslo akademijos Fiziografinė komisija ir Geologijos institutas. Jis pirmasis Lenkijoje iškėlė Voluinės granitoidų metasomatinės kilmės originalią hipotezę. Per šešerius darbo Vilniaus universitete metus prof. S. Małkowskis suformavo savo mineraloginę ir petrografinę mokyklą. Po Antrojo pasaulinio karo beveik pusė jo buvusių asistentų tapo profesoriais ir mokslų daktarais, dirbo įvairiuose Lenkijos mokslo centruose, tarp jų ir Lietuvos kvartero geologijos tyrinėtoja habil. dr. Valerija Čepulytė bei doc. Dr. Lidija Matvejeva.

## Войцек Нарембски, Збигнев Вуйцик

## МИНЕРАЛОГО-ПЕТРОГРАФИЧЕСКАЯ ШКОЛА СТАНИСЛАВА МАЛКОВСКОГО В УНИВЕРСИТЕТЕ ИМ. СТЕФАНА БАТОРИЯ

## Р е з ю м е

Станислав Малковски заведовал кафедрой минералогии и петрографии в Университете им. Стефана Батория в Вильнюсе с 1934 по 1939 г. Вначале он с сотрудниками проводил исследования кристаллических пород Волыни, начатые П. Радышевским. По его инициативе начаты пионерские петрографические исследования четвертичных отложений Вильнюсского края, во время которых составлялись петрографические карты в масштабе 1:100000. Для этих работ С. Малковски создал коллектив научных работников (около 14 человек). Проводимые ими исследования финансировали Национальный фонд культуры, Физиографическая комиссия Польской академии искусств и науки, Геологический институт. Он первый в Польше выдвинул оригинальную гипотезу метасоматического образования Волыньских гранитов. Всего за шесть лет работы в Вильнюсском университете он создал свою минералого-петрографическую школу. После Второй мировой войны почти половина его ассистентов стали профессорами и докторами наук; они работали в различных научных центрах в Польше, среди них были знаменитый исследователь четвертичных отложений Литвы габилитированный доктор Валерия Чепулите и доцент, доктор Lidия Матвеева.