Post-war development of geography in Poland

Roman T. Gajda

Résumé de l’article

Ces notes témoignent de la vitalité et du dynamisme de la géographie polonaise d’après-guerre. Les chiffres fournis sont impressionnants, surtout si l’on songe à la rapidité avec laquelle la géographie polonaise est ressuscitée du néant où la guerre l’avait plongée. Aujourd’hui sept universités, sept écoles supérieures d’économie, un grand nombre d’écoles supérieures de pédagogie et d’universités technologiques dispensent un enseignement géographique spécialisé.

Comme dans la plupart des démocraties populaires, la géographie physique et la géographie économique font l’objet des plus actives recherches. La géomorphologie est une spécialité polonaise ; et c’est en Pologne que les recherches sur les problèmes du quaternaire et sur la géomorphologie périglaciaire connaissent leur maximum de développement. La géographie économique a été de son côté l’objet de recherches très poussées et originales, notamment dans les questions de régionalisation, problème auquel les organismes gouvernementaux des démocraties populaires attachent une énorme importance.

L’auteur note que la géographie polonaise a aussi ses points faibles, particulièrement en géographie des transports, en cartographie, en histoire de la géographie et, surtout, en géographie mathématique.

Bref, l’avenir de la géographie polonaise s’annonce brillant.
POST-WAR DEVELOPMENT OF GEOGRAPHY
IN POLAND

by

Roman T. GAJDA 1, 2

RéSUMÉ

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INTRODUCTION

In August, 1960, after the Geographical Congress in Stockholm, I visited Poland for the first time in 21 years since I left the country. Through the cordial cooperation of Dr. S. Leszczycki, Director of the Geographical Institute of the Polish Academy of Sciences, it was made possible for me during this brief sojourn to visit some geographical institutions and to discuss freely with Polish geographers many matters of interest. The purpose of this paper is to present a brief account of recent developments in the study of geography in a country where the discipline is considered to be best developed among socialist countries, with the possible exception of the Soviet Union. During my visit, which was a private one, I received a generous welcome from geographers and from people of every walk of life. This kind reception was in line with the highest tradition of international scholarship and with Polish hospitality. I am convinced that any scholar from Canada would receive a similar, or even warmer welcome, as Polish

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2 Presented at the eleventh Annual Meeting of the Canadian Association of Geographers, Montréal, 1961.
geographers have an apparent eagerness to meet Canadian geographers with whom they have had only occasional contacts since the war.

It would not be possible to cover in detail the many interesting aspects of the post-war development of geography, in Poland therefore, I will restrict myself to only the most important highlights.

Organization of Geographical Institutions

First in order to appreciate the tempo of post-war development, it is appropriate to touch briefly on the subject of the organization of geographical centres. With the outbreak of the Second World War, Polish geography centres practically ceased to exist. During the war years, much confusion prevailed and heavy losses of personnel and property were suffered by Polish geographical centres. It is enough to mention that some 50 scholars, active in geography were executed, died in concentration camps, or perished on the battlefields. This represented about half of the men who had been working in the field of geography before the outbreak of the war. Though underground university courses in geography were organized in Warsaw and Cracow, they were only periodic and incomplete. The period that immediately followed the war was therefore entirely devoted to the restitution and organization of scientific positions and the reconstruction of damaged or demolished buildings.

Gradually, at seven Polish universities, geography chairs were established, consisting of at least one chair of physical geography and one of economic geography. This task of organizing and coordinating scientific work in Poland was in charge of the United Geographical Society, an institution that has always played an important role in the development and advancement of geographical science in Poland. It is amazing that in spite of such tremendous losses, the geographical institutions began to develop so rapidly. Damaged or destroyed geographical centres were not only immediately rebuilt but also greatly expanded. Most of the geographical centres nowadays occupy much larger space than any of the geographical centres in Canada. Departments of geography in 1960 were organized at seven universities, at seven higher schools of economics and at higher pedagogical schools and technological universities. In 1953, a new and unique geographical institution was created, namely the Geographical Institute to the Polish Academy of Sciences, and regarded today as one of the best institutions of its kind in Europe. This institute was established as the main centre of scientific studies and research in geography.

In 1960, there were about 52 geography chairs in existence, of which 12 were devoted to physical geography, 17 to economic geography, 6 to regional geography, 4 to climatology, 3 to cartography, 2 to the history of geography, and about 8 to other branches of geography.

Scientific personnel reached a total of 82, consisting of 32 professors, 31 assistant professors and 19 lecturers. In addition, more than 23 assistants and about 80 technical personnel are now engaged directly in geographical work. The Geographical Institute of the Polish Academy of Sciences alone maintains
a staff or more than 100 persons. Faculties of geography at each university consist of between two and six departments, subdivided into various sections and laboratories, according to their specialization.

Organization of the Geographical Institute of the Polish Academy of Sciences

The Institute is headed by Prof. Dr. S. Leszczycki, Deputy Scientific Director Prof. Dr. K. Dziewonski, Scientific Secretary Dr. A. Kuklinski, and a Deputy Administrative Director. It includes 3 departments:

(a) Physical geography, with 5 sections and laboratories: i. geomorphology and hydrology of southern Poland; ii. geomorphology and hydrology of northern Poland; iii. general geomorphology; iv. climatology; v. physical geography of lakes. Three scientific stations, one at Hala Gasienicowa in the Tatra Mountains, the second at Wojcieszow in the Sudenten Mountains and the third in the Mazurian Lakes region, are administered by the Institute and are supporting research investigations conducted by the respective sections.

(b) Economic geography, consists of 6 sections; i. agricultural geography; ii. settlement and population geography; iii. industrial and transport geography; iv. world regional geography; v. economic regionalization; vi. bibliographical and information centre for geographical studies of economic regions.

(c) Cartography is divided into 3 sections and 4 sub-sections; i. economic cartography; ii. scientific documentation with sub-sections — bibliography of Polish geography, central cartographic catalogue, and geographical names and archives; iii. history of geography and cartography.

All the divisions have their established budgets and their heads have full authority and executive power delegated by the director to conduct geographical research based on uniform programmes. They have wide opportunities and support to work in a chosen field of specialization. In this respect, the morale of geographers is high and the working atmosphere excellent.

Other services include an editorial section with duplicating services and extension of distribution, 6 photo laboratories, an administrative bureau consisting of a financial division, a managing economic division and equipment division, a library, editing, acquisitions of publications, periodicals, cartographic collection and exchange division.

At present, the library collection consists of over 65,000 books, 19,000 periodicals, 1,750 atlases, 1,450 wall maps, 69,200 various maps, 958 aerial photographs, 115 micro-films, 40 photocopies and about 50 linguaphones for teaching of foreign languages. The exchange of publications is very well developed with about 90 Polish and 820 foreign institutions exchanging publications with the Geographical Institute.

The publications of the Geographical Institute include:

1. Polish Review, a quarterly scheduled to appear in the future only in English;
2. Geographical studies, a series of monographic papers;
3. Geographical Documentation (formerly Geographical Bulletin) bi-monthly in mimeograph form containing papers on actual studies and preliminary research results;

4. Review of the Foreign Geographical Literature, quarterly in mimeographed form containing translations of selected foreign literature characteristics of actual achievement in geography and reports on sojourns abroad of Polish geographers;

5. Various bibliographical publications on Polish and foreign references and catalogues.

Geographers in Poland represent one of the groups of scientists who are striving hard to establish new and closer relations with the western world and who are steadily gaining recognition abroad. Until 1954, their outside contacts existed only with the Soviet Union, and it was impossible for a Polish geographer to travel abroad. However, since the revolution in October 1956, the situation has changed considerably and many geographers are now taking part in various international meetings and conferences, and they also travel abroad individually more often and hope to continue so in the future. Contacts are being maintained and are steadily increasing with the German Federal Republic, France, Great Britain and more recently with the United States.

Thus, Polish geographers are successfully opposing pressure to restrict their contacts with the western world. At present, a comparatively substantial number of scholars and students are still going abroad on scholarships and fellowships of various kinds, such as Ford Foundation grants. Care is taken to send mature and talented scholars and students who are expected to make some contribution in their field of specialization. A few able Polish geographers, i.e., Drs. Winid, Kuklinski and Jahn were able recently to pay a brief visit to Canada and they are known to many Canadian geographers. On the other hand a number of American scholars but only two Canadian geographers, Dr. T. Lloyd and Dr. L.-E. Hamelin have been able to visit Poland. It seems to me that Canada certainly could make a contribution to this good cause by initiating contacts with Polish geographers.

Participation in meetings and conferences abroad, particularly in I.G.U. commissions, is regarded by Polish geographers as a very important function. In this direction, they are making considerable efforts, that have resulted in substantial contributions to geography. They are active in more than ten I.G.U. commissions and at present are in 5th place among the countries belonging to the I.G.U.

Two of these geographers are chairmen of commissions and another is a sub-commission chairman. Others are participating as ordinary or corresponding members.

As far as membership in international organizations is concerned, the Institute of the Polish Academy of Sciences represents Polish geography abroad and belongs to the following associations: Cornelli-Weltbund de Globusfreude; Cornelli-Weltbund de Globusfreude;

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3. At the last I.G.U. meeting in Stockholm, Dr. Leszczycki was elected chairman of the newly-established commission on « Methods of Economic Regionalization »; Dr. M. Klimezewski was elected chairman of the sub-commission on « Applied Geography ».
The basic school system in Poland covers 11 years and geography plays an important role, especially during the last 5 years of secondary school, comparable with our high school. Students completing secondary schools enter first year of university quite well trained in geography. The university professors therefore are confronted with the favourable situation of facing students who already have a basic knowledge of the physical and human aspects of geography and geographical methods.

The second feature to be stressed is that the faculties of geography at all universities are organized on a similar basis and the curricula, therefore, is comparable, although a number of universities specialize in different aspects of geography. As a rule, there are three major divisions in each faculty: 1. physical geography; 2. economic geography; and, 3. cartography. This pattern follows that which exists in the Soviet Union. It should be emphasized that economic geography is a term which is used in a much wider sense in Poland than in Canada. It is a compound concept embracing social geography and merges the human and economic aspects of geography. Another characteristic feature is that Polish geography eliminates from the sphere of its interests all subjects which, according to the belief of their geographers, are quite remote from the field of geography. For this reason, geopolitical geography, anthropology, geography of odours (scents) and medical geography are rarely a subject of geographical investigation or are completely ignored.

Within the framework of the three major divisions and their corresponding specialized subjects, students and graduates are encouraged to choose their particular field of interest and to become expert in a topical specialization. This policy has given rise to an ever-growing number of young specialists who are capable of undertaking competent studies in Polish as well as in foreign areas of research.

University Curriculum

The 5-year program introduced in 1951-52, and revised in 1953-54, is divided into 3 years of studies covering general subjects, and 2 years of specialized subjects. In spite of specialization, every student has an adequate grounding in all these specialties because they are included in the 3-year course of general subjects. The complete syllabus for the 3-year course consists of some 28 subjects including seminars and languages.

Following the general course, the program branches out into 7 specialization groups: 1. Physical geography; 2. Geomorphology; 3. Climatology; 4. Hydrology; 5. Economic geography of Poland; 6. World economic geography; and, 7. Cartography.
Accompanying the regular program is an extensive summer field work and training schedule during each of the five years of study. It includes practical exercises in topography, meteorology, geomorphology, hydrology, economic geography, pedagogy, and a number of field excursions.

After the completion of the five-year studies and the obligatory examination as well as preparation of a Master’s theses, a Master’s degree in geography is granted.

It should be emphasized that all Polish universities concentrate on teaching their own « Honour » students rather than acting as service departments for other specialties.

Postgraduate studies

One of the highest scientific degrees is that of a Doctorate in geographical sciences. In addition to special courses and examinations a doctoral thesis is required, which must be original work contributing to the science of geography. The thesis is prepared under a professor’s supervision. A Doctor’s degree may be obtained at all universities and also at the Geographical Institute of the Polish Academy of Sciences. At present the highest scientific degree is that of Docent for which the candidate with a Ph. D. must prepare an original scientific work without any supervision and is required to defend it before a body consisting of professors of geography and of other allied subjects.

Financial assistance to students

Support given to university students is outstanding. There is no admission fee and approximately 90 per cent of the students are fully maintained at the expenses of the State, receiving scholarships, living allowances and accommodation in students’ residences. They also receive free of charge all scientific supplies, books and stationery for their laboratory work. In addition, they also obtain all equipment, instruments and some of the personal clothing required for field work. All students have free medical and dental services. Of course this situation cannot be compared with pre-war conditions in Poland when students’ scholarships were completely inadequate and when students were obliged to cover all expenses connected with their education.

Employment of geographers

The program of geographical studies in principle is adjusted to the requirements of professional work and to the possibilities of employement in the field of geography. Needless to say, this system made possible the securing of specialists with a definite range of knowledge required by various institutions employing geographers. Since the introduction of the new system, many geographers (about one-third) have been engaged by various institutions, apart from schools which previously represented practically the only source of employment.
Nowadays, geographers are employed by academies, research institutions, geological, hydrological, meteorological and cartographical services, economic, planning and administrative offices, cultural and educational institutions, tourist's organizations and various State departments and ministerial offices. The enrollment of geographers at the university is, in principle, determined by the needs of society and the possibilities of employment. At present, all geographers gain employment after completing their academic studies.

**Geographical research**

In the many discussions and interviews I had with Polish geographers I was impressed by their knowledge of developments in Canada, as well as by the results of their achievements in the field of geographical research. During the past few years they have succeeded in greatly reducing the distance between Polish geographical science and that of the most advanced countries; they have been rapidly filling the existing gap which arose as a consequence of World War II. Though research projects are primarily adapted to the needs of the national economy and are often undertaken with a view to their direct application to a particular project, considerable research activities are directed towards the advancement of geography by deepening the scope of geographical research and by developing geographical theory as well as original methods, thus contributing to the foundation of the basis of geography as a whole. These achievements were made possible by awareness of the scientific progress in other countries and by the diversion of a great number of well qualified geographers into chosen fields of specializations. The implementation of the research program seems to lie with the Geographical Institute of the Polish Academy of Sciences which manages a large budget for research purposes and which distributes these funds to various geography departments for research studies, keeping in line with the program adjusted to national and international requirements.

Thus the Geographical Institute plays an important role in the development of geographical science, research activities and the promotion of scientific progress. It formulates the line of work to be undertaken in research centres, makes authoritative decisions, and, to a great extent, guides broad policy in geographical research, although the university departments are free to undertake their own research.

**Physical geography**

Within the branch of physical geography, geomorphology is the best developed field of research activities. Main research problems are divided into two groups: (a) problems concerning the mapping of geomorphological phenomena; (b) problems connected with the geomorphological processes. In the first group efforts are directed toward the preparation of a detailed geomorphological map of Poland by a method specially devised by Prof. M. Klimaszewski of the University of Cracow. This method, intended not only for scientific work but also for practical purposes, was reported at the meeting in Stockholm of the
Commission of Applied Geomorphology and it aroused considerable interest among geographers.

In the second group of problems, investigations are conducted in climatic geomorphology which now occupies a prominent place in world research in place of structural geomorphology. Research work on morphological processes is also being carried out abroad as a permanent Polish station at Spitzbergen has been in operation since 1956. This research is supplemented by laboratory experiments in dynamic geomorphology at Lodz University and by investigations in experimental geomorphology undertaken at laboratoires in Wroclaw, Poznan and Warsaw. Of special interest, are experiments conducted at the Warsaw University laboratory where an examination was made of forms resulting from the melting of dead and buried ice, as well as the accumulative action of glacier waters. During these experiments a reconstruction was made of many forms, such as kettles, outwash sediments, terraces, etc., found in the morainic zones of Poland.

Investigations of Quaternary problems occupies a prominent place in geographical research and has contributed greatly to the understanding of problems of glaciation and deglaciation, as well as to the methods applied particularly in the investigations of dunes, and to the theory of the formation of loess.

Studies in periglacial geomorphology are perhaps best known to American and Canadian geographers through the excellent publication Periglacial Bulletin. Following the tradition of the pioneer work of W. Lozinski who introduced the term «periglacial» some 50 years ago, periglacial studies are perhaps the best developed, judging from the number of publications that have appeared since World War II, and by their quality. Of special interest to American and Canadian geographers are the monographic work on the periglacial map of Poland the synthesis of periglacial morphology, comparative studies of pleistocene geology in Poland, and actual periglacial forms.

Hydrography and Hydrology

The second largest effort in physical geography is the preparation of a detailed hydrographic map, at a scale of 1:25,000, depicting all water phenomena, including description, measurements, and their genetic and chronological classification. The maps not only give the distribution of particular phenomena but show their relationship to other elements of the environment and thus also provide accurate hydrological characteristics of the surveyed areas. The practical value of the maps to agriculture, forestry, industry, and to the problem of water supply, sewage disposal and proper water management is obvious.

Other studies include the limnological research of lakes and their role in geographical environments; climatological research on micro-climate and local climate of industrial-urban centres, agricultural areas and health resorts; investigation on soil erosion, and cooperation in the preparation of soil maps, and finally some research in biogeography directed mainly towards the possibility of introducing selected plants to certain regions such as areas of inland dunes.
Economic geography

Economic geography is divided at present into several narrower disciplines, such as the geography of settlement and population, agricultural geography, geography of transport, etc.

In the geography of settlement and population, attention is being directed to the function of towns, the differentiation of the internal structure of its population, and to the relations between towns. The problems and role of small towns whose development is steadily declining are subject of particular research.

A considerable number of studies are being devoted to the historical geography of settlements, the distribution and structure of population, the analysis of the processes of settlement in the Recovered Territories of Poland, the migratory movement of population to towns, and the processes of urbanization. All these studies are directed towards the preparation of comprehensive monographs devoted to the geography of settlements in Poland.

Investigations in industrial geography are generally based on methods well known to Canadian geographers. Studies in this field have only developed in the latter part of the post-war period and have made less progress. The most important achievement of interest to geographers was the preparation of large industrial Atlas of Poland, very well executed and rich in content, but unfortunately still in a manuscript stage. It will not likely be published because of the existing restrictions on classified material.

The geography of transportation shows perhaps the least development in the study of economic geography. Only a few studies, rather popular in character have been made apart from some monographs on transportation in selected regions.

Investigations in agricultural geography deal mainly with the problem of preparing land use maps, and with the present utilization of the geographical environment. A very interesting method, perhaps one of the most detailed in existence, has been worked out for mapping land use features at a scale of 1:25,000. There are about 250 symbols, and a combination of patterns and colours to depict various features.

Other more recent studies in economic geography are conducted on methods of economic regionalization. In this field of investigation Polish geographers have succeeded in evolving their own methods, and these were presented at the 19th Geographical Congress in Stockholm, and resulted in the establishment of a new Commission on Methods of Economic Regionalization.

Cartography

The progress in this field is slow in contrast with the golden era of the famous Romer School of cartography, in pre-war days. Economic cartography is perhaps best developed at Lublin and Cracow Universities. The most important research work is connected with the preparation of the National Atlas of Poland which began several years ago.
Research on other fields of geography

The work in regional geography has been limited to a number of studies devoted to the Recovered Territories, and to the preparation of comprehensive monographs of economically backward sections of that area. Investigations in the regional geography of foreign countries have been hindered by limitations on travelling abroad. However, a number of monographs on Near East countries have been prepared, and work is in progress on a demographic atlas of the Sudan commissioned by Sudanese authorities. The history of geography is regarded as a less attractive field and is developing slowly. In historical geography the main emphasis is on studies of rural settlements in the different regions of Poland during various periods of history. In mathematical geography no research activities has yet been undertaken.

Applied geography is a flourishing field and is steadily and successfully developing along and within the other branches previously mentioned. The general trend is directed towards the welfare of the state and society, and is therefore connected closely with the development planning of the country as a whole. The specialization trend in geography has allowed for the concentration of research on a number of selected problems, a fact that has favoured the development of applied geography. In fact, geographers offer their services and actively participate in all the larger development projects and in forecasting future trends.

In commenting on the research activities of Polish geographers it should be stressed that their investigations and the accuracy of their work is considerably hindered by restricted access to large scale up-to-date topographical maps as well as to airphotographs. Much information not restricted by western countries is regarded as classified in Poland. New large scale maps, topographical, geological, hydrological, etc., are under strict security regulations, and as a general rule all maps up to a scale of 1:500,000 are classified. Thus geographers are forced to use pre-war editions of large scale maps and their papers have to pass through lengthy censorship regulations which may delay timely publications.

This unfortunate situation is viewed with great concern by Polish geographers and on many occasions has aroused protest, unfortunately without positive results. I recall with great pleasure the fact that during the Stockholm map exhibit Polish geographers succeeded in displaying a few new geomorphological and hydrological maps at a scale of 1:50,000. Considering this difficult situation and the high standard of their work they well deserve the status that they have achieved in many fields of their activities.

Future prospects

Geography in Poland has established its place among useful sciences, and its importance in the national economy is highly regarded by the public and by state authorities. There are many young and talented geographers, engaged in research at numerous geographical centres, who are publishing a substantial amount of the results of their investigations. These results are responsible for the allocation of substantial funds for scientific research, for the expansion of
geographical centres and for the establishment of new ones. The long-term fifteen year plan of development of geographical sciences calls for the establishment of new geographical centres at several provincial towns, the modernization of instruments and equipment at all geographical centres, and the provision of adequate transportation facilities. All the centres are to be equipped with calculating and duplicating machines, statistical calculators, photographic equipment and instruments, and geographical centres will enjoy the facilities of the central servicing office of the Polish Academy of Sciences on the permanent basis. The services will include the use of an electronic computer and the facilities of the printing within which a modern cartographical section will be responsible for the production of high standard geographical maps and illustrations intended for publication.

The present publication series will be maintained. A completely new publication connected with the organization work in the international field is proposed as an international quarterly which will be devoted entirely to economic geography.

With the progress of the development of research activities and the establishment of new geography centres it is proposed to gradually increase the number of personnel engaged in geographical work from the present 300 to about 600.

Research activities will gradually change from detailed analytical work of specialization to typological work and then towards concentration on the synthesis of various branches of geography and comparative studies. The end product of all this work will be the synthesis of Polish Geography.

Polish geography has recently been facing the problem of expanding its research beyond its frontiers; this task is a difficult one as there are many obstacles, mainly of a financial nature. In spite of difficulties, a good start has already been made. Attention is given to the increase of contacts with eastern countries; more efforts however at present are made to establish and expand contacts and cooperation with western countries, primarily with the U.S.A. and Canada. Research studies are continuing in order to improve methods of investigations, to devise new methods and to strengthen the theoretical basis of geography. In these directions the activities of Polish geographers are concentrated more and more thus paving the way for wide international recognition of their achievements and contributions to geographical science. The broad planning related to the practical economy of the country, the high esteem given to the profession of geography and the support given by the State to geographical research, indicates that the position of Geography in Poland is strong and its future bright.