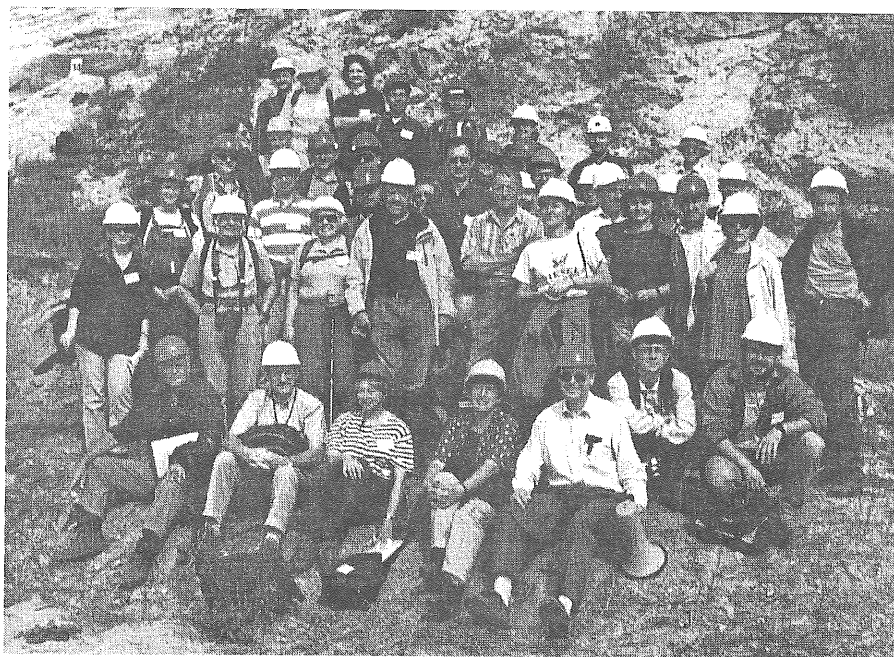


periglacial environments. Particular fruitful appeared discussions stimulated by symposium excursions. The results of studies conducted in Łódź were presented in the field: I. in the edge zone at the Łódź Plateau where the role of periglacial morphogeny is the best recognized, where it stood the best of time and have model value; II. at opencast mines in Koźmin, where the infill of the Warta River valley fashioned under periglacial conditions was demonstrated; III. At the Bełchatów opencast mine, where participants studied sediments of periglacial environment from Pleistocene deposits.

*Organizers of the Symposium*



*Photo by A. Czech 1999*

Group picture of the participants of the Łódź Periglacial Symposium 1999 during the field excursion in the Koźmin opencast mine

*Note from the Editor:* because of the technical reasons some papers dealing with the Symposium will be published in the next volume of *Biuletyn Peryglacjalny*.

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THE UGI PERIGLACIAL COMMISSION  
AND ITS ROLE FROM 1949 UNTIL 1980

The formation of a periglacial Commission during the first Geographical Congress held after the war (Lisbon, 1949) was a consequence of the sudden awareness of the importance of climatic geomorphology. It seemed clear that the majority of the superficial deposits that are found in temperate countries, were formed during the cold Pleistocene periods and that the morphology was deeply shaped by periglacial processes.

The chairman of the first commission was HANS W:SON AHLMANN (Sweden), a great glaciologist who was working as assistant with Prof. DE GEER. However he worked on other problems than the geochronological analysis of varved sediments, mainly on the geomorphological development of Sweden.

I found few information on the activity of this first Commission which had as secretary, A. CAILLEUX (Paris) and as members FLINT (Yale), GUILCHER (Nancy) and LEWIS (Cambridge). The explanation for the low level of activity of the Commission is probably that the president, AHLMANN, became Ambassador of Sweden to Norway in 1950. He came back to science as a very active Emeritus Professor in 1956 and was then nominated President of the I.G.U. during the Rio Congress .

In 1952, after the Congress of Washington, A. CAILLEUX became the chairman of the Commission. Before his appointment, he did many and various studies on the periglacial environment. His thesis (1942) on periglacial eolian action in Europe was one of the first works which demonstrated the importance of periglacial processes during the Quaternary. He went to Greenland in 1948 where he focused his research on periglacial phenomena. He made the first field experiments to study periglacial processes in high mountains.

In that second Commission, scientists from eleven countries were ordinary or corresponding members. One important objective of the programme was to realize maps of present-day and fossil periglacial phenomena. But the Commission had also other interests. It was concerned

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with field and laboratory experiments, made to understand the geomorphic processes. It decided to work on a glossary of periglacial terms and wanted to collect for the Rio Congress (1956), analytical bibliographies of periglacial works in as many countries as possible. The report of this Commission, which was published in *Biuletyn Peryglacjalny* no. 4, 1956, brought to the fore the state of periglacial researches in fourteen different countries.

It is during that period that the first number of the *Biuletyn Peryglacjalny* was published. This journal played a very important role during the following decades and probably influenced the choice of J. DYLIK as the new chairman of the Commission. In 1949 J. DYLIK and his collaborators made the first discoveries of periglacial inheritance in Central Poland. Later, they worked on a subject catalogue of typical periglacial structures and on the diversity of periglacial processes (e. g. gelifluction, slope wash, and wind) that they found in the same sector, trying to show the action of each on the landscape. They were aware of the prevailing importance of the periglacial environment as it appeared in the editorial of the first issue of the *Biuletyn Peryglacjalny* where J. DYLIK wrote that the geological and geomorphological effects of this environment 'might' have exceeded even those of glaciation. This seems to be confirmed by the magnitude of periglacial transformations as well as by their spatial extent which by far exceeded that of the Pleistocene continental glaciations. Hence, there seems to be some truth in the view that the study of the Pleistocene enters upon a new evolutionary phase which is only comparable to the one that saw the birth of the idea of continental glaciation".

I received my diploma of 'licencié en géographie' in 1952 and I remember that in my country and, also in France, geomorphologists were deeply convinced that the morphology of our countries was the result of periglacial processes. We did not know well these processes but we were convinced that they were very dynamic. For example, in France the thesis of TRICART was an important benchmark as it showed the existence of 4 periglacial infillings in the valleys of the Bassin of Paris. They were explained as the results of the 4 periglacial periods related to the 4 glaciations known at that time. Some of these important infillings were never observed later!

In 1958, the working programme of the Commission was published by DYLIK and RAYNAL in the *Biuletyn Peryglacjalny* no. 6. It was a report of knowledge and gave indications of the directions in which researches should go. The domains were 1) cartography of periglacial phenomena, 2) the study of processes, 3) regional problems for climatic reconstructions. I have not enough time to discuss all the implications of this programme but it indicates that DYLIK and RAYNAL wanted to extent the research to all periglacial environments and all periglacial processes. In

this paper, the heads of the Commission clearly wanted to structure periglacial researches and they wrote 'Nous voudrions éviter les présentations fortuites (au congrès de Stockholm) qui ne se rattacheraient pas aux initiatives de la Commission'. I believe that DYLIK and RAYNAL discovered later, as all the Chairmen when they were in charge, that the possibilities of the heads of the Commission are limited and that they cannot really control research.

It may be interesting to compare this programme with the results which were given by J. DYLIK in 1972 in a very concise presentation of the work of the Commission after 16 years (IGU Bulletin, 1972/1).

The first and the most important result that he mentioned was, and I think he was right, the 15 periglacial meetings which were organised. Bringing periglacialists together in the field and giving them the opportunity for seeing, in good conditions, the periglacial phenomena (e. g. prepared sections, demonstrations by those who did the research, field-books, and discussions by other scientists) was an exciting enrichment for all participants. These meetings were devoted not only to fossil phenomena but also to present-day phenomena: Abisko, 1960, Alaska, 1965, Siberia, 1969.

The other results mentioned in that 1972 report are the publication of 22 numbers of the *Biuletyn Peryglacjalny*, which was the official publication of the Commission, the animation of periglacial investigation, discussions on terminology and collaborations with other Commissions. The achievements are impressive and, for a great part, the result of the work of J. DYLIK. The role of the Commission was great although the ambitious initial programme given at the beginning could not be carried out.

During those years, the progress of research and especially the field-works made in present-day cold countries, demonstrated that periglacial processes are not so quick or so efficient as people believed in the fifties. I shall give only one periglacial observation: on Prince Patrick Island (Canadian Arctic), in 1966, I took a picture on a sandy steep slope where the marks of my feet are still clearly visible 13 months after I came there! And periglacial, which was the main research subject in geomorphology of the temperate countries, was declining. In 1972, in the Congress of Montreal, the question arose: does the periglacial Commission go on after 23 years of activity?

Finally, the Commission disappeared in Montreal, but a working group was set up under the title of "Co-ordinating Committee for Periglacial Researches of I.G.U.". I was in charge of this new working group on the proposal of J. DYLIK probably for the reason that I was interested in a variety of periglacial problems. I had worked in Belgium on relict periglacial phenomena, in the Canadian Arctic, in the Alps on the present-day

features, and I was doing experiments in the field and in laboratory. To involve as many scientists as possible in the working group, subgroups were set up as written in the IGU bulletin nr 28/2. Some of these groups supplied reports which were later published in *Biuletyn Peryglacjalny*.

But the most important result of this working group was still to give the periglacialists the possibility of discussing together. Meetings in the field were organized in Wales, 1975, and during the period 76–80 in Belgium and the Netherlands, 1978, Lapland, 1979 and Hokkaido 1980.

In 1980 during the Tokyo Congress, in relation with the activities of the Working Group a new Commission was created under the responsibility of HUGH FRENCH. It went by the deliberately ambiguous name of the 'Commission for the significance of periglacial phenomena'. Under that name, all aspects of periglacial research remained within the domain of the Periglacial Commission.

Finally, it is not easy to show all the achievements of the IGU Periglacial Commissions and Working Group after 31 years of activities. Who is able to say what would have been different without the existence of these Commissions? It is clear that the need of exchanges and meetings was so great that without the existence of our Commission, probably another Association would have organised a similar scientific group. One of the roles of the chairmen was to promote field meetings which were of interest to everybody. After a few years in the exercise, it seemed obvious to each head of the Commission that it was impossible to prescribe new tasks to other scientists and to change the orientation of their research, although many scientists were always happy to be members of a Commission, it does not imply that they were also ready to work hard for the accomplishment of a programme. The capacity of any chairman is limited by the good will of the other researchers. If you consider this reality, it is obvious that the achievements of the IGU Periglacial Commission between 1949 and 1980 was significant although it is difficult to grasp all its different aspects.

LIST OF MEMBERS OF PERIGLACIAL COMMISSIONS  
AND LIST OF PERIGLACIAL MEETINGS FROM 1949 UNTIL 1980

**Between 1949 (Lisbon) and 1952 (Washington)**

Chairman: HANS W. AHLMANN (Sweden)

Members: A. CAILLEUX (S) (Paris), R. F. FLINT (Yale), A. GUILCHER (Nancy), W. V. LEWIS (Cambridge).

**Between 1952 (Washington) and 1956 (Rio)**

Chairman: A. CAILLEUX (France) Members: H. W. AHLMANN (Sweden),

C. H. EDELMAN (The Netherlands), R. F. FLINT (USA), G. NANGERONI (Italy), J. TRICART (France)

Corresponding members: A. E. CORTE (Argentine), L. C. PELTIER (USA), H. POSER (Germany), B. W. SPARKS (U.K.), R. TAVERNIER (Belgique), T. TSUJIMURA (Japan)

**The periglacial Commission between 1956 (Rio) and 1960 (Stockholm)**

Chairman: J. DYLIK (Poland)

Members: R. RAYNAL (S) (France), L. E. HAMELIN (Canada), K. K. MARKOV (USSR), G. NANGERONI (Italy), H. POSER (Germany)

Corresponding members: AB'SABER, BULLA, CAILLEUX, CORTE, FITZPATRICK, FURRER, JAHN, JENNINGS, KOBAYASHI, MAARLEVELD, MACAR, MARECHAL, ORIOL RIBA, SOLÉ SABARIS, TAVERNIER, TE PUNGA, TRICART, WASHBURN, WICHE

Periglacial meetings: Poland (September '58) (DYLIK), Belgium (June '59) (MACAR), Marocco (October '59) (RAYNAL)

**The Periglacial Commission between 1960 (Stockholm) and 1964 (London)**

Chairman: J. DYLIK (Poland)

Members: RAYNAL (S) (France), BLACK (USA), CAILLEUX (France), HAMELIN (Canada), MARKOV (USSR)

Corresponding members: BULLA, CAPELLO, CORTE, DYLIKOWA, JAHN, JENNINGS, KADAR, KOBAYASHI, MAARLEVELD, MACAR, MENSING, NANGERONI, PESCI, PÉWÉ, POPOV, SOLÉ SABARIS, TRICART, WASHBURN, WATERS, WICHE

Periglacial meetings: Abisko (1960) (RAPP), Poland (INQUA Congress, 1961) (DYLIK), Hungary and Austria, (1964) (PESCI and WICHE)

**Between 1964 (London) and 1968 (New Delhi)**

Chairman: J. DYLIK (Poland)

Members: RAYNAL (S) (France), CAILLEUX (France), HAMELIN (Canada), MARKOV (USSR), PÉWÉ (USA)

Corresponding members: ALEXANDRE, BLACK, BÜDEL, CAPELLO, COOK, CORTE, DYLIKOWA, FINK, GALLOWAY, GRAVE, GULLENTOPS, HOPPE, IVES, JAHN, JENNINGS, KADAR, KOAZE, MAARLEVELD, MACAR, MELVIN, MENSING, MORARIU, NANGERONI, NISHIMURA, PESCI, PISSART, POPOV, POSER, RAPP, MACKAY, SOLÉ SABARIS, SEKYRA, ST-ONGE, TRICART, WATERS, WASHBURN, WICHE, WIELITCHKO

Periglacial meeting: U.K. (UGI Congress 1964) (WATERS), Alaska (with INQUA, 1965) (PÉWÉ), Pologne (with Slope Commission, 1967) (DYLIK, JAHN, KLIMASZEWSKI)

**Between 1968 (New Delhi) and 1972 (Montreal)**

Chairman: J. DYLIK (Poland)

Members: RAYNAL (S.) (France), MACKAY (Canada), MARKOV (USSR), WASHBURN (USA), WATERS (UK)

(No list of corresponding members)

Periglacial meetings: Yakutia (with INQUA, 1969) (MARKOV, MELNIKOV); The Netherlands (1970) (MAARLEVELD); Belgium-France (with commission on Present Day Geomorphological Processes, 1971) (PISSART - JOURNAUX)

**The Working Group "Co-ordinating Committee for Periglacial Research of I.G.U."****Between the 1968 (Montreal) and 1972 (Moscow)**

Chairman: A. PISSART

Secretary: E. WATSON

Co-ordinators: lab. experiments: WASHBURN and JOURNAUX; field experiments: MACKAY; fossil periglacial phenomena: DYLIK (died on June 7 1973), DYLIKOWA, MARKOV; regionalization of periglacial: RAYNAL, permafrost: GRAVE

Periglacial meetings: Yakutia, (1973) (IPA Congress), Wales (1975) (WATSON)

**Between 1976 (Moscow) and 1980 (Tokyo)**

Chairman: A. PISSART

Secretary: E. WATSON

Co-ordinators: laboratory experiments WASHBURN and JOURNAUX; field experiments: MACKAY and FRENCH fossil periglacial phenomena: DYLIKOWA and MARKOV; regionalization of the periglacial: RAYNAL; permafrost: GRAVE; remote sensing and fossil periglacial phenomena: SVENSSON; permafrost map: R. BROWN and FERRIANS; depth of contemporary ground frost: MAARLEVELD; lower limit of periglacial phenomena: J. HAGEDORN; terminology: R. BROWN and KUPSCH

Periglacial meetings: Birmingham (INQUA Congress 1977); Belgium-Netherlands, (1978) (PISSART and MAARLEVELD); Lapland, 1979 (AHLMANN, SVENSSON and SEPPÄLÄ); Hokkaido, (1960) (ONO)

HUGH M. FRENCH\*

Ottawa

**FROM HEROIC EXPEDITIONS  
TO MODERN FIELD PROGRAMS  
IN PERIGLACIAL ENVIRONMENTS****Abstract**

Some of the earliest observations upon periglacial processes and phenomena were made by the European explorers of the vast subarctic regions of North America and Eurasia. Later, expeditions in search of the North and South Poles provided the opportunities for further observation. The records of these early traders and explorers contain casual, opportunistic and largely non-scientific information. The real growth in periglacial field programs in high latitudes commenced after the Second World War. Today, modern programs usually operate within the context of sophisticated, usually government-backed, logistical organizations. In recent years, and in response to world economic conditions, oil and gas companies and other resource extraction industries provide medium-term opportunistic logistics.

**HEROIC BEGINNINGS**

In the English-language literature the earliest observations upon periglacial processes and phenomena were casual, opportunistic, and largely non-scientific. They were made by the European explorers of the vast subarctic regions of North America. For example, the employees of the Hudson's Bay Company, and those who traded with them, frequently made observations related to the terrain over which they traveled. Thus, a Capt. CHRISTOPHER MIDDLETON, F. R. S., Commander of His Majesty's Ship *Furnace*, reported in 1741-42 (MIDDLETON, 1743) upon ...'The Effects of Cold; together with Observations of the Longitude, Latitude and Declination of the Magnetic Needle, at Prince of Wales' Fort, upon Churchill River in Hudson's Bay, North America'. In Alaska, frozen ground was first mentioned by OTTO VON KOTZEBUE as he moved through the Bering Strait (KOTZEBUE, 1821). Following GEORGE BACK's Journey through what is now northeast Keewatin in 1833-34, Dr JOHN RICHARDSON, the physician who accompanied FRANKLIN's Journeys of 1819-22 and 1825-27 to northwest Canada, summarized his sporadic

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