PERSONAL PROFILE

Richard Sinding-Larsen

New IUGS Secretary General —

Richard Sinding-Larsen, the new Secretary-General of IUGS, is a very hard man to catch, for he is a tireless traveller on the international geoscientific scene, coordinating, directing or helping to breathe life into COGEODATA training courses, Unesco committees, national geological projects, and now the whole broad range of IUGS activities. On his recent return to Trondheim from a visit to Latin America, the U.S. and Canada, followed by a side-trip to Indonesia, he found time to answer some questions put to him by Episodes.

How did you first become interested in geology?

When I was about sixteen, I started to climb the mountains around Oslo, and with the Permian Rift and many basalt flows in this area, I rapidly became interested in geology. At first my aim was to decide whether or not the rock would break. A loose conglomerate could be very hazardous, and I never felt really safe until I reached the rhomb porphyry. It was here, on the steep mountain of Kolsaas, that an excursion led by the late Professor Christopher Oftedal started my interest in formal studies in geology.

Can you outline for our readers your career to date?

My university studies started in Genoble, France, where I tried to reconcile my interests for mountain climbing with those for geology and mathematics. Before long I made my choice and decided to become a geologist. After a year working in the coal mines of Spitsbergen, I transferred to the Norwegian Institute of Technology in Trondheim, to study in its newly established section on applied geology.

After graduating in economic geology, I joined the Geological Survey of Norway, first as a geochemist and later as head of its data and systems group. In 1978, I returned to the Department of Geology at the Norwegian Institute of Technology, where I currently hold a position as Professor of Economic Geology.

What drew you to the field of data management?

The massive amount of data I encountered when I started to work at the Geological Survey of Norway sparked my interest, purely as a matter of survival. This was at the time when systems for recording field data were being developed, such as the Swedish GEOMAP and the French SIGMI. My interest in mathematics here blended with geology, and I plunged into the field of data management. In 1974, William Hutchison, then Chairman of COGEODATA and now President of IUGS, asked me to join a working group on geochemical data management, and in 1976 I succeeded him as Chairman of COGEODATA.

Since then COGEODATA has come a long way. We now face not so much the problems of managing data, but how best to use them quantitatively to assess and study geological processes. This trend has led to COGEODATA becoming involved in disciplines like mineral exploration, resource assessment for minerals and energy, and the building of data bases.

I foresee a great increase in the quantitative modelling of geological processes. In short, we are moving from the descriptive phase to the quantitative modelling of geological concepts.

As past-chairman of COGEODATA, you must have encountered the view that the rush to computerize is a harmful side-track for scientific groups in many developing countries. How do you answer this?

Many people do believe that geology in developing countries should be conducted differently from that in industrialized nations. But many of the data-gathering processes are the same. A satellite photo of Africa is no different from a satellite photo of Norway, and the developing countries need equipment just as advanced as we do for interpreting their imagery.

Of course, to implement this technology requires different approaches in different countries. Without telecommunications it is not a good idea to build a centralized computing center where remote data entry and remote processing are required. On the other hand, personal and mini-computers seem to provide a solution which will favour the introduction of computerized methods in developing countries. Now, with little extra equipment than perhaps an electric generator, you can process your data and interpret gravity or magnetic patterns on site, without depending on many of the other things which make the difference between the developed and developing countries.

COGEODATA's task is to inform potential users that if they have adequate software in personal computers, the same interpretive procedures which are performed in North America can be carried out in a developing country. COGEODATA is thus concerned not with technology transfer itself, but rather with the transfer of the knowledge base needed to put this technology to use for the benefit of scientists in developing countries.

Much of your work has been on the application of science and technology. How do you see the balance between basic and applied research, and where should IUGS fit in this spectrum?

Traditionally, IUGS has been a Union where fundamental problems like that of the time scale have been studied, and in the past IUGS has recruited most of its scientists from the field of basic research. Applied research to show how basic work can ultimately be of practical use has not been so well represented. I hope that the Union will be able to couple research in both areas, encouraging basic research, but also showing how the geological sciences can be applied, for example, in the search for mineral resources which are needed for the development of society.

The IUGS Secretariat is now based in Trondheim. How will the engine that will drive IUGS for the next five years function?

The IUGS Secretariat was transferred from Paris after the Moscow Congress. It is now located in one of the new buildings of the Geological Survey of Norway and receives support from the Norwegian Science Foundation and other branches of government.

Mrs. Hanne Refsdal is the new Executive Secretary. Her background as an architect is proving of great help in

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dis-entangling the different "building blocks" of the IUGS commissions, subcommissions, committees, working groups, advisory boards, and affiliates. The Norwegian Geological Survey staff in the printing, computer and geochemical divisions are all actively supporting the secretariat in its operation. We all look forward very much to having members of the IUGS family visit us in these northern premises.

Finally, what are your own hopes for IUGS in the years ahead?

I hope that during the next five years IUGS will become more widely known than in the past. When I am told that most North American geologists haven't even heard about IUGS, I get very frustrated. Increasing visibility will, I hope, be achieved through programs which are important for the advancement of the geological sciences. With such

activities, as well as by participation at major scientific meetings, IUGS should become recognized as the international geological organization which can best transmit new ideas from one continent to another, and most effectively promote cooperative research on problems otherwise neglected because of lack of geological examples or facilities for studying them.

IUGS should also, in the coming years, assume its role as an international geological adviser not only to its present cooperative partners like Unesco and ICSU, but also to organizations like the World Bank, UNDP and others involved in the earth sciences. Of course this is now only a vision, but let us hope that by 1989 it becomes a reality!

PERSONAL NOTES

The IUGS Subcommission on Permian Stratigraphy at its recent meeting in Moscow elected as Chairman - Sheng Jin-Sheng (China), Vice-Chairman - J.M. Dickins (Australia), and Secretary - Jin Yu-Gan (China). In addition there are 16 titular (voting) members and 62 corresponding members.

Jamleck Wachira, Chief Geologist of the Kenya Department of Mines and Geology, is the new project officer for the Geological Liaison Office of the Commonwealth Science Council, London. He succeeds Kate Gass, and is the first African to hold this important post for the developing countries of the Commonwealth.

The Commonwealth Committee on Mineral Resources and Geology, made up of directors of Commonwealth geological surveys and which for many years ran the Liaison Office, decided at its recent meeting in August to reconstitute itself as the Commonwealth Geological Surveys Consultative Group to advise the Commonwealth Secretariat in its mineral resources and geology program and to act as contact point in member countries for mineralogical and geological issues.

New officers of INHIGEO, the IUGS Commission on the History of Geology, elected in Moscow are G.Y. Craig - President (U.K.), E. Dudich - Secretary General (Hungary), V.V. Tikhomirov - Vice President (U.S.S.R.), T.G. Vallance - Vice President (Australia), and R. Hooykas - Past President (Netherlands). Other members are A. De Cailleux (France), G.L. Davies (Ireland), G.K. Georgiev (Bulgaria), M. Guntau (G.D.R.), A.S. Kleczkowski (Poland), W. Langer (F.R.G.), J.M. Lopez de Ascona (Spain), G. Regnell (Sweden), J. Urban (Czechoslovakia), X. Xiangrong (China), U.B. Marvin (U.S.A.), and H. Masson (Switzerland).

Dr. Kathryn Sullivan, first woman geologist into space, on the U.S. space shuttle mission launched successfully in October 1984.

To Prof. Jorn Theide of the University of Kiel (F.R.G.), the Steno Medal of the Geological Society of Denmark for important contributions to the geological sciences.

Memorials —

Masao Minato (April 1984): Professor Emeritus in the Department of Geology and Mineralogy, Hokkaido University, Japan. One of Japan's most prominent geologists and a world authority on corals.

John Haller (May 1984): Professor of Geology at Harvard University, well known for his major contributions to the geology of Greenland and to the comparative tectonics of the circum-Scandic Caledonides, North American Cordillera, and Alpine-Himalayan systems.

George Gaylord Simpson (October 1984): Former Professor at the University of Arizona. World renowned paleontologist, recipient of numerous awards and medals for his scientific work from the U.S.A., Belgium, France and the U.K. Prolific writer and researcher on recent and fossil mammals, the Early Tertiary of the Americas, penguins, evolution, genetics and biology.

LIST OF ABBREVIATIONS

(aside from those identified in the text or in Directory of IUGS Bodies)

BIRPS	British Institutions Reflection Profiling Syndicate
CNRS	Centre National de la Recherche Scientifique
COCORP	Corsortium For Continental Reflection Profiling
COSPAR	ICSU Committee on Space Research
COSTED	ICSU Committee on Science and Technology in Developing Countries
CPCEMR	Circum-Pacific Council on Energy and Mineral Resources
EGT	European Geotraverse
GARS	Geologic Applications Remote Sensing
GRDC	Geological Research and Development Centre (Indonesia)
IAVCEI	International Association of Volcanology and Chemistry of the Earth's Interior
ICSU	International Council of Scientific Unions
IGBP	International Geosphere/Biosphere Program
SCAR	ICSU Scientific Committee on Antarctic Research
WOVO	World Organization of Volcano Observatories