

Special Issue on “Geography in the World” for the IGU (International Geographical Union) Kyoto Regional Conference 2013

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I. Introduction

From August 4th to 9th 2013, the “IGU Kyoto Regional Conference 2013,” (hereafter “Kyoto Conference”), will be held at the Kyoto International Conference Center in Kyoto. With the IGU as the parent organization, more than 1,000 researchers and graduate students from all over the world are expected to participate. A research conference of this size for geographers has not been held in Japan for 33 years since the 24th International Geographical Congress in Tokyo in 1980.

It was decided at the IGU General Assembly held in Tunis in August 2008 to hold the regional conference in Kyoto. Organized by the National Committee of Japan for the IGU, the Science Council of Japan has been added as a joint sponsoring organization. In August 2010, the Organizing Committee of the IGU Kyoto Regional Conference 2013, which plays a major role in promoting preparatory activities, was inaugurated. The Tokyo Geographical Society is also participating in planning as a joint sponsoring organization, carrying out preparatory activities and providing financial support.

The main theme of the Kyoto Conference is “Traditional Wisdom and Modern Knowledge for the Earth’s Future.” Regarding the main subject, according to the Organizing Committee, more than 1,000 research presentations are expected to

be given on geography from a cultural perspective on the dynamics of economic spaces, global transformation and population flows, geographic information science (GIS), biodiversity, natural disasters, land use/land cover change (LUCC), land degradation and desertification, sustainable agricultural systems, geo-parks, geography education, the Geography Olympiad, water sustainability, and others. In addition to general research presentations, a diverse program of special lectures, commissioned sessions, academic exhibitions, corporate exhibitions, excursions, and field trips, as well as public citizen lectures are being prepared. In April 2013 a special postage stamp will also be issued.

II. Activities of the IGU

Geographers from around the world met for the first time in one place at the conference in Antwerp in 1871. Subsequently, ten conferences were held at various locations across Europe and the United States before the IGU was established in Brussels in 1922, after which a regular schedule was introduced. Since then, the International Geographical Congress (IGC) has been held every four years, with Regional Conferences, such as the Kyoto Conference, being held in the intervening years. In 1957, Regional Conference was held in Tokyo and Nara, Japan, with 422 participants from 20 countries. In 1980, 1,710 persons from more than 100 countries attended

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the 24th IGC in Tokyo. In recent years, the 30th IGC in Glasgow had 1,700 participants, the 2006 Regional Conference in Brisbane attracted 1,200 attendees, and 1,240 persons attended the 31st IGC in Tunis in 2008. Besides, the 2010 Regional Conference in Tel Aviv brought together 500 participants and the 2011 Regional Conference in Santiago de Chile attracted 900. In August 2012, the 31st IGC was held in Cologne. Interest in the Cologne Conference has been very high, with 2,817 scientific papers submitted from all over the world, of which 1,772 were accepted after careful review.

Research activities within the IGU are organized by commissions—or so-called research committees. Currently, there are 38 commissions for different topics. In addition, task forces have been put in place to focus on limited topics, starting with the Geography Olympiad and mega-cities.

The IGU is a member of the International Council for Science (ICSU), an international organization involved with the natural sciences. Furthermore, it participates in the International Social Science Council (ISSC), an international organization that engages with the social sciences. The IGU is active in interdisciplinary international joint projects in both natural and social sciences, such as the global environment, land-use change, and urbanization. It also carries a heavy responsibility in large-scale projects affecting diverse research fields within the International Geosphere–Biosphere Program (IGBP), the Scientific Committee on Problems of the Environment (SCOPE), the International Human Dimensions Programme on Global Environmental Change (IHDP), and the International Year of Global Understanding (IYGU). Many members of the IGU are also members of related international organizations, such as the International Cartographic Association (ICA) and the International Society for Photogrammetry and Remote Sensing (ISPRS), which facilitate joint symposia and other cooperative activities.

III. Trends of Geography Worldwide

The origins of geography are said to go back in history as far as ancient Greece and Rome.

Because many diverse academic disciplines have been derived from geography, it is often referred to as the “mother of all sciences.” Present-day geography originated in Germany in the 19th century with scholars such as Alexander von Humboldt and Carl Ritter. This new geography then spread to various other European countries and North America. At the beginning of the 20th century, geography was able to build a systematic foundation at universities, a step ahead of various adjacent fields. After the Second World War, Western universities approached a period of growth. As an academic field with a history of achievements, it was fortunate for geography to have a stable role to play during this period. As a result, it was possible to make requests to university executives regarding the expansion of study subjects as well as research funds. In developing countries under the influence of colonial powers in Asia and Africa, geography-related study subjects were established and expanded relatively smoothly.

As is well known, academic specialization has accelerated since the mid-20th century and new fields have been established one after another. However, the organization of courses and subjects in emergent fields has not been easy. For example, while in the 1950s regional sciences enjoyed rising interest in the United States, the number of universities establishing such courses remained small until the 1970s. While geography was able to increase the numbers of students and teaching staff, even with existing academic subjects, the introduction of expensive GIS to tackle social topics as well as environmental research departments expanded its scope.

The situation of geography differs by country and region. In the UK, geography’s scholarly standing is high compared to various adjacent fields, a trend that can generally be seen in countries of the Commonwealth of Nations. In German-speaking nations, such as Germany and Austria, the institutionalization of geography in universities was faster than adjacent fields. In Canada, Australia, Russia (former USSR), China, and other countries with large land masses, geography has played an important role in the context of land survey and cartography, which

has great importance for land maintenance and control. As in Eastern Europe and China, where large numbers of geographers are employed by science academies and national research institutes, geography has an important voice in national land planning and regional policy. Although in the USA some universities reduced or terminated courses in the 1980s, in the 1990s the addition of GIS and spatial information technology, amongst others, to the basic classes allowed a revival of departments, supporting the growth of geography. Geography in Northern Europe is also quite characteristic. While physical geography and human geography traditionally belonged to different departments, in Sweden there has been a deepening of interactions over the past 20 years. In Finland, the relationship between geography and biology, the Earth sciences, and others is traditionally very profound.

IV. Trends of Geography in Japan

The first academic teaching unit in Japan was established in 1907 at the Kyoto Imperial University (now Kyoto University). Four years later, in 1911, one was also established at the Tokyo Imperial University (now University of Tokyo). After the Second World War, geography expanded, hence the number of geography teaching staff at universities increased sharply. This rapid movement was closely related to educational reforms implemented under the supervision of the General Headquarters (GHQ) in 1947. With the creation of the post-war university system, departments of education (courses for training teaching staff in schools) as well as liberal arts (general curriculum) were established. Due to the introduction of social studies into schools, posts were created for geography education at education departments. On the other hand, in liberal arts departments, geography was positioned as a major subject of general education. The background to these incentives has been that geography had established a certain systematic standing in the USA. In addition, Edward A. Ackerman participated in the occupation administration in his role as a technical adviser at the GHQ natural resources department, and climatologist Glenn

Thomas Trewartha at the social sciences advisory board had an influence on curriculum reform (Takeuchi and Ukita, 2000). Ackerman had been an energetic geographer as an associate professor candidate at his alma mater, Harvard University, under Derwent Stainthorpe Whittlesey.

In Japan, triggered by these educational reforms, geography experienced growth in the 1950s. While the Association of Japanese Geographers had only 612 members in 1950, that number had doubled within five years to 1,310 in 1955 (Takeuchi and Nishikawa, 2000). By 1953, geography courses had been established in graduate schools at Tohoku University, the University of Tokyo, Tokyo University of Education, Nagoya University, Kyoto University, Hiroshima University, and other national universities with a well-ordered systematic education framework for geographers (Takeuchi and Ukita, 2000). During the period of rapid economic growth, which started in the second half of the 1950s, problems such as rapid urbanization and intensification of inter-regional migration, as a result of changes in the socio-economic structure, including the transition from agriculture to manufacturing industry, as well as pollution problems affecting water, air, and soil, became apparent. Related disciplines were asked by the central government and local public bodies for advice and guidance to solve these problems. Geography started to be given more scope and the degree of awareness in society rose, with more demands for research and participation as council members.

However, upon entering a period of low growth, the momentum slowed, and the scope of geography activities narrowed. Organizational changes in graduate and undergraduate courses occurred and existing research departments were forced to change their names. In the course of this process, the number of courses and schools bearing the designation geography decreased. In addition, when departments for training teaching staff were forced to shrink as a result of a declining birth rate, the growth in the number of geography teaching staff also reached its limit. The dismantling of liberal arts departments further spurred this development.

In the second half of the 1990s, the establishment of new departments and schools for regional and global environment, environmental science, international and comparative culture, regional research, and others followed, mainly at private universities.

At these emerging departments and schools, it was hoped that cases would be seen of geographers employed as experts in general education or special study subjects. In recent years, it has been common for geography subjects and posts to be divided among tourism and information/intelligence-related departments and schools. Over the years, the scope of activities of geography, regarding professional education in the general education curriculum at the undergraduate level, has become wider. Against the background of societal and economic population problems accompanied by globalization, such as the international migration of industries, the expansion of regional disparities, the growing severity of global environmental problems, the rise of disaster prevention training, etc., societal needs today regarding geography are rising.

V. Cooperation and Internationalization of Research Societies

In terms of representative academic geography societies, among others, there are the Association of Japanese Geographers, the Tokyo Geographical Society, the Human Geographical Society of Japan, the Japan Association of Economic Geographers, the Tohoku Geographical Association, the Japanese Society for Geographical Sciences, the Japanese Society for Historical Geography, the GIS Association of Japan, the Geographic Education Society of Japan, and the Japanese Geomorphological Union. Over the course of many years, a wide range of activities has evolved, further contributing to the growth of geography. In recent years, various academic societies have intensified cooperation, and a movement to develop combined organizations has gained momentum.

In March 1999, the Japanese Geographical Union was founded to bring together 25 academic societies. This union has a network-like organization with the purpose of encouraging smooth

information exchanges among participating academic societies, in order to enhance social awareness and education at research institutions concerned with geography, cartography, regional and environmental problems, and geo-information. In March 2006, the Union on the Human/Economic Geography and Regional Education was established. This organization discusses issues related to human and economic geography, as well as regional education, and currently consists of 22 academic societies. In March 2008, the Japanese Organization of Geographical Sciences (JOGS) was founded to combine these two organizations. According to its guidelines, the purpose is for each academic society to deepen cooperation and develop science together with the Science Council of Japan and other science-related organizations. In the areas of universal administration and mass communication, it proactively communicates with the public and promotes international exchanges¹⁾. In 2012, JOGS was acknowledged by the Science Council of Japan to be a cooperating academic research organization.

The Japan Geoscience Union (JpGU) was inaugurated in 2005 as a comprehensive union organization for all Earth and planetary sciences. Currently, 48 organizations participate. The union is divided into five science sections based on research topics. One of them is Human Geosciences, which focuses on the effects of human-nature interactions on the Earth's surface. In this section, geographers account for the core of researchers and lead most activities.

When examining the academic research system in Japan, the Science Council of Japan, which is a special organization under the jurisdiction of the Prime Minister and represents 840,000 researchers from all related fields, must not be forgotten. The main purposes of the Science Council of Japan are to propose policies, foster international activities, construct a network of scientists, and inform the broad public. It has approximately 210 members and approximately 2,000 cooperating members. The point I would like to emphasize in this context is the fact that, in recent years, the number of geographers among members and cooperating members has risen significantly.

The Science Council of Japan consists of three departmental organizations and 30 committees. Geography has established a strong foothold in both the natural sciences and the human and social sciences, namely the 1st Division (human and social sciences) and the 3rd Division (physical sciences and engineering). Many geographers are involved in, amongst other activities, drafting proposals and preparing symposia. The dynamic activities of the Science Council of Japan, as well as strengthening cooperation among academic society, as already explained, contribute not only to communicating the utility of geography to various adjacent fields, but also to strengthening unity and making improvements inside the field of geography.

The internationalization of geography in Japan came late compared to other natural sciences, but over the last ten years academic societies have played a central role in promoting international exchanges. Seminars have been held to which well-known international geographers have been invited; international symposia have been planned where domestic and international geographers could gather; and, international exchanges in geography have become more active over the years. Periodic meetings have also been organized. For example, in the geo-information sciences, in conjunction with members of the Korean GIS Society (KGIS), an annual Japan & Korea International Symposium is held, at which Asia-related GIS research are deepened. In 2006, the Association of Japanese Geographers (AJG) together with the geographical societies of China and Korea established the Japan–China–Korea Joint Conference in Geography, which is held annually in one of the three countries in rotation. In addition, in 2011, the same society also started the English-language publication “International Perspectives in Geography: AJG Library,” aiming to promote geographic research and contributions to the international community. This project is undertaken in cooperation with one of the world’s biggest publishing companies, Springer, and is not only published in print (book edition), but also via digital media (digital edition), in order to share research results and enhance the standing of

Japanese geography around the world²⁾.

Internationalization is progressing steadily at an individual level. The number of geographers proactively participating in international conferences and contributing research results to proceedings and special issues of international magazines is rising. In particular, among young geographers and graduate students, the tendency to publish research results in English and to contribute to English-language international journals rather than Japanese journals is growing. In the field of physical geography, the number of geographers joining the editorial boards of respected international magazines with a high-impact factor is not small. In some cases, they have even reached the positions of editor-in-chief or vice chairman. Geography in Japan is in the process of becoming a major node within Asia regarding the international science network.

VI. Geography in the Future—What Are Our Goals for Geography?

Geography research is about the various space-time mechanisms on the Earth’s surface. In particular, the field of analyzing spatial processes, which leads from the past to the current state, has yielded significant results. In contrast, while social and engineering sciences are entrusted with forecasting the future, geography’s role remains that of providing foundational data with which to make those forecasts. Its proactive involvement in planning and policy has also been minor. Yet, since the inductive method of extending processes that leads from the past to the present is a valid means of forecasting and looks at future developments, the perspective of geographers, who are familiar with spatial processes, can be expected to excel in planning and policy. In recent years, due to the development of skills in GIS and remote sensing, spatial prediction models have been developed, and have attracted attention by beginning to introduce GeoComputation to the science of complex systems. If these cutting-edge simulation technologies and scenario analyses can be used freely, they may be extended for use in spatial governing and management, rather than being limited to spatial estimation. In addition to

basic research, the promotion of applied research in geography is now being sought.

The Science Council of Japan has suggested new ideas for an academic body where disciplines are divided into epistemological or cognizing sciences, which search for “what is” or “being,” and designing sciences, which search for “what should exist” or “what should be” (Integration Committee of the Science Community and Knowledge, 2007). Geography in the 21st century should be moving toward being a useful discipline that contributes to society, bearing in mind both the designing and cognizing sciences. Learning cannot develop without the support of society. It is important to promote research and to precisely understand the needs of people at national and regional levels, while being constantly aware of the benefits science can give to society.

Due to the fragmentation of academic disciplines, regular interactions among researchers continue to be limited outside their respective specialized fields of study. With the individual decentralization of research, in other words the “foxhole mentality,” progressing, what can be expected of geography as a combined science, which has both a natural science character and a human or social science character at the same time? For one thing, the forces that drive the subject’s specialization seem to be parts that can be seen as glue combining various fields related to geography and Earth sciences. In recent years, the importance of understanding those connections and an overarching way of thinking have been pointed out, and the importance of interdisciplinary projects bridging multiple fields has been advocated.

Within geography, traditionally there has been a trend to prefer the pursuit of independent individual research based on individual interests, even if only a small number of people are interested, rather than participating in large-scale joint research projects. However, we want to stress that, from now on, it is necessary for the world of geography to act in a systematic and orderly way in the academic world, in order to dispel this impression. It is strategically important that all academic societies, unions, and cooperating orga-

nizations establish and collaborate on common topics and uniform subjects, and that geographers become the one authority that responds to society’s requests and tackles urgent issues. It is also of great importance, working together with international geographers, to systematically drive international collaborative research. Concretely, it is desirable to proactively participate in teams within international programs advocated by the ICSU and ISSC, or international projects suggested by international organizations and foundations. In any case, the key lies in demonstrating the utility of geography to society. Perhaps at this point in time geography needs a top-down, rather than a bottom-up approach.

VII. Aims and Composition of the Special issue

This special issue “Geography in the World” was designed for geography researchers, graduate students, administrative personnel, people in the corporate sector, and those in various fields adjacent to the related Earth sciences, who are interested in the Kyoto Conference and want to establish relationships with geographers from all over the world. The situation of geography differs by country and region, as diversification progresses in various facets, such as research organizations, research subjects, university undergraduate and graduate education, and organization of the curricula. Based on these circumstances, this special issue addresses each country’s geography movements, positions, societal roles, and futures. In Part I, prior to this edition, we focused on European countries, namely England, Germany, France, Switzerland, Austria, Spain, Portugal, Sweden, Finland, Russia, Poland, Slovakia, and Romania. Part II, this edition, covers the Netherlands, the USA, Canada, Brazil, Korea, China, Taiwan, Vietnam, Indonesia, India, Australia, New Zealand, and Africa. Overall, we tried to find a regional balance, and selected 26 countries and regions that are active in geographic research and education. Yet, there are many more interesting countries we could not cover due to a lack of authors.

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Notes

- 1) <http://www.ajg.or.jp/JOGS/> [Cited 2012/6/20].
- 2) <http://giswin3.geo.tsukuba.ac.jp/ajglib/> [Cited 2012/6/20].

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- * Title etc. translated by Y.M.