

THE KARST SESSION AT THE 31st INTERNATIONAL CONGRESS OF GEOGRAPHY, TUNIS, TUNISIA

Every 4 years, the International Geography Union (IGU) organizes events in order to bring together geographers from around the world. Thus, the IGU presents itself as an organization which objectives are aimed mainly, in promoting the study of geographical problems concerning its human or physical aspects.

The International Geographical Union was established in 1922 in Brussels. However, the history of international meetings of geographers is much older. The first of a series of such conferences took place in Antwerp (Belgium), in 1871. Since its first meeting the IGU was organized into three main components: the General Assembly, the Executive Committee, the Committees and Study Groups, which work between meetings of the General Assembly. The adopted official languages are English and French.

Currently, it is organized through an Executive Committee, 90 National Committees, 2 Special Committees, 4 Task Forces and 36 Special Committees. For the karst and caves one can highlight the C04.22 Karst Commission, chaired by Andrej Kranjc of the Karst Research Institute, Slovenia.

THE EVENT

Between August 12th and 15th, 2008, the Association of Tunisian Geographers was responsible for the organization and implementation of the 31st International Congress of Geography, held in Tunis, capital of Tunisia, North Africa. Like most international academic events, pre and post-congress excursions were organized for the participants.

The country shares borders with Algeria in the west, and Libya in the east, in the coast of the Mediterranean Sea. The Atlas Mountains divide the country into two main regions: the Mediterranean north and the arid south. According to its relief, it is still possible to divide the country into four almost parallel stripes in the north-south direction: 1) the coastal plain of Medjerda, 2) the Atlas mountain range, 3) the plateaus decreasing towards the south and 4) the Sahara Desert which is around 40% of the country. Especially by those physical conditions, approximately 38.5% of the soil is considered unproductive for agriculture.

The main theme of the Congress was represented by the phrase "Building together our territories". However, the event still had four strong main thematic axes: the territories, the construction of territories, the actors and the sustainable development. According to the Organiz-

ing Committee, going beyond the classical discussions of division of Geography, the event aimed to demonstrate that these are matters of this science that allows man to live in the search for harmony with their environment.

It is also important to mention the existence of a parallel theme (The Evolution of Geographical Thought) and the various topics of specific technical sections:

- **Physical Geography** (Biodiversity and Environmental equilibrium; Geography of arid lands; Biogeographical diversity; Coastal morphology; Climatological matters; Geography of cold regions; Mountainous systems; Natural Risks; Reliefs and Karstic contours)

- **Human Interventions** in weakened environment (Town and land planning; Local and regional development; Rural areas transformation; Mobilization and uses of water; Populating dynamics; High lightings improvement of the coastlines; Risks and aggressions on the coastal areas; Mountain and human activities; The desertification and human responses)

- **Economic geography** (New economic process in the globalizing era; Geography of transport; Geography of ports; Geography of Tourism; Industrial spaces; Geography of fishing; Geography of commerce)

- **Urban spaces** (Sustainability of small and medium towns; Metropolization; Town management and development; The town, a place of living)

- **The world-space** (The large political changes of the present world; Sociocultural and special process all over the world; Geography of the large geopolitical spaces; Outskirts and marginalized spaces; Geography of emerging countries; Responses to underdevelopment; Geographical views over globalization)

- **Concepts, tools and geographical techniques** (Making maps of today's world; New technologies in Geography; Geography and modeling; ICT and geography; Techniques and representation tools of the geographical space; Conceptualizing in Geography; Epistemology of Geography; Speeches and geographical languages; Didactic of Geography; The geography in networks; Distribution and geographical concentrations; Geography and teaching; Geographical landscapes; Geography and humanism)

- **Other geographies** (Applied geography; Cultural geography; Psychogeography; Geography of health; Social geography; Population matters; Political Geography)

- **Particular spaces** (The Mediterranean; The Sahara; The Africa; Geographical Diversity of the Arab countries)

The participants of the event were able to participate in general and specific lectures within each of the areas identified above. Regarding this report, more emphasis was given to the activities of the IGU Karst Commission.

THE IGU KARST COMMISSION

The main objective of this Commission is the investigation of morphology and vegetation associated with the karst world scenarios, which make these landscapes a so distinct geocosystem. The committee aims to advance knowledge of ecological, geomorphological and hydrological aspects of karst, especially in relation to the impacts caused by human activity. Therefore, the inclusion of studies of the karst in national and international conferences should always be seen as positive, involving the issues related to sustainable development in this type of terrain.

Specifically in this congress of Geography, the papers related to karst were mainly associated to physical geography and epistemological discussion regarding consolidated concepts in Karstology. Work on the historic importance of the karst of Cordisbugo (Brazil), as the region where for the first time in the Americas studies of Paleontology, Archaeology and Speleology appeared and the relationship between the scallops and regional paleoflow were approached by Travassos and Guimarães (2008).

Zhang *et al.* (2008) presented a likely new form of genesis of karren studied in Tibet. According to the authors, there are still many debates about the fact if it is possible to occur or not the dissolution of limestone in conditions of aridity for karren genesis. For the researchers, the studies in Tibet shows evidence of the formation of microkarren, influenced by aeolian action.

Another important discussion was presented by Kranjc (2008), who demonstrated how Karstology should be perceived as a science in which where that presents concepts are in constant evolution. One example is the term *dolina*, used for the first time by Morlot, in 1848, in the Kras Plateau, Slovenia. Originally the term was used to designate both solution (original meaning) as well collapse dolines. With the popularization of karst studies, the term collapse doline was introduced and is now widely used by geologists. As with the term *dolina*, in the American literature, the term *sinkhole* may also have several meanings.

The most important topic of the presentation was the recognition of the work developed by Chinese karstologists who started to introduce the term *tiankeng* (*tian*= sky; nature / *keng*= hole) in order to identify collapse dolines.

Only future will show us whether we will use a new term to designate the collapse dolines, or if the term will be considered another type of special doline. One can say that the *tiankeng* are very specific macro scale forms that can reach over 600 meters of depth, for example. At first, its size and depth make it difficult to its internationalization being more relevant to Karstology its inclusion as another type of collapse doline.

FINAL CONSIDERATIONS

As an academic discipline, Geography is characterized by a highly pluralistic approach that helps its professionals to have some degree of convergence. It is precisely that the main feature which, paradoxically, makes geographers holders of some cohesion and self identity. Neither better, nor worse. Only different, capable of congregate other science branches.

For the French, Geography is not only physical, not only human or technical. It is the study of Earth as home of man and therefore the excesses of specializations within the discipline should be viewed with caution (Amorim Filho 2005), working for the integration of these three pillars. Likewise, Karstology is a multidisciplinary field of study.

One can reflect on the evolution of geographical thought noticing that Geography has always been fundamentally not reductionist and holistic. According to Pitman (2005), Geography has always been inclined to focus specific areas of knowledge, however, never forgetting its complexity. While other subjects developed a reductionist capacity over the centuries, Geography has always (or almost always!) was aware that Earth is a "complex system", that can not be explained only by considering individual parts.

What is missing for the discipline, and is the biggest barrier to its full development, is respect for diversity (Clifford 2002). For Mathews and Herbert (2004), Geography today is more dynamic than before and is commonly perceived as a discipline where there is a lack of unity. The "gap" created since the mid-twentieth century between the physical and human sub disciplines in terms of ideology and methodology, is most often the main focus of academic discussions. The coherence and identity are sometimes undermined by the various and different paths taken by geographers, in what we can call an "explosion" of specializations within the same science, leading it towards other branches of knowledge, such as Geology or Sociology, for example.

These differences are also the reason of debates by various authors, who claim that these are ideas that try to divide the discipline and go against the essence of Geography, which is plurality. Fortunately, while participating in 31st ICG, it was possible to perceive a strong current

toward the strengthening of unity among the physical and human areas of geography, the fundamental solution of global problems.

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Luiz Eduardo Panisset Travassos¹
Andrej Kranjc²

¹ Associated Junior Researcher from the Environmental Studies Laboratory – Post Graduation Program in Geography – Spatial Analysis – PUC Minas University, Brazil.

² Karst Commission Chair - Karst Research Institute.