



# CONFERENCE SESSIONS' OUTLINES

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## 1. Session organized by one IGU Commission / Task Force

Sessions are listed following the order of commissions' number

No	Commission / Task Force	Session title	Chairperson (s)	Session outline
1.	C12.06 Cold Region Environments	Resources, Well-Being and Sustainable Development in the Arctic	<p>Andrey N. Petrov  <a href="mailto:andrey.petrov@uni.edu">andrey.petrov@uni.edu</a></p> <p>Tatiana K. Vlasova  <a href="mailto:tatiana.vlsv@gmail.com">tatiana.vlsv@gmail.com</a></p>	<p>The proposed session will directly respond to four of five main themes of this IGU conference- Polar studies, urban ecology, climate change and regional sustainabilities. The papers invited to the session will focus on the connection between the use of natural resources and human well-being in the Arctic in the context of sustainable development in different regional and institutional contexts. We will strive to ensure methodological and regional diversity, as well as achieve a combination of conceptual papers and case studies that represent community-based and community-relevant approaches. This session will establish more tight contacts and cooperation between the IGU Cold Region Environments Commission and the International Arctic Science Committee (IASC) and as well as with the University of the Arctic and Research Coordination Network in Arctic Sustainability (Arctic-FROST). The session is co-sponsored by the IASC Social and Human Sciences Working Group(SHWG) and Arctic-FROST will contribute to key IASC, Arctic-FROST and IGU priority areas. These include such scientific foci as human health and well-being, Arctic residents and change, migration and sustainability; and natural resources use and development.</p> <p>The session invites papers from the early career scholars, especially those from Arctic regions of Russia. We extend special welcome to researchers from northern regional chapters of the Russian Geographic Society. We are also looking forward to have representatives and papers from the University of the Arctic and its thematic networks particularly to activate an agreement of cooperation between the UArctic and the Russian Geographical Society. We will also use the session to familiarize participants with the ICARP III outcomes, IASC and the University of the Arctic activities.</p>
2.	C12.06 Cold Region Environments	Cold Regions: Monitoring, Observing, Understanding	<p>Tatiana K. Vlasova  <a href="mailto:tatiana.vlsv@gmail.com">tatiana.vlsv@gmail.com</a></p> <p>Nancy Doubleday  <a href="mailto:doublen@mcmaster.ca">doublen@mcmaster.ca</a>  OR</p>	<p>Nowadays a lot of observation and monitoring programs, projects and networks exist in Cold regions: Arctic, Antarctic and High Mountains. They differ according to the objects of observations: climate change, sea-ice melting, biodiversity dynamics, quality of life conditions and human capital development of local people, etc. They implement different approaches and methods derived from both biophysical and social sciences. These projects and networks cover diverse biomes, all Arctic states, many administrative, socio-ecological systems at different scales. Nevertheless it</p>





			<a href="mailto:ncdday@gmail.com">ncdday@gmail.com</a>  Marie-Jeanne S. Royer	<p>is needed to have wide geographical picture of such monitoring programs, projects and networks to have necessary knowledge of happening ecological and socio-economic as well as cultural changes at the pan-Arctic as well as Cold regions scales. The aim of this session is to gather fruitful data about existing observation systems, approaches and ideas concerning monitoring change, get more deep and territorially wide information on common and specific features of happening ecological and socio-cultural processes and identify possible future trends. Special attention will be put to the ways local communities, both indigenous and non-indigenous participate in observations and monitoring activities providing their traditional and local knowledge and perceptions of on-going changes. Also it would be interesting to discuss how this traditional and local knowledge is recognized and used by scientists as a valuable data source which can enhance scientific studies of the Cold region environments change and producing recommendations for decision makers and developing strategies for resilience building, pro-active adaptation and sustainable development at different scales – from local, pan-Arctic to global.</p>
3.	C12.06 Cold Region Environments	Social and Ecological Challenges and Solutions in the Arctic Coastal Zone	Gleb Kraev <a href="mailto:kraevg@gmail.com">kraevg@gmail.com</a>  Tatiana K. Vlasova <a href="mailto:tatiana.vlsv@gmail.com">tatiana.vlsv@gmail.com</a>  A. Maslakov	<p>The coastal zone is the interface through which land-ocean exchanges in the Arctic are mediated and where decision-making of local to global consequence takes place. It is also the home and homeland of many indigenous groups and the home and workplace for temporary and permanent northern residents. Narrow, but vastly extensive, the Arctic coastal margin is the locus of complex interactions of marine, terrestrial and atmospheric processes that are sensitive to projected environmental change and anthropogenic stressors. Many northern cultures, including indigenous peoples, are dependent on marine and coastal living resources; harvesting these entails, interaction with the changing physical environment in ways that depend, for example, on the continued viability of travel on ice. There are direct connections between environmental changes such as degradation of sea ice and measures of well-being such as fate control and food security. In many parts of the Arctic, the majority of communities can be found along the coast. These regions, largely devoid of roads, are also sensitive to impacts on aircraft and sealfit operations. A better understanding of current and expected circumpolar coastal change is urgently required, given that the region provides essential ecosystem services, supports indigenous economies and lifestyles, hosts a wealth of natural resources, and is a zone of expanding infrastructure investment and growing security concerns. As a consequence of climate change, changing demographics, resource shifts and extraction, and globalization, northern coastal zones are rapidly changing social-ecological systems. There is an urgent need to support formal and informal adaptation processes in ways that address the local priorities of coastal communities in the Arctic, while simultaneously addressing larger-scale issues of social-ecological change.</p>



				Moreover, once established, it is critical that these adaptation processes and decision-making models be sustainable within the region. We hope to create an atmosphere of such a dialog, involving researchers, representatives of the Arctic coastal inhabitants, and decision-makers to figure out the possible ways of solution of arising problems and monitoring of change.
4.	C12.07 Cultural Approach in Geography	Global Sustainability and Global Understanding	Beno Werlen <a href="mailto:benno.werlen@uni-jena.de">benno.werlen@uni-jena.de</a>	The theoretical foundations of ecological research and sustainability policies were developed at the end of the 19th century and were largely based on biological and geographical investigations of living spaces, and the evolution and differentiation of varied life forms. Both the biological and geographical disciplinary perspectives are embedded in the practical and theoretical European problem situations of their time. The two scientific investigations – one into life general and the other into human life on our planet – were linked to the social and spatial formations we currently regard as historical. Given the current problem constellations, we need to rethink these concepts. Systematically and historically, we can learn a lot from these biological and geographical scientific traditions: the positive outcomes and, even more importantly, the highly problematic implications. The interim transformation of the spatial and natural relations is based on the globalization process in the context of the digital revolution. This process is so radical that we cannot continue to try and solve 21st century ecological problems with problem-solving strategies derived from theories designed for 19th century problems. To overcome the problematic implications of that constellation, we have to take into account the central dimension of change and to develop new perspectives of research and agency to promote global sustainability, interconnecting local action with global necessities on the basis of global understanding ( <a href="http://www.global-understanding.info">www.global-understanding.info</a> ). Papers are welcome that are dealing with the theoretical challenge as well as giving empirical insights into these interconnections.
5.	C12.07 Cultural Approach in Geography	Performing places, cultures and nature in different social and geographic settings	Dupont Louis <a href="mailto:duponlouis@aol.com">duponlouis@aol.com</a>	The cultural turn in geography, as much as the spatial turn in the social sciences, have pointed out and renewed the reflection on the interconnections of places, things and people. Not in a passive or predetermined way, more so in a dynamic relation to human beings capacities to compose with social settings and to perform places. The concept of performance is here key. In geography, as suggested by Nigel Thrift, performances and performing mean a embodied person constantly producing reality, that is the reality of a place. It can be in simply by "being there", but more often by "doing something", sitting, walking, talking, showing signs, etc. His/her actions create place in enlightening the sociocultural and political norms that thus become manifest through those actions and interactions, performed intentionally or not, from day to day repetitive performances of a known place to actions interconnected to



				<p>activities taking place at the regional, national and global scales. In other words, places tend to be prescriptive, at various degrees, embodied persons tend to be performative. As a consequence, one can thus find his/herself "in place" or "out of place", as Tim Creswell has shown, because of physical, cultural, social, sexual attributes, given or assumed. This interplay of places, things, people and performance allows geographers to explore anew all types of places and their connections to each others. It clearly links in a dynamic way culture and society through the examination of micro places, such as a classroom or a conference seminar room, but also, a public park or a street, a bar or a shopping center, an airport as well as a region, and many others. It forces geographers to look beyond the too often convenient dichotomies between private and public places, between highly symbolic places and so-called meaningless places, etc, since all are acted and reenacted through the tensions existing between the prescriptive and the performative. It also forces geographers to look more carefully at the roles of all types of norms, who or what group enforces it, what limits it sets, for what purposes, to what avails. It also makes geographers more focus on tensions that arise from different performances in one place and their potential transgressive impact. At last, it enables geographers to talk about the ephemeral dimension of places, since performances can be limited in times, which means that places can exist for just a short time. The UGI Cultural Approach Commission wish to explore the interconnection of places, things, people and performances, in all its dimensions, expressions and temporalities. Case studies at all scales and in various cultural and geographical settings are much welcomed, as well as theoretical contributions that could enrich the discussion on this theme. Focus can be: on related tensions (from different performances in a place); on the ephemeral dimension of some performances (hence of places); on the normative dimensions and its ways of expressions; on transgressions and limits; on the space of performance of minorities in a related majority-setting; on the performativity of gender in various places, etc. More classical geographical questions can also be reexamined through this perspective : How is nature being performed? How is a region being performed? How is rurality being performed? Or yet, how is a beach being performed? How is violence being performed? Presentations can draw on different supports: films, photos, data, discourses, ethnographic accounts, group and militant actions, etc.</p>
6.	C12.09 Environment Evolution	Climate - vegetation interaction under current and future climate change scenarios	<p>Dr. Tatjana Boettger  <a href="mailto:tatjana.boettger@ufz.de">tatjana.boettger@ufz.de</a></p> <p>Dr. Alexander Olchev  <a href="mailto:aoltche@gmail.com">aoltche@gmail.com</a></p>	<p>The session is aimed to bring together the specialists working in the fields of climate, vegetation and land use changes. Modern climate changes have significant impact on growth and functioning of the different plant community. On the other hand, the climate is very sensitive to land cover and vegetation changes. What is the main mechanisms of climate - atmosphere interactions, how the vegetation and land use changes</p>



				<p>influence the climate system and what is the response of the different plant communities to climate change are key questions for discussions in the session. We invite to take part in the session the specialists working in the different scientific areas (meteorologists, climatologists, forest ecologists, paleogeographers, modeling experts, etc.)</p> <p>The main topic of the session:</p> <ol style="list-style-type: none"> <li>1) Current climate and vegetation changes</li> <li>2) Scenarios of future climate changes</li> <li>3) Prediction of possible future vegetation and land use changes under different climate change scenarios.</li> <li>4) Men - climate - vegetation interaction under climate changes.</li> </ol>
7.	C12.09 Environmental Evolution	Environment Evolution and Human Activity in the late Quaternary.	<p>Prof. Andrei Velichko <a href="mailto:paleo_igras@mail.ru">paleo_igras@mail.ru</a></p> <p>Dr. Tatjana Boettger <a href="mailto:tatjana.boettger@ufz.de">tatjana.boettger@ufz.de</a></p>	<p>The special session of the IGU Commission on Environment Evolution will be focused on the long-term studies of landscapes evolution, climate dynamics and human activity in different geographical regions during the Pleistocene and the Holocene. We invite experts from different scientific areas to introduce new results of the experimental and theoretical studies focused on human-environment interactions in the different regions of the Northern and Southern Hemispheres in past epochs that are based on detailed paleontological information (pollen, macrofossil, diatoms, etc); geomorphological data, paleolimnic and paleohydrological materials, radiocarbon dates, stable isotope data and the evidence about beginning of human activities. New data and results obtained from archaeological sites and presentations that can comprise the results of environmental and archeological studies are very welcome.</p>
8.	C12.09 Environmental Evolution	Landscape dynamics and human impacts during the last millennium	<p>Dr. Tatjana Boettger <a href="mailto:tatjana.boettger@ufz.de">tatjana.boettger@ufz.de</a></p> <p>Dr. Elena Novenko <a href="mailto:lenanov@mail.ru">lenanov@mail.ru</a></p>	<p>The session is organized by the IGU Commission on Environment Evolution and focused on review of available knowledge on the forced and unforced climate variability and dynamics of human-environment interactions during the last millennium and the late Holocene. Fruitful discussion needs presenting and analysis of already existed data sets and results of new observations, data from natural archives, results of modeling experiments, etc. One of the key scientific questions of the session is to explain how human activities have influenced and changed natural ecosystems during the last millennium and in the recent past. For fruitful discussions we invite the specialists in landscape ecology and palaeoecology. The main topics of the session are:</p> <ol style="list-style-type: none"> <li>1) Local, regional and continental reconstructions of landscape dynamics during the last millennium using multy proxy data collected from lakes sediments, peat bogs, trees, speleothems and other natural archives;</li> <li>2) Reconstruction of climatic conditions of the last millennium using instrumental, documentary and natural proxies;</li> <li>3) Human impacts and land use in the late Holocene and in the recent past;</li> <li>4) Historical documentary sources and their application for climate reconstructions over timescales from the medieval period to the 20th</li> </ol>



				century. 5) The effect of land use / land cover changes on landscape structure.
9.	C12.10 Gender and Geography	Gendered Life-Courses	Joos Droogleever Fortuijn <a href="mailto:j.c.droogleeverfortuijn@uva.nl">j.c.droogleeverfortuijn@uva.nl</a>	The concept of the life course in feminist geography refers to the study of chronological age from a non-deterministic approach of age, acknowledging the highly gendered nature and place and time bounded character of life courses. It conceptualizes human lives as a trajectory through major life events which are deemed as critical transitions in different life domains. Some studies focus on one specific stage of the life course: childhood, youth, adulthood or old age, other studies examine experiences and critical events during the life course. Some studies focus on transitions in one life domain, such as household formation, education, labour market, care, mobility and migration, other explore the ways in which these various domains are interconnected in the life course. Some studies focus on one generation, while other examine intergenerational relations and exchange. All the studies however, recognize that individuals' lives are influenced by and embedded in specific geographic contexts. Ruth Fincher (International Encyclopedia of Human Geography, 2009) has noted that life course approaches in geography have made "major contributions in three areas: analysis of women's adulthoods and their caring responsibilities, the production of new geographies of children and childhood, and examination of ways that our public and private institutions make assumptions about life course stages". This session aims to build upon these existing contributions and participants are invited to present theoretical and/or empirical papers on one of the following gendered themes: - childhood, youth, adulthood, old age - critical transitions in household formation such as child birth, marriage, leaving the parental home, divorce, widowhood - educational trajectories during the life course - participation in paid and unpaid work during the life course - mobility and migration - intergenerational relations and exchange of support - home and belonging during the life course - meaning of and experiences with urban environments during the life course - institutional engagements over the life course - methodological issues of life course research
10.	C12.10 Gender and Geography	Gendered Crime and Spaces : An approach in Feminist Geography	Sahab Deen <a href="mailto:sahabjnu@gmail.com">sahabjnu@gmail.com</a>	The session ' <b>Gendered Crime and Spaces: An approach in Feminist Geography</b> ' offers an opportunity to debate over the issues related to gender specific crimes such as rape, trafficking, violence etc. The session as a whole aims to take stock of current scenario of debates regarding gendered crime, and open up possible new directions in the research of feminism, gender, sexuality, and society. Furthermore, we expect to go through criticism by presenting solutions and approaches to study gender from geographical perspective. We encourage the abstracts/papers submission which focuses on the following issues: Debates over issues such as rape, women trafficking, forced prostitution, domestic violence, physical and mental abuse, female foeticide and infanticide etc. which are prevailing





				in traditional environments of the society. Methodological concerns and problems during survey and data collection in the field of gendered crime as a feminist approach.
11.	C12.10 Gender and Geography	Factors Affecting Women's Education: Gender, Space, Culture and Society	<p>Sahab Deen <a href="mailto:sahabjnu@gmail.com">sahabjnu@gmail.com</a></p> <p>Gloria Kuzur <a href="mailto:gloriakuzur@yahoo.co.in">gloriakuzur@yahoo.co.in</a></p>	<p>The session 'Factors Affecting Women's Education: Gender, Space, Culture and Society' offers a forum for proposing, discussing and appraising various issues related to women's education at local, regional and global level from the gender perspective. The session is intended to engage these questions in a wide sense and encouraging the submission of abstracts that address issues related to all aspect of culture, space and society which influences women's education. The session as a whole aim to compare the issues across different societies and geographical spaces across the world. Additionally, the session will evaluate the existing debates on current educational development of women and expose spaces for possible new direction in the gender study in education as a feminist approach. At the same time, we expect to present a solution and suggestion in order to tackle these problems. We appreciate the papers submission which emphasis on the following issues: The papers aiming the problems related to women's education from geographical perspectives Paper focussing on the culture aspects, like customs, tradition, taboos and practices which confine the educational development of the women. Spatial analysis of the gender inequality in education with current scenario and future perspectives of women education. Papers emphasizing on formulation of concept and methodologies regarding women's education.</p>
12.	C12.10 Gender and Geography	Gender and climate change: Mitigation and Adaptation strategies	<p>Marcella Schmidt di Friedberg <a href="mailto:marcella.schmidt@unimib.it">marcella.schmidt@unimib.it</a></p> <p>Stefano Malatesta <a href="mailto:Stefano.malatesta@unimib.it">Stefano.malatesta@unimib.it</a></p>	<p>"Human influence on the climate systems is clear" is declared in the 2013 Summary for Policymakers of the IPCC working Group, and this influence is "evident in most regions of the globe". At the same time, quoting Mike Hume (2008), "we are living in a climate of fear about our future climate". The discursive dimension of climate change and, more generally, of environmental changes is a strong issue of contemporary debates on climate change. This debate emphasizes the relevance of relationships between cultures and environmental narratives. Evidence suggests that gender differences are significant in the impact of climate change but not enough attention has been paid to it. A gender perspective is a promising approach to understand global phenomena such as climate change, to interpret environmental narratives and to study local responses to environmental crises in mitigation and adaptation to climate change. In this session, we seek papers that examine the ways in which gender intersects with mitigation and adaptation strategies to address climate change. The session's organizers encourage submissions of papers that analyze the public discourse on environmental changes through a gender perspective (adaptation in urban contexts, adaptation in agrarian settings, women implementing mitigation strategies, barriers to participation and decision making, women vulnerability to natural disasters). The aim of the</p>



				session is both to question how the environmental discourse represents gender differences and to stress the role of women in mitigation, adaptation and resilience policies and strategies.
13.	C12.11 Geographical Education	Geographical education for life. Geography Teacher Education: the need for a well-prepared professional body of knowledge.	Dr. Clare Brooks <a href="mailto:C.Brooks@ioe.ac.uk">C.Brooks@ioe.ac.uk</a>  Prof Sirpa Tani <a href="mailto:sirpa.tani@helsinki.fi">sirpa.tani@helsinki.fi</a>	An increasing trend around the world is for non-specialists to be asked to teach geography. There is little consideration for the best ways to support pre-service teachers to become high-quality professional geography teachers. In this session, we explore what subject-pedagogy looks like in geography education, and the best ways to induct geographers into becoming professional geography teachers. Contributions regarding developing and improving geography teaching in primary, secondary and tertiary geography education are welcome.
14.	C12.11 Geographical Education	Geographical education for life. Geospatial technologies in geographical education: implications for geographical lessons.	Prof Joop van der Schee <a href="mailto:j.a.vander.schee@vu.nl">j.a.vander.schee@vu.nl</a>  Prof Osvaldo Muniz <a href="mailto:o.muniz@txstate.edu">o.muniz@txstate.edu</a>	This session focusses on geospatial learning in primary, secondary and tertiary geography education. The digital revolution offers more and more fascinating possibilities to discover planet earth. Geospatial technology refers to equipment used in visualization, measurement, and analysis of earth's features, typically involving such systems as GPS, Geographical Information Systems, Remote Sensing and digital globes. The question is how we can use geospatial technologies to stimulate geographical thinking and develop geospatial skills.
15.	C12.11 Geographical Education	Geographical education for life. Integrated school discipline and geography: new challenges and capacities.	Dr. Clare Brooks <a href="mailto:C.Brooks@ioe.ac.uk">C.Brooks@ioe.ac.uk</a>  Dr. Michael Solem <a href="mailto:msolem@aag.org">msolem@aag.org</a>	In many curricula around the world, geography education is in taught through an interdisciplinary approach. This session focuses on geography's contribution to effective practice within an integrated curriculum. What are the characteristics of integrated approaches in primary, secondary and tertiary geography education? In what kind of ways can integrated approaches feature good quality geography education? How do these integrated approaches fit in with learning progression?
16.	C12.11 Geographical Education	Geographical education for life. National curricula and international standards for geography education.	Prof John Lidstone <a href="mailto:j.lidstone@qut.edu.au">j.lidstone@qut.edu.au</a>  Prof Daniela Schmeinck <a href="mailto:Daniela.Schmeinck@uni-koeln.de">Daniela.Schmeinck@uni-koeln.de</a>	Under the headline of geography, different regions interpret geography curricula in a variety of ways. This session explores what is understood globally as geography education, what are the regional understandings, and how are the two connected? Another important question is what we can learn from each other? This session invites colleagues to present information about national geography curricula in an international perspective. Contributions regarding primary, secondary and tertiary geography education are welcome.
17.	C12.11 Geographical Education	Geographical education for life. National and international assessment in geography education.	Prof Joseph Stoltman <a href="mailto:joseph.stoltman@wmich.edu">joseph.stoltman@wmich.edu</a>  Dr. Ivy Tan <a href="mailto:ivy.tan@nie.edu.sg">ivy.tan@nie.edu.sg</a>	Assessment in education is an area of concern for students, parents, teachers and policy-makers. Formative assessment as well as summative assessment are important in designing learning processes in all aspects of student's learning of geography in primary, secondary and tertiary education. This session explores a range of different practices of formative and summative assessment strategies, with particular emphasis on new ways to involve students in evaluating their own learning process. In addition we are curious to hear more about projects that compare different ways of evaluation in geography within and between countries.



18.	C12.11 Geographical Education	Geographical education for life. Empirical and classroom research in geography education	<p>Prof Sarah Bednarz <a href="mailto:s-bednarz@tamu.edu">s-bednarz@tamu.edu</a></p> <p>Prof Ali Demirci <a href="mailto:ademirci@fatih.edu.tr">ademirci@fatih.edu.tr</a></p>	<p>This session focuses on recent research projects regarding geography in primary, secondary and tertiary education. Different research methodologies are welcome. A special welcome to geography research projects that have an international dimension and to projects that help to develop an international research agenda for geography and improve research in geography education.</p>
19.	C12.11 Geographical Education	Geographical education for life. International links and innovations in geography education	<p>Prof John Lidstone <a href="mailto:j.lidstone@qut.edu.au">j.lidstone@qut.edu.au</a></p> <p>Prof Fernando Alexandre <a href="mailto:fernando.alexandre@essje.pt">fernando.alexandre@essje.pt</a></p>	<p>Is the International Geography Olympiad a good example of international assessment and innovation in geography education? This session explores if it is possible to make effective and efficient new steps in international geography education projects. How can we use innovative geography education learning from previous research and using new technologies? How can we get policymakers more interested in geography education? Questions like these regarding international innovation in geography education will be the focus of this session.</p>
20.	C12.12 Geographical Information Science	GIS or Information Systems: the boundary between basic and applied research	<p>Francis Harvey <a href="mailto:fharvey@umn.edu">fharvey@umn.edu</a></p> <p>Andrey Medvedev <a href="mailto:a.a.medvedeff@gmail.com">a.a.medvedeff@gmail.com</a></p>	<p>Over a long period of time, Eastern Europe has had many experiences in the use of geographic information technologies, implemented many GIS projects, created databases and spatial data. Academic resources for spatial data constitute a significant part of national information resources. The main producer of spatial data are institutions of geological, geophysical, geographical and ecological (environmental) profile. At the same time that the data are distributed, their use is often limited by the scope of the project and the area covered by the project. It can be difficult or impossible to search and access data without an established exchange. The reason for this is often the lack of effective systems for the management of spatial data. Their creation would integrate data and knowledge, build and support the use of models of natural and socio-economic phenomena and processes and support their inclusion in the system of society and the natural environment, for use with spatial analysis, to provide land use planning and management.</p> <p>In Russia, similar work is being done on the initiative of the departments, regions and major corporations, though, as evidenced by the extensive international experience, the priority is on hierarchically organized vertical SDI at national, regional and local (municipal) levels for supporting horizontal integration needs of geographically dispersed and distributed geographic information resources.</p>
21.	C12.12 Geographical Information Science	GIScience and geography education: From learning and discovery to science	<p>Francis Harvey <a href="mailto:fharvey@umn.edu">fharvey@umn.edu</a></p> <p>Andrey Medvedev <a href="mailto:a.a.medvedeff@gmail.com">a.a.medvedeff@gmail.com</a></p>	<p>In modern information societies the tendency to see an increasing usage of GIS is obvious. It speaks to its increasing availability and expansion of geographic information's possibilities. The changes which have occurred in science and in society at the end of the 20th century, promoted the development of geographical technologies including cartographical, knowledge and abilities to support every person in their life and professional work.</p>



				<p>Undoubted advantages of using GIS technologies in environmental education and other areas are: storing large amounts of diverse information on the same media and offline; increasing (detail) to include whole images or the most interesting areas; selection through the text accompanying the image or other visual material of "hot spots" to access additional explanatory information; wireless Internet; interactive dialogues; open navigation in user-friendly interface that provides ease of operation with the project.</p> <p>All available opportunities of these technologies emphasize simplicity and accessibility, both thematic and general geographic information. Geographic information presented in GIS provides the user with a great functionality. These capabilities range from simple scaling of visualizations to advanced layout functionality for producing the finished standalone project. In fact, at this point in time a synthesis of software and hardware devices, involving all of the network technology allows you to make a large spatial data information system with different sets of databases. GIS technology can provide more information to support the active dissemination of information to users. This potential opens new possibilities including support of autonomous vehicles.</p>
22.	C12.13 Geography of Governance	Governance between theory and praxis – multilevel and network governance in spatial perspective	<p>Ján Buček <a href="mailto:bucek@fns.uniba.sk">bucek@fns.uniba.sk</a></p> <p>Tomasz Kaczmarek <a href="mailto:tomkac@amu.edu.pl">tomkac@amu.edu.pl</a></p>	<p>Session will focus on the latest developments in theoretical debate concerning governance and its different meanings in various spatial perspectives. It should reflect diversity of theoretical and practical approaches to governance that developed with last decade. It should connect concepts as multilevel governance, networked governance, good governance,... and experiences in their applications. We invite contributions that reflect various forms of co-operations and networks observed in various geographical scales and settings. We are especially interested in evaluations of co-operations and networks among various levels and units of government in vertical and horizontal dimensions. They often shape altogether many policies and reforms. We believe that there is large potential for evaluation of theoretical approaches and practical experiences and their transmission into further enrichment of governance as very flexible concept.</p>
23.	C12.13 Geography of Governance	Governance, government and development in rural and peripheral environment	<p>Ján Buček <a href="mailto:bucek@fns.uniba.sk">bucek@fns.uniba.sk</a></p> <p>Pushkar Pradhan</p>	<p>Despite long term theorizing and research in the field of governance, less developed is discussion of its forms and roles in rural and peripheral conditions. We would like to initiate debate on democracy, participation, stakeholders, fields of interest, forms of co-operation etc. Key point is to which extent governance is applied and to which extent it is used in transformation and development of rural and peripheral areas. We would like to reflect experiences based not only on endogenous practices, but as well as practices initiated e.g. by various external actors (EU, central states, regional governments, cross-border transfers) in such specific conditions. Better understanding of governance in these areas could bring new</p>



				knowledge and new approaches to social and economic development in these areas.
	C12.13 Geography of Governance	Development, spatial planning and governance	Ján Buček <a href="mailto:bucek@fns.uniba.sk">bucek@fns.uniba.sk</a>  Carlos Nunes Silva <a href="mailto:cs@campus.ul.pt">cs@campus.ul.pt</a>	Governance as a concept is also an outcome of effort that should improve capacities for development in various geographical scales. This widespread concept also has entered into more traditional field of spatial planning. We suppose to have during this session interesting debate reflecting various interactions of planning, development policies and governance and theirs outcomes. Besides various progressive forms of collaborative territorial and environmental planning, as one of the most perspective field we can consider strategic planning in various scales, including urban, metropolitan and regional strategic planning. It is also field opened to various new participatory practices, new forms of planning documents, as well as new technological tools application.
24.	C12.14 Geography of the Global Information Society	Information Society and Culture 1	Mark Wilson <a href="mailto:wilsonmm@msu.edu">wilsonmm@msu.edu</a>	This session explores the cultural geographies of ICT such as the relationship between cultural identity and language, power, history, and technology. Also relevant is discussion of the ways that ICT shapes the identity of people and places, and how new technologies reflect traditional cultural landscapes.
25.	C12.14 Geography of the Global Information Society	Information Society and Culture 2	Mark Wilson <a href="mailto:wilsonmm@msu.edu">wilsonmm@msu.edu</a>	The Commission on the Geography of Global Information Society welcomes papers and participants with an interest in the ways that societies affect, and are influenced by, information and communication technologies (ICT). The complexity and scope of change associated with technologies such as the Internet and mobile telephony affect many facets of daily life.
26.	C12.14 Geography of the Global Information Society	Information Society and Quality of Life	Mark Wilson <a href="mailto:wilsonmm@msu.edu">wilsonmm@msu.edu</a>	Much of our daily life is influenced by the ICTs we all use. This session is interested in the ways that ICTs reflect and assist in terms of environment, health care, traffic management, and social interaction. Papers are welcome that address how ICTs affect our quality of life and also how they might be used in the future to improve living conditions.
27.	C12.14 Geography of the Global Information Society	ICT and Media/Cultural Industries	Mark Wilson <a href="mailto:wilsonmm@msu.edu">wilsonmm@msu.edu</a>	ICTs have always had a strong link to popular culture, but with the growth of easily accessible media in most advanced countries the cultural aspects of ICT demand analysis and attention. This session will examine the industries that have emerged to provide online content, such as anime, and the emergence of districts devoted to ICT culture and media.
28.	C12.14 Geography of the Global Information Society	ICTs diffusion in space	Mark Wilson <a href="mailto:wilsonmm@msu.edu">wilsonmm@msu.edu</a>  Anastasia Nagirnaya <a href="mailto:a.nagirnaya@gmail.com">a.nagirnaya@gmail.com</a>	The session is dedicated to explore the geographical aspects of information and communication technologies diffusion at a multiscale level – global, national, regional – and in the long term. Papers are welcome that address spatial disparities in ICTs penetration and usage, digital divide dynamics, patterns of ICTs spatial dissemination in different socio-economic conditions.
29.	C12.15 Geography of Tourism, Leisure, and Global Change	Tourism and regional development	Dieter K. Müller <a href="mailto:Dieter.muller@umu.se">Dieter.muller@umu.se</a>	Tourism is often considered a tool for achieving local and regional development. As consequence, public programs and various initiatives have been supporting a development that aimed at creating employment and other positive impacts on regional economies. Against this background





			Anne-Marie d'Hautserre <a href="mailto:adhautes@waikato.ac.nz">adhautes@waikato.ac.nz</a>	the question is asked whether and how tourism can achieve this. The session aims at illustrating and comparing different experiences of such developments. The session invites papers addressing above mentioned issues from theoretical as well as empirical perspectives. Particularly welcomed are contributions discussing the outcomes of change for people and communities.
30.	C12.15 Geography of Tourism, Leisure, and Global Change	Tourism and crisis	Sanette Ferreira <a href="mailto:slaf@sun.ac.za">slaf@sun.ac.za</a>  Alan A Lew <a href="mailto:Alan.lew@nau.edu">Alan.lew@nau.edu</a>	In the new millenium tourism has been frequently hit by crises. The terrorist attacks in 2001, the Tsunami in the Indian Ocean in 2004, the eruption of the Eyjafjallajökull in 2010 and the recent economic downturns are only some examples for crises that had significant impact on tourism. The aim of this session is to analyse the relationship between tourism and crises. What are the relations between tourism, environment and wider global processes of change, highlighting different types of "crisis", and how can they be managed?
31.	C12.15 Geography of Tourism, Leisure, and Global Change	Tourism, mobility and information	Jie Zhang <a href="mailto:jiezhang@nju.edu.cn">jiezhang@nju.edu.cn</a>  Alan A Lew <a href="mailto:Alan.lew@nau.edu">Alan.lew@nau.edu</a>	Tourism, mobility, and information are closely interlinked. Not least information technology has altered the ways holiday decisions are taken. The aim of this session is to critically analyze the impact of information on tourism and tourist mobility, but also the impact of tourism and mobility on information flows and patterns. Hence the session invites empirical and theoretical contributions on topics like ICT and tourism; social media and tourism; (mobile) visitor information systems; guidebooks and online visitor information; tour guides etc.
32.	C12.15 Geography of Tourism, Leisure, and Global Change	Tourism and environment	Dieter K. Müller <a href="mailto:Dieter.muller@umu.se">Dieter.muller@umu.se</a>  Anne-Marie d'Hautserre <a href="mailto:adhautes@waikato.ac.nz">adhautes@waikato.ac.nz</a>	This session addresses the nexus of tourism and environment. Not least scenic nature has been a major tourist attraction and national parks and other protected areas are important brands in the business of nature-based tourism. Hence it has been argued that tourism contributes to the preservation of nature and environments. At the same time tourism is a major contributor to global environmental change Tourism impacts on the global as well as the regional and local scale imply major challenges to the sustenance of protected environments and related communities. This session aims at analyzing the complex and multiple relationships between tourism and the environment and invites theoretical and empirical contributions
33.	C12.15 Geography of Tourism, Leisure, and Global Change	Geographies of polar tourism	Dieter K. Müller <a href="mailto:Dieter.muller@umu.se">Dieter.muller@umu.se</a>	Polar areas have recently experienced a growing interest among tourists and tourism entrepreneurs not least owing to relatively pristine nature and the presence of indigenous populations. This has turned polar regions into a touristic wilderness and into global playgrounds for adventure seekers traveling in the footsteps of historical explorers and expeditions. Moreover, climate change has created awareness in many parts of the world that attractions and assets of polar regions are at risk. Hence ideas of "last chance" to see and to experience polar areas have further intensified interest in polar tourism. Against this background this session aims at discussing trends in polar tourism. This includes issues such as the social



				construction of polar areas as tourist destinations, indigenous tourism in polar areas but also impacts of and challenges for polar tourism.
34.	C12.15 Geography of Tourism, Leisure, and Global Change	Publishing Tourism Geographies (Panel Session)	Dieter K. Müller <a href="mailto:Dieter.muller@umu.se">Dieter.muller@umu.se</a>	This panel session has been initiated by discussions on scientific publishing during the IGC in Cologne 2012. It addresses issues related to publishing geographical tourism research in academic journals and book series. The panelists will discuss the politics of publishing, but also standards to be met when submitting a scientific paper to a peer-reviewed journal. The panel session targets early career scientist mainly, but welcomes also senior researchers interested in discussing publishing issues in the field of tourism geographies.
35.	C12.15 Geography of Tourism, Leisure, and Global Change	Urban Tourism	Anne-Marie d'Hautserre <a href="mailto:adhautes@waikato.ac.nz">adhautes@waikato.ac.nz</a>  Alan Lew <a href="mailto:alan.lew@nau.edu">alan.lew@nau.edu</a>	In a globalized world even urban areas have become major tourism destinations. This implies that urban areas are transformed by tourism or in order to attract tourists. Urban property markets, service supplies and city images are only some of the dimensions that are affected by these transformations. This session addresses processes of urban change related to tourism development. It highlights the impacts of urban tourism and scrutinizes planning for tourism, also in relation to interests of other stakeholders and not least the urban citizens. The session welcomes empirical and theoretical contributions.
36.	C12.16 Geoparks	Geoparks and Geoheritage	Dongying wei <a href="mailto:donawei@gmail.com">donawei@gmail.com</a> OR <a href="mailto:weidy@bnu.edu.cn">weidy@bnu.edu.cn</a>	Major challenges in capacity building and sustainable development of Geoheritage (including to territories which want to become part of the EGN/GGN, natural heritage, protected areas etc.) Geoparks, GeoTourism & GeoHeritage Management Policy Widening Public Engagement and Forging Organizational Alliances Environmental Interpretation & Planning of Geoheritage Geoheritage Education, Training, and Communication
37.	C12.17 Global Change and Human Mobility (Globility)	People on the move: the perspective of the life cycle and the role of gender	Barbara Staniscia <a href="mailto:barbara.staniscia@uniroma1.it">barbara.staniscia@uniroma1.it</a>  Josefina Domínguez-Mujica <a href="mailto:josefina.dominguezmujica@ulpgc.es">josefina.dominguezmujica@ulpgc.es</a>	Life cycle is a concept widely developed in social sciences, proceeding from economics literature. In Geography, the assumption of stage and temporality gives sense to the human mobility from a demographic perspective. The implications of aging, the succession of generations and the role of gender, condition the type of movements and migrations. The short-distance, internal and international migrations differ with regard to the life courses of individuals. Therefore, it is necessary to recognize the most important events in the life courses that determine the will to move. Personal or family decisions are mediated by age, by gender, by the level of education, by the self-confidence and by the different patterns of residential affiliation and sense of home. Consequently the desires to change the residing place (to improve the personal or familiar welfare, to return homeland, to search a better place to aging, etc.) are intrinsically intermingled with the stages of life, keeping together a close relation. What are the connections between the different stages of the life and migrations? What happens when the process to move reveals an intergenerational linkage and what are its consequences? Are the sequences of migrations along the life courses the same between men and



				women? What is the role of gender from a life cycle perspective? What relation does the level of social integration have with age and gender? Is this determinant with regards to the decision to move? Contributions on the mentioned topics are welcome.
38.	C12.17 Global Change and Human Mobility (Globility)	Real and virtual borders: the challenge of human mobility	<p>Josefina Domínguez-Mujica  <a href="mailto:josefina.dominguezmujica@ulpgc.es">josefina.dominguezmujica@ulpgc.es</a></p> <p>Barbara Staniscia  <a href="mailto:barbara.staniscia@uniroma1.it">barbara.staniscia@uniroma1.it</a></p>	<p>Human mobility is one of the phenomena that has generated the most interest among social researchers throughout history. The mobility processes have been explained as a consequence of the interaction between migration policies, trade, labour market and welfare policies on the one hand, and the people's decisions and practices, on the other. The effectiveness of policies in front of the transnational contacts, the information networks and the desire to move of different persons call into question the borders as limits to the human mobility.</p> <p>The building of fortress-spaces with solid physical borders occurs simultaneously with the tendency to fluidization and permeabilization of borders and with the processes of trans-bordering, de-bordering and re-bordering. And these circumstances are intrinsically linked to the human mobility challenging borders policies. Beyond the control measures, the perceptions and wills of people contribute destroying barriers to move and, therefore, they reconfigure the geography of human mobility.</p> <p>Theoretical approaches and study cases could help to give sense of this complex set of circumstances that shapes human mobility and conforms a new structure of spaces and its limits.</p>
39.	C12.18 Hazard and Risk	Anthropogenic influence on natural hazards and risks	<p>Sergey A. Sokratov  <a href="mailto:sokratov@geol.msu.ru">sokratov@geol.msu.ru</a></p> <p>Sue Ching Jou  <a href="mailto:jouchen@ntu.edu.tw">jouchen@ntu.edu.tw</a></p>	<p>Number of studies show that the human-induced change in environmental conditions is often similar or even exceeds the climatic-driven year-by-year variability in the activity and in dimensions of various natural hazards. Anthropogenic change in surface topography, geomorphological features, water balance, vegetation, etc., occurring in short periods of time, can change the locations and characteristics of floods, landslides, debris flows, snow avalanches, etc. Additionally, appearance of new industrial construction and related migration of population change the risk values. Differently to natural trends in hazards' activity and related risks, estimation of the human-induced evolution in such parameters can rarely be based on long-term statistical data and requires development of other techniques. Contributions related to understanding of the possible consequences of anthropogenic changes of environment on the dynamics of natural hazards and the ways of risk assessment under anthropogenic pressure are invited.</p>
40.	C12.18 Hazard and Risk	Natural Hazards and Permafrost Dynamics	<p>Jose Novoa  <a href="mailto:jnovoa@userena.cl">jnovoa@userena.cl</a></p>	<p>Cold environments are characterized by varied dynamics, one of them is related to the process of freezing and thawing of the permafrost, both in mountain environments and on the plains, which directly affects the communications systems and transportation (roads and electrical systems), ducts of fuel (refineries and oil pipelines), residential areas (collachange at regional and local scales. Among many others, these examples allow to</p>



				support its inclusion as a specific topic within the Commission panels, both for its social impact as economic local development processes, as well as the difficulties that involves its mechanisms of theoretical and applied research in the existing frameworks for sustainability and resilience of communities.
41.	C12.18 Hazard and Risk	Disaster and resilience	Shigeko Haruyamas <a href="mailto:Haruyama@bio.mie-u.ac.jp">Haruyama@bio.mie-u.ac.jp</a>  Hiroshi Shimazu <a href="mailto:Shimazu@ris.ac.jp">Shimazu@ris.ac.jp</a>	Disaster damage both natural disaster and human related disaster has been increasing in the world, specific monsoon Asia. The risk assessment and vulnerability assessment under the rapid land use change with urbawn sprowl, disaster prevention and emergency management towords to mitigation should be needed linkeded with natural environment and social environment in future. Also, risk communication and mitigation governance are both inportant for risk reduction. In this panel, we will discuss with disaster and resilience in different dimensions. GIS research and remote sensing approach for disaster science are welcome in this session.
42.	C12.19 Health and Environment	Health and Environment Change	Professor Wuyi Wang <a href="mailto:wangwy@igsnrr.ac.cn">wangwy@igsnrr.ac.cn</a>	The aim of the session is to understand the research progress on health in the natural and built environment recognizing the importance of vulnerability and diversity in a globalizing world. The session is focused on the links among global change, health, and environment.
43.	C12.19 Health and Environment	Health and Health Care	Professor Wuyi Wang <a href="mailto:wangwy@igsnrr.ac.cn">wangwy@igsnrr.ac.cn</a>	The aim of the session is to understand the research progress on health and health care in the natural and built environment recognizing the importance of gender and diversity in a globalizing world. The session is focused on the analysis of quality of life with an emphasis on health, health care, and the environment at various geographic scales.
44.	C12.19 Health and Environment	Emerging and Re-emerging Diseases	Professor Wuyi Wang <a href="mailto:wangwy@igsnrr.ac.cn">wangwy@igsnrr.ac.cn</a>	The aim of the session is to understand the research progress on health in the natural and built environment recognizing the importance of gender and diversity in a globalizing world. The session is focused on urban health including emerging and re-emerging diseases and the role of migration and immigration.
45.	C12.20 History of Geography	Exploring and mapping lands, air and waters. Research on the History of Geographical Explorations	Prof. Jacobo Garcia-Alvarez <a href="mailto:jgalvare@hum.uc3m.es">jgalvare@hum.uc3m.es</a>  Prof. Alexey V. Postnikov <a href="mailto:postnikov@comtv.ru">postnikov@comtv.ru</a> ; <a href="mailto:postnikov@akado.ru">postnikov@akado.ru</a> ; <a href="mailto:apostnik@ihst.ru">apostnik@ihst.ru</a>	The aim of this session is to bring together scholarship on the History of Geographical Explorations. Papers are welcome especially dealing with the following aspects: -Methods of obtaining initial geographical data on regions of exploration. -Discovering 'Others': relationships between explorers and natives, with special attention to geographical perceptions and ideas in different cultures, as well as to cross-cultural exchange of geographic knowledge. -Narratives on discovery and exploration: itineraries, geographical descriptions, travel literature, etc. -Surveying and mapping oceans, lands, air, peoples, boundaries, and states. -Exploration of natural and artificial waterways and their influence on environmental changes. -Historiography and archival studies on geographical explorations.



				Papers on any other topics related either to the History of geographical explorations or, more broadly, to the History of Geography would also be welcomed.
46.	C12.21 Indigenous Knowledges and Peoples' Rights	Indigenizing development for community needs	<p>Evelyn J. Peters</p> <p>Brad Coombes  <a href="mailto:b.coombes@auckland.ac.nz">b.coombes@auckland.ac.nz</a></p>	<p>The term “community development” can refer to many different practices based on varied theoretical frameworks. In general, though, community development attempts to empower individuals and groups to effect positive changes in their community. In Canada, leading Indigenous theorist Gerald Taiaiake Alfred has argued that current approaches to empowering First Nations communities through self-government and economic development in fact entrench both dependency and assimilation. He argues that solutions to Indigenous development lie in decolonization and the regeneration of First Nations communities around land-based cultural practices. Other researchers found that significant opportunities exist for Indigenous people to make collective decisions about matters affecting their lives, particularly in cities. These opportunities come about when Aboriginal people develop organizations to address their own needs and priorities, albeit often within the limitations of existing legislation and programming. This session calls for papers that explore theoretical frameworks for Indigenous community development and/or provide examples of practices adapted to meet the needs of Indigenous communities across different local and national scales.</p>
47.	C12.22 Islands	Island Sustainability	<p>Dr. Andrey Ivanov  <a href="mailto:a.n.ivanov@mail.ru">a.n.ivanov@mail.ru</a></p> <p>Dr. Ganzei Kirill  <a href="mailto:geo2005.84@mail.ru">geo2005.84@mail.ru</a></p>	<p>Island Sustainability is the theme of this session. Research in sustainability science makes it increasingly clear that social and natural dimensions of sustainability are enmeshed in complex webs of co-evolutionary relations and interactions. Many island societies are especially vulnerable to the contingencies of global environmental change – not least climate change and rising sea levels – and global economic forces, e.g. speculative activities associated with financialisation. Islands are at the same time laboratories of cultural, social, economic and environmental experiments in creating conditions for sustainable development, and their diversity provides a wealth of experience to learn from. The aim of this session is to provide a forum for island researchers addressing issues of sustainability to critically engage in on-going debates concerning various perspectives, ranging from the significance of indigenous knowledge and technological innovations, to alternative cultural economies; from environmental policies and programs of action, to social issues concerning the politics of development; and more. The session(s) will consist of papers reporting on research into the topics of island environments, island societies, island economies, island cultural landscapes, and island futures.</p>
48.	C12.22 Islands	Island Development and Global Change	<p>Dr. Andrey Ivanov  <a href="mailto:a.n.ivanov@mail.ru">a.n.ivanov@mail.ru</a></p>	<p>Islands – unique territorial objects upon which peculiar features of the organization of natural and social-economic structures are traced. The most important feature of island territories is their geographic position, isolated from continental land, which causes formation in many respects of</p>





			Dr. Ganzei Kirill <a href="mailto:geo2005.84@mail.ru">geo2005.84@mail.ru</a>	peculiar conditions of their functioning. Isolation in time and space, combined with global, regional and local factors of natural and anthropogenic character, are reflected in all components of island environments and in features of their social, economic and political systems. Isolation of island territories causes high sensitivity to environmental and land use change. Such features allow scientists to consider islands as model objects: laboratories felicitously provided by nature. Island studies address the difficult complex of processes of functioning, necessary to develop projections in order to enhance knowledge on and introduction of the principles of sustainable development. This is especially relevant for promoting frameworks for nature preservation and minimization of social and economic risks. Since 2006, the IGU Commission on Islands has held many scientific events. Geographers from around the world engage in intense discussions on island-related issues, especially how geography can contribute to the management and development of islands in accordance with the 1994 Barbados Action Plan, UNESCO, and other inter-governmental organizations and programs. Discussion of questions of development issues and the current state of island environments, use of natural resources and prospects of social and economic development of islands will be the main subject of work of the Commission on Islands at the Regional Conference of IGU 2015.
49.	C12.23 Karst	Sustainable Development in Karst Environments	Dr Elena TROFIMOVA <a href="mailto:e.trofimova1@gmail.com">e.trofimova1@gmail.com</a>  PhD Jianhua CAO <a href="mailto:jhcao@karst.edu.cn">jhcao@karst.edu.cn</a> OR <a href="mailto:jncaocn@yahoo.com">jncaocn@yahoo.com</a>	The aim of the sessions is to consider theoretical aspects and practical approaches to sustainable development in karst landscapes, which are highly sensitive to human disturbance and degradation. The vulnerability of karst terrains arises from, first and foremost, the rapid transit time of percolating groundwater, the often limited filtration capacity of karst bedrocks, and the considerably specialized subterranean biota. The sessions will focus on the interactions among physical aspects of karst, such as geomorphologic and hydrogeologic processes, human endeavors, and environmental issues in karst. Sustainable development of protected karst areas, including those inscribed on the UNESCO World Heritage List, will be a separate focus of attention.
50.	C12.26 Land Use and Land Cover Change	Problems and consequences of land use/land cover changes	Ivan Bičík <a href="mailto:ivan.bicik@natur.cuni.cz">ivan.bicik@natur.cuni.cz</a>  Elena V. Milanova <a href="mailto:elena.v.milanova@gmail.com">elena.v.milanova@gmail.com</a>	To promote geographical research on land use/cover changes, at scales ranging from the local to the global The study of land use/cover changes should neither stop at local level nor focus solely at the general global level. Contributing in the gap between the two extremes is an important task. Emphasis is hence put on the research projects that can lead to outcomes at the regional, national and international outcomes. The main interest is not the mere description of land use/cover, but the explanation of its changing patterns and qualities, their causes and effects, including the bio-physical and socio-economic dimensions. The generation of concepts and theories is a priority of the Commission. To stimulate the production and



				<p>the use of land-use information bases of both the present and the past  Many land use databases and maps exist in various places and in diverse forms, but they are far from being sufficient for current world needs. We need information on land use/cover changes with considerable spatial accuracy and extent, as well as historical depth. Without adequate information on change, it is difficult to identify drivers, nor is it possible to pursue geographically explicit study of land use/cover changes and their effects. The information bases that the Study Group deals with should be more than mere collection of static land use data or maps. They include wide-ranging information and data on land use/cover changes, their drivers at different levels, including proximate and underlying ones, socioeconomic and environmental effects, and their causal and spatial relations. The Group considers it important to support and cooperate with the other database/mapping programmes. Emphasis will be put not only on recent data, but also on historical materials going back as far as the 18th century, or even further where possible. Technical issues related to data, such as classification and scale of land use/cover changes, are also considered to be important. To coordinate the comparative study and the model study of land use/cover changes and their driving forces in different regions  Detailed case studies in different countries/regions or at different settings provide the bases of understanding land use/cover changes in the corresponding areas. They are not enough on their own, however. A comparative approach is considered to be important, as there are broad similarities between different countries at similar stages of development. In particular, as countries undergo development, they may experience recurring sets of land-use problems. The causes behind the changes are best analysed in a comparative perspective. Comparative study should be integrated with the construction of models. Welcome topics:  Evaluation of the LUCC data, accuracy assessment  GIS as a tool for the LUCC evaluation  Participation on the next Atlas of LUCC development from different parts of the world  Progress in remote sensing technics and methodology  Driving forces in the LUCC changes in different periods of societal development  Care for agricultural and arable land for the future  Agricultural abandonment and increase of unproductive land – problem of developed countries  Unproductive lands – their structure and development  New wilderness – why, where, when</p>
51.	C12.28 Local and Regional Development	Local and regional development in Russia	Michael Sofer <a href="mailto:soferm1@biu.ac.il">soferm1@biu.ac.il</a>	<p>We have a number of issues that we would like to deal with. The first session aims to investigate current issues concerning processes of local and regional development in Russia, a country facing unprecedented challenges. The second group of sessions provide a forum for the study of</p>



52.	C12.28 Local and Regional Development	Local and regional development in the rural space	Michael Sofer <a href="mailto:soferm1@biu.ac.il">soferm1@biu.ac.il</a>	issues related to such matters as local and regional development, reorganization of space, local development in the urban and rural space, and the role of both institutions and agencies in developing and reshaping the settled space. All these issues are studied in developing and developed regions and nations. The perception and attitudes towards local development may be different in different countries. In some places the local and regional development theme is closely related to rural and non-metropolitan development, in other parts of the world it is related to the establishment and development of new towns, to spatial form of entrepreneurship, or to the evolution of new cores of sophisticated high-tech activities. The Commission's aim is to amalgamate such debates within the various sessions.
53.	C12.28 Local and Regional Development	Local and regional development in the urban space	Michael Sofer <a href="mailto:soferm1@biu.ac.il">soferm1@biu.ac.il</a>	
54.	C12.28 Local and Regional Development	Local and regional development: project and planning	Michael Sofer <a href="mailto:soferm1@biu.ac.il">soferm1@biu.ac.il</a>	
55.	C12.30 Mediterranean Basin	Ethnicities, mobilities, changing relationships in the Mediterranean in a global reality	Maria Paradiso <a href="mailto:paradiso@unisannio.it">paradiso@unisannio.it</a>	European as well North African and middle East cities include minorities of different religion who live in ethnic enclaves in these cities or in rural areas. Only few studies are exposing the socio-spatial integration of such groups in society at large. Urgent are also studies about forced mobilities. Of interest at a large is the understanding of integration in a global world in which long distance corporeal and virtual communications may become highly meaningful in people everyday lives; the understanding of dimensions and changes induced by forced mobilities, refugees, asylum seekers. Questions may be posed concerning the structure of socio-spatial orientations of religious minorities in European cities, as well other minorities in the Mediterranean countries, the impact of their socio-spatial orientations on identity, World views, and integration in European societies, North African and Middle East ones; the impacts of disintegrating forces and flows of various nature. The study group that the session is part of aims at unraveling especially the minorities in European-Mediterranean cities socio-spatial structures of involvement in daily lives and its consequences for social integration in European societies, consequences for EuroMed and Med east changing relationships. A special focus on women and children is particularly welcome. COMB session series would like to disentangle some of the official and popular movements, flows, implicit and not-so-implicit trends in MENA transitions after the 2011 democratic movements and reflect on drivers of change and implications of contemporary Mediterranean basin trends. We also welcome papers from a broad spectrum of topics and from a variety of perspectives concerning the Mediterranean Basin.
56.	C12.30 Mediterranean Basin	Regionalisation concepts and practices in 'inner seas' as mobile global realities	Maria Paradiso <a href="mailto:paradiso@unisannio.it">paradiso@unisannio.it</a>  Alun Jones <a href="mailto:Alun.jones@ucd.ie">Alun.jones@ucd.ie</a>	The principal intention of this COMB session is to undertake a preliminary exploration of new concepts and practices in regionalization approaches to 'inner seas' and disentangle some of the key drivers of socio-spatial change. We welcome papers on the Mediterranean and other 'inner seas' (e.g Baltic, Black Sea, Caribbean, East Asia). As Steinberg stated (2009) the construction of the sea as an 'outside' space of mobility is a critical element



				<p>in modern spatial politics through its intrinsic relations with 'inside' space. This COMB session will explore some of the official and popular movements, flows, implicit and not-so-implicit trends in 'inner seas'.</p> <p>The topics of regionalization, cooperation and regional challenges will be examined from a critical reflexive perspective. The session is potentially attractive to a broad spectrum of research topics and from a variety of methodological perspectives: migration and virtual/corporeal mobilities, spatialities and phantasies of macro-regional structuring; diversity and inclusion, interfaith (included the Muslims one) relations and their implications in the 'region'; crisis and impacts at different scales and of various nature (hegemonic, fiscal, climate impacts etc.). Unconventional views stemming from, for example, the spatialities of affect and emotion and reflections on reconciliatory practices are also invited, for instance: those originating in the arts, cyberspace interactions, activism, NGOs . Of overriding interest is the understanding of regionalisation in a global mobile world in which long distance corporeal and virtual communications may become highly meaningful to peoples' everyday lives; where the notions of borders and closed areas are challenged and 'inner seas' become significant for wellbeing and prosperity and, simultaneously, as locations of forced mobilities, environmental degradation, and economic-political-ethnic ruptures. This call raises the issues of citizenship, problématiques of multiculturalism, diversity, integration, affect, emotion, marginalization, exclusion, hegemonic attempts, solidarity, considered at different geographic scales, national, regional and local and in networks. It specifically raises the question of new regionalisms and concepts of regionalisation. We strongly welcome papers on 'inner seas' from scholars working from various disciplinary perspectives and within and beyond the Mediterranean Basin.</p>
57.	C12.32 Mountain Response to Global Change	Mountain regions in context of Global Change; adaptation, new approaches and role of science	Yuri Badenkov <a href="mailto:yubaden@mail.ru">yubaden@mail.ru</a>	<p>The issue of research findings integration in development practice of sustainable mountain development and adaptation to Global Change will be a key theme of session. The aim of session – discussions/evaluation of modern approaches according Rio+20 Declaration "Future we want" and UN Sustainable Development Goals Plan for mountains. Diversity of approaches and best practice transformation research in practice based on transdisciplinarity principles should be presented and discussed. Outcomes of general discussion should be presented in format of IGU Mountain commission Moscow Declaration – Sustainable Mountain Development Goals in Global Change Times: Challenge and Responsibility of Science.</p>
58.	C12.33 Political Geography	Bordering Eurasia: Politics, Power, and Political Geography	Paul Richardson <a href="mailto:Paul.richardson-3@manchester.ac.uk">Paul.richardson-3@manchester.ac.uk</a>	<p>This panel aims to capture the conceptual innovations coming from the field of border studies. The panel presents a number of case-studies drawn from across Eurasia to demonstrate how the study of borders offers critical new insights into state-society relations, which is in turn reframing debates about notions of power and identity. Across Eurasian space we are seeing</p>



			<p>Akihiro Iwashita  <a href="mailto:akotaro@msi.biglobe.ne.jp">akotaro@msi.biglobe.ne.jp</a></p>	<p>the simultaneous materialization and dematerialization of borders, which are consolidating and fracturing state space; providing spaces for new identities to emerge; and reconfiguring geopolitics at a variety of different scales. This panel brings together scholars researching disparate corners of Eurasia in order to stimulate a lively debate on the way in which various global and local imperatives are remaking borders. It is this interface between global flows/processes and regional circumstances, which makes border studies one of the most relevant and dynamic streams of political geography in the twenty first century.</p>
59.	C12.33 Political Geography	For Kropotkin	<p>Anthony Ince  <a href="mailto:Anthony.ince@humangeo.su.se">Anthony.ince@humangeo.su.se</a></p> <p>Simon Springer  <a href="mailto:springer@uvic.ca">springer@uvic.ca</a></p>	<p>The recent publication of Pyotr Kropotkin's 1887 essay <i>The Coming Anarchy</i> in English marks a continuation of Kropotkin's re-emergence within popular and academic debates regarding the future trajectory of society. As a geographer, Kropotkin's scholarly works such as <i>Fields, Factories and Workshops</i> (1898) and <i>Mutual Aid</i> (1902) have had profound impacts on the origins of our discipline and therefore the shape of the geographical imagination itself. In recent years, we have seen an emergence of interest in anarchism in geography, with the deployment of anarchist ideas and theories to innovatively address a wide range of scholarly and societal questions (see, for e.g. Clough and Blumberg 2012; Ince 2014; Springer 2013; Springer et al. 2012).</p> <p>The recent explosion of anarchist-geographic scholarship is a testament to the potential of anarchist thought, yet so far relatively little work has been done to explore the ideas of particular thinkers in detail. It is in this spirit that we seek to investigate the contributions of Kropotkin's work, in Moscow, the city of his birth and burial. Kropotkin's works expertly critiqued the full range of societal problems contemporary to him, including Social Darwinism, colonialism, and industrial capitalism. His writings drew together social, economic, and ecological realms, articulating an explicitly political form of geographical scholarship that foregrounded cooperation, participation, and self-organisation over the prevailing elite priorities of competition, hierarchy, and privilege.</p> <p>While it is clear that Kropotkin's ideas are nowadays rarely explored in depth, in these times of global conflict and crisis their re-awakening could well prove to be fruitful in answering some of the key questions facing us. A range of global crises currently engulf contemporary society, and long-term solutions to ongoing geopolitical conflicts, exploitative neoliberalisation, unsustainable resource management, and the erosion of democracy, appear not to be forthcoming within existing societal structures. This panel therefore invites a reawakening of Kropotkin's ideas, in his home city, as a possible source of effective and just solutions to these pressing concerns.</p> <p>In reigniting Kropotkin's ideas, we do not seek to revert to 'old fashioned' approaches to geographical scholarship, but invite contributions that draw</p>





				<p>productively from his wide-ranging conceptual and theoretical toolkit in order to address contemporary questions in innovative ways. We take as a starting point <i>The Coming Anarchy</i> as a key text that articulates Kropotkin's anarchist geography as a form of open, unfolding, and engaged scholarship that promotes direct confrontation with, and a radical departure from, dominant assumptions about both anarchism and the future of social organisation.</p> <p>Presentation topics are welcomed on any aspect of Kropotkin's thought and legacy, although we especially encourage contributions that explicitly draw inspiration from themes and ideas within Kropotkin's essay <i>The Coming Anarchy</i>.</p>
60.	C12.33 Political Geography	Regional integration in Southern Africa, changing socioeconomic balances in Africa and prospects for continental integration	<p>Inocent Moyo  <a href="mailto:minnoxa@yahoo.com">minnoxa@yahoo.com</a></p> <p>Christopher C. Nshimbi</p>	<p>In 1991, the African Union (AU) through the Treaty Establishing the African Economic Community (AEC) made a commitment towards integrating the African continent. In the AU's integration agenda, the establishment of the AEC, is the ultimate expression and manifestation of the integration of the African continent. This integration is to be founded on eight regional economic communities (RECs) of which the Southern African Development Community (SADC) is one. Ideally, successful integration in and of the respective RECs should translate into the success of the continental integration agenda. Africa on the other hand has in the past two decades experienced renewed growth, acquiring tags such as the rising sun. Therefore, this session proposes to discuss the challenges, prospects and opportunities that SADC has against its objective of an integrated southern Africa. As one of the pillars of the proposed AEC, what are the economic, social, cultural and environmental challenges and trajectories of integration at the regional level in southern Africa? For example, given the increasing levels of migration and the corresponding desire by some states to tighten cross border movement, is the idea of integration feasible, let alone sustainable? Is a completely or partially integrated SADC region even possible? What can SADC learn from the other regional economic communities on the African continent and other parts of the world? What issues does the SADC region need to address in order to enhance integration? How and does SADC relate with other RECs in Africa and outside in view of the continental integration agenda? What can other RECs in Africa and other parts of the world learn from the SADC experience? What can SADC learn from other regions?</p>
61.	C12.33 Political Geography	Russian geopolitics and the former Soviet countries	<p>Takashi Yamazaki  <a href="mailto:yamataka@lit.osaka-cu.ac.jp">yamataka@lit.osaka-cu.ac.jp</a></p>	<p>Even in the post-Cold War era, Russia has been one of the great powers that can have an influence on the world affairs. The emergence of the so-called "New Cold War" might be a possible scenario for the world's future. However, Russia has also faced geopolitical instabilities with former Soviet countries. Recent incidents in North Caucasus and Crimea clearly indicate that Russia's territorial integrity and geopolitical stability have been constantly disturbed. This session aims at understanding the current</p>



				geopolitical situation of Russia and its neighboring countries and viewing the prospect of the region in the coming years.
62.	C12.33 Political Geography	Borders and illegalities	<p>Adriana Dorfman <a href="mailto:adriana.dorfman@ufrgs.br">adriana.dorfman@ufrgs.br</a></p> <p>Elena dell'Agnese <a href="mailto:elena.dellagnese@unimib.it">elena.dellagnese@unimib.it</a></p>	<p>Since the maritime expansion till present times, the world territories have been consistently organized and reorganized by several agents, much in order to meet the demands of the capitalist system. Nation States, international firms and the various forms of regional integration are the main agents of the establishment of these territories and their limits, which can also be represented as sets of norms and laws spanning over space and separating national / regional productive structures and markets. The process of transnationalization and formation of world markets generated a multiplication of cross-border networks. The contingent roles of the territory and of its borders are a necessary condition for these interactions and stir up the competition between the different systems of legal norms built by States and frequently induced by large firms. This competition is manifest in the selective barriers and fluidity in the border, materialized in border regions, but also in other places such as ports and airports. The central role of the state in representing space frequently leads to a state-centered and prejudiced view against border regions, depicting them as deviant places which deserve growing structures of control. Thus, crime and illegalities are more often detected in these regions. At the same time, borderlands are places where illegal practices such as smuggling can serve as a day-to-day supply strategy or as an alternative occupation and income generation source. This session proposes discussions that range from more situated studies about the practices of smuggling in local scale to wider analyses of the role of the borders in revealing the changing geopolitical architecture of the world. Thus, we wish to explore questions such as: Who decides the content of the borderities, defining who or what can cross from one national territory to another? To whom serve the laws and the fight against this or that transit? Who profits from controlling borders and its transits? Where are profits of transit and control invested? What is the legal content of borders and of how does quotidian life of border dwellers relates to it? How are these transits and their actual control?</p>
63.	C12.33 Political Geography	The critical geopolitics of food	<p>Elena dell'Agnese <a href="mailto:elena.dellagnese@unimib.it">elena.dellagnese@unimib.it</a></p>	<p>and recipes are considered to be typical of a given national cuisine. "National restaurants", with their typical decorations and national flags, are scattered all over contemporary urban landscapes, in the general assumption that their menus are typical of a whole country (while, at the best, they are typical of a given part of it, or at the worst, are the product of a local transculturation: indeed, nothing is more "colonial", even in its name, than the <i>rijsttafel</i> served in "Indonesian" restaurants all over the world). Sometimes, eating a given product, or cancelling it from the menu, may even be a political choice. In moments of political tension, not only eating, but even naming a certain food may represent a sort of declaration. A traditional recipe, supposedly belonging to a local folklore, may also be</p>



				<p>turned into a practice of resistance. In this perspective, a people or a community, which feel to be "colonized" by another one, may stick to its own traditional cuisine, performing a sort of political resistance in the kitchen. In the same perspective, also eating "slow" and "local", instead of "fast" and "global, may respond more to a political choice, than to a simple question of diet. On the other side, sometimes the colonized acquire easily the eating habits of the colonizer, or try to reinvent the traditional recipes, in order to please the new imported tastes. The capacity of food to acquire an identity flavor can easily turns it into an ethnic marker as well: it may represent a connecting link inside ethnic diasporas, a practice of belonging to be performed - at least- in festivities. "Foreign" food can also acquire high visibility into the urban landscape, because of its specific smells, preparation practices (such as halal butcheries) and places of consumption. Cultural stereotypes pertaining with food, eating habits and table manner can be vehiculated by speaking, and writing, about food, in books of recipes, TV shows, magazines and novels. But also fiction movies can offer, on this perspective, a good standpoint. Indeed, eating habits and etiquettes are frequently used by popular culture in order to represent otherness, identity or just the need to be together. Finally food can be territorialized strategically to advance economic interests, such as in the geographical indication for wines and cheese that originated in French laws, also common in Italy and adopted more recently in the European Union protected designation of origin (PDO). Likewise food can be used to advance (rural and) gastronomic tourism and health regulation can be used to protect national producers against importation. European regulation in that domain has also pushed for harmonization with cultural misunderstandings and resentment as side effects. Papers pertaining the following topics will be welcome: Food and banal nationalism, Food and ethnic and religious identities, Eating habits and practices of resistance, Trans-cultural recipes and post-colonial issues, Stereotypes on the menu, Food as a discourse and practice in popular geopolitics, Performing food, Food as health construction, Politics of food tourism, Political economies of food regulation.</p>
64.	C12.33 Political Geography	Political geographies of multilingualism	<p>Virginie Mamadouh  <a href="mailto:v.d.mamadouh@uva.nl">v.d.mamadouh@uva.nl</a></p>	<p>Dealing with linguistic diversity is a particular challenge for political institutions that want to promote smooth communication between state and citizens and between political and economic actors on their territory. Territorial arrangements based on territorial monolingualism as a way to enhance both social cohesion and institutional performance have often been adopted, in particular in Europe where the principle of "one state, one nation, one language, one territory" has been widely endorsed and implemented both by states pursuing nation building policies and by nationalist movements advancing linguistic argument to establish their own state. Monolingualism has often been seen as a sine qua non for the</p>



				functioning of the public sphere deemed necessary for a democracy to function. Traditionally this has led to heated conflicts about linguistic justice, linguistic rights, regimes and policies in areas where people were using several languages next to each other and relations between linguistic groups were strained. In recent decades, many globalization processes, most notably transnational migration, have increasingly boost linguistic diversity (both in terms of the numbers of multilingual persons and the numbers of languages used in any specific place), especially in cities and poses an increasingly pressing challenge to political institutions (state and non-state) to accommodate it. This session aims at advancing new political geographies of linguistic diversity, by examining the geographical aspects of the ways it is represented and the ways it is practiced and performed or opposed. We welcome papers dealing with the conceptual methodological and theoretical aspects of political geographies of multilingualism, with cases studies including historical cases, and with comparative studies, at all scale levels (local, regional, national, transnational and global).
65.	C12.34 Population Geography	Interactions between human processes, population changes and the environment	<p>Daniel Ervin <a href="mailto:dervin@umail.ucsb.edu">dervin@umail.ucsb.edu</a></p> <p>Jessica Marter-Kenyon <a href="mailto:jessica.marterkenyon@gmail.com">jessica.marterkenyon@gmail.com</a></p>	This session will feature research about the impact of human processes on the environment. We will focus on coarse-scale data gathered from satellite images, population surveys, and similar data measures in order to explore the complex dynamics between human population changes, human movement, agriculture, and the characteristics of the landscapes they inhabit.
66.	C12.34 Population Geography	Processes of population change and migration	<p>Jianfa SHEN <a href="mailto:jianfa@cuhk.edu.hk">jianfa@cuhk.edu.hk</a></p> <p>Yu ZHU <a href="mailto:zhu300@fjnu.edu.cn">zhu300@fjnu.edu.cn</a></p>	Different countries, regions and cities are experiencing different paces and patterns of population change and migration. Some countries and regions are experiencing rapid population growth and urbanization while others are facing population decline. They are driven by profound social and economic changes in the recent decades and the demographic change will also affect social and economic development in various parts of the world. There is continued need to examine the divergent population change and migration processes, as well as policy implications. The aim of this session is to examine emerging trends of population change and migration in different countries, regions and cities. Each paper can focus on a particular case and all participants can exchange and compare the processes, patterns and policy options of population change and migration in different parts of the world.
67.	C12.34 Population Geography	Migrating out of Poverty in Asia	Brenda Yeoh <a href="mailto:geoysa@nus.edu.sg">geoysa@nus.edu.sg</a>	An on-going tension exists around migration as a strategy for development. While some argue that labour migration is a means of improving livelihoods, others claim the need to migrate is necessitated precisely due to conditions of poverty and lack of development. Nevertheless international migration has become increasingly significant in the Asian region as people respond to the global demand for jobs that include production, construction, domestic and care-related work. It has been well established that labour migration does not just result in economic gains,



				but entails a rather complex set of 'costs' that include but are not limited to prolonged separation from family and the potential for abuse and exploitation. This session seeks to ask critical questions about labour migration in the context of poverty alleviation including: How do migrants themselves weigh up the financial and social 'costs' of migration against the potential 'gains' through remittances? To what extent do pre-existing conditions at the point of migration, such as the stability of migrant families' financial resources, influence what might be considered a 'successful migration? How do particular migration regimes, especially those that are highly dependent on the role of recruitment and placement agencies and other commercial intermediaries, influence migrants' potential to 'migrate out of poverty'? What are some of the policy, as well as legal and institutional frameworks that need to be deployed by both sending and receiving countries in order for migration to become a sustainable development strategy for migrant families in Asia?
68.	C12.34 Population Geography	Migration and Climate change an overview with a specific focus on Russia and neighboring countries	Etienne Piguet <a href="mailto:Etienne.piguet@unine.ch">Etienne.piguet@unine.ch</a>	The amount of empirical research focusing on the link between environmental degradation and forced migration in order to forecast the migratory consequences of global warming has risen significantly in recent years. The variety of empirical methods used by researchers is impressive, ranging from qualitative interviews and historical analogies to questionnaire surveys and highly sophisticated statistical methods. This session will attempt at an overview of recent empirical results with a specific focus on Russia and neighboring countries.
69.	C12.34 Population Geography	Geographies of International Student Mobility II: The Roles of Immigration Policies, Universities and Recruitment Agencies	Yvonne Riaño <a href="mailto:yvonne.riano@unine.ch">yvonne.riano@unine.ch</a>  Darren Smith <a href="mailto:D.P.Smith@lboro.ac.uk">D.P.Smith@lboro.ac.uk</a>	The numbers of internationally mobile students have dramatically increased in recent decades. The forces that shape international student mobility have been a central preoccupation among scholars in recent years. The aim of this session is to explore the role that external agents, such as governments, universities and recruitment agencies play in facilitating or restricting the cross-border mobility of international students. The session will reflect upon the following questions: How do immigration policies affect the movement of students across national borders? Are immigration policies geared to attracting the largest possible numbers of international students or rather to restrict the numbers of student flows? What are the interests and strategies of Universities towards international students? Are educators and administrators working in all cases towards eliminating barriers to student mobility? To what extent have recruitment agencies become a central agent in recruiting international students for universities? A central premise of this session is that there is no homogeneous answer to the former questions. Answers will depend to a larger extent on the individual national contexts, and the different degrees of importance assigned by individual national governments and universities to international student flows. In Europe alone there is no homogeneity across national states, and even policies within individual states can





				sometimes be quite contradictory. Gaining a cross-national and comparative perspective is thus much needed at the present time. This session, therefore, welcomes empirical papers and/or theoretically driven presentations inspired by, but not limited to the former questions.
70.	C12.35 Sustainability of Rural Systems	Strategies to create Health, Wealth and Happiness in the Rural Areas	<p>Ana Maria Firmino <a href="mailto:am.firmino@fcsch.unl.pt">am.firmino@fcsch.unl.pt</a></p> <p>Doo-Chul Kim <a href="mailto:kim@cc.okayama-u.ac.jp">kim@cc.okayama-u.ac.jp</a></p>	In the last decades many changes in the world have affected the way we live and the values that we praise. These changes are mainly environmental, political, societal and economic. All together or per se they are contributing to a different perception of the sustainability of the rural systems and to different landscapes. - How effective have been policies to promote a smart, sustainable and inclusive development as divulged by the Europe 2020 strategy, in order to achieve employment, innovation, education, poverty reduction and deal with climate and energy? - How do alternative models such as permaculture prove to be resilient and offer solutions that might cope with most of the problems faced by society nowadays? - In short what strategies have been developed either formally or informally in order to create new opportunities that might achieve Health, Wealth and Happiness in the rural areas are the challenges that we launch to you.
71.	C12.35 Sustainability of Rural Systems	Globalization and rural sustainability	<p>Doo-Chul Kim <a href="mailto:kim@cc.okayama-u.ac.jp">kim@cc.okayama-u.ac.jp</a></p> <p>Ana Maria Firmino <a href="mailto:am.firmino@fcsch.unl.pt">am.firmino@fcsch.unl.pt</a></p>	Globalization offers both opportunities and challenges to rural societies. The opportunities include improved access to information and the creation of employment based on new technologies at greater distances from major centers of economic activity. The physical isolation of many rural areas is also now offset by improved transport systems. The promotion of places and their products is facilitated by information and communication technologies and in the process new markets are accessed. A new agribusiness and international trade on local agricultural systems would be one of these opportunities. Papers are invited on themes dealing with opportunities and challenges in the context of rural sustainability under the following headings: <ul style="list-style-type: none"> <li>•Rural-urban interaction and social networks</li> <li>•Role of local actors and institutions in rural governance processes.</li> <li>•Agribusiness, commodity markets and challenges for rural sustainability</li> <li>•Competing land uses, multi-functionality and dynamism of rural areas</li> <li>•Geographic mobility and its impact on rural community structure</li> <li>•Depopulation, ageing and rural decline and rural tourism</li> </ul>
72.	C12.38 Transport and Geography	Geographical Impacts of Transport and Regional Development	<p>Andrew Goetz <a href="mailto:agoetz@du.edu">agoetz@du.edu</a></p> <p>Becky Loo <a href="mailto:bpyloo@hku.hk">bpyloo@hku.hk</a></p>	Investments in transport infrastructure in cities, states, and regions throughout the world are having significant impacts on development patterns including a wide variety of economic, social, and environmental effects. The evaluation of transport infrastructure projects across these dimensions requires a geographical approach that incorporates diverse methodologies of analysis. This session invites papers on this theme to investigate the effects of transport projects within and across different geographical regions of the world, and/or at different scales of analysis



73.	C12.38 Transport and Geography	Transport development in regions of high latitudes or high altitude	<p>Yves Boquet <a href="mailto:yves.boquet@u-bourgogne.fr">yves.boquet@u-bourgogne.fr</a></p> <p>Anastasia Lomakina <a href="mailto:Lomakina.lomakina@ya.ru">Lomakina.lomakina@ya.ru</a></p> <p>Vladimir Shuvalov <a href="mailto:veshuvalov@mail.ru">veshuvalov@mail.ru</a></p>	<p>Northern, Arctic or high-mountain regions and countries are all characterized by tough natural conditions impeding both their development and accessibility. However, their incorporation into a country's economy together with inclusion into the global economy, is often a priority in economic and regional development policies. Accessibility through transportation facilities and infrastructures is essential to overcome both isolation and remoteness of these areas. In turn, development in general always implies increases in ecological pressures, a topic of interest for geographers and local communities, together with preoccupations about peripheral location and somewhat isolation of these regions, in particular due to the fragile nature of northern ecosystems. Geographical expertise for transport system and territories interconnection includes an ample variety of methodology and methods. All proposals about transport systems' organization in remote regions are invited to participate in the session.</p>
74.	C12.38 Transport and Geography	Russian transport issues : cities, regions and neighboring countries	<p>Yves Boquet <a href="mailto:yves.boquet@u-bourgogne.fr">yves.boquet@u-bourgogne.fr</a></p> <p>Anastasia Lomakina <a href="mailto:Lomakina.lomakina@ya.ru">Lomakina.lomakina@ya.ru</a></p> <p>Vladimir Shuvalov <a href="mailto:veshuvalov@mail.ru">veshuvalov@mail.ru</a></p>	<p>Transport infrastructure is that very system forming and organizing the economic area: connecting cities, uniting regions, integrating the area of a country. In the same time cross-border transport infrastructure provides functions of contact or barrier for territory. Transport geography includes an ample variety of methodology and methods for studying both selected elements (branches, junctions, lines, networks etc) of transport systems and their different topographical levels (cities, regions, countries etc). All the reports researching different aspects for different levels of transport systems' organization and functioning both in Russia and in its neighboring countries are invited to participate in the section.</p>
75.	C12.39 Urban Commission: Urban Challenges in a Complex World	Historical Cities: activities and management through a comparative perspective East/West-North/South	<p>Rubén Camilo Lois González <a href="mailto:rubencamilo.lois@usc.es">rubencamilo.lois@usc.es</a></p> <p>Yamilé Pérez Guilarte <a href="mailto:yamypguilarte@gmail.com">yamypguilarte@gmail.com</a></p>	<p>Due to its multifunctionality, historical cities are areas that require special attention in territorial, tourist and cultural planning and management. All of them face a common challenge: preserving a universal heritage and ensure sustainable coexistence between different uses (residential, tourist, religious, administrative or business). In addition, historical cities are a tourist attraction <i>per se</i>; generating major visitor flows which added to the local population can create crowd situations. In some cases, these urban spaces have become true theme parks, well preserved but devoid of life and economic activities, in addition to tourism, with the consequent loss of identity. In this context, the objective of this session is to address the problem of planning and management in historical cities throughout the world. The focus will be a comparative between eastern and western historical cities; a perspective north-south; but also a comparison among developed, emerging and underdeveloped countries. The session will address a territorial, cultural and tourist approach through five main themes:</p> <ol style="list-style-type: none"> <li>1. Integration of tools for urban, tourist and heritage planning.</li> </ol>



				<p>2. Spatial management of historical centres and the integration to their dynamics of surrounding urban areas.</p> <p>3. Status of the product linked to tangible and intangible heritage in the global tourism scenario. New perspectives in creating innovative tourist products.</p> <p>4. Creativity as a driver of the emergence of attractive spaces for residents and visitors.</p> <p>5. Integration between historical cities: national, regional and international networks of collaboration.</p>
76.	C12.39 Urban Commission: Urban Challenges in a Complex World	Complex Urban Systems	<p>Celine Rozenblat <a href="mailto:Celine.rozenblat@unil.ch">Celine.rozenblat@unil.ch</a></p> <p>Daniel O'donoghue <a href="mailto:daniel.donoghue@canterbury.ac.uk">daniel.donoghue@canterbury.ac.uk</a></p>	<p>Urban systems have seen radical changes in the last decades and will continue to do so. How are the various national, continental and global urban systems changing - in such features as city size, economic specialization, migration, interactions through social, economic, communication and transport networks and control functions? What processes and differential development paths are involved and how have different government policies affected these changes? Previous urban commissions have produced a large body of work on the urban systems of individual countries. This work will be extended to incorporate updated national and international comparisons and the accelerated growth of a limited number of global command centres in the highly connected world of electronic communications, finance, trade, and rapid travel. In addition, we must seek solutions for those cities that are left behind by these changes.</p>
77.	C12.39 Urban Commission: Urban Challenges in a Complex World	Technological innovations and creative activities in cities	<p>Celine Rozenblat <a href="mailto:Celine.rozenblat@unil.ch">Celine.rozenblat@unil.ch</a></p> <p>Daniel O'donoghue <a href="mailto:daniel.donoghue@canterbury.ac.uk">daniel.donoghue@canterbury.ac.uk</a></p>	<p>Urban economies are evolving quickly, with the growth of the "service" sectors and new activities in science, technology, communication, media, design and art. How do these activities specialize within some cities and how do these new "clusters" integrate within urban economic, social and environmental development? Can we quantify "smart cities" or specific urban "creative activities"? Can one identify life cycles of cities in these economic trends? Does this growth benefit the entire city or does it increase polarisation and fragmentation in the development of urban areas? Does it alter the shape and structures of urban areas and does it lead to new forms of urban societies?</p>
78.	C12.39 Urban Commission: Urban Challenges in a Complex World	Contested Social Spaces	<p>Celine Rozenblat <a href="mailto:Celine.rozenblat@unil.ch">Celine.rozenblat@unil.ch</a></p> <p>Daniel O'donoghue <a href="mailto:daniel.donoghue@canterbury.ac.uk">daniel.donoghue@canterbury.ac.uk</a></p>	<p>The increasingly multi-layered social and ethnic character of cities has led to more intricate life spaces within cities, and potential conflicts among the various groups. Since many multinational communities, either diasporas or cosmopolitans, combine transnational links and strong intra-community cohesion, they may threaten other communities. How can we measure these new patterns and changes and make effective international comparisons? Where and when do conflicts emerge? How can differences between the various actors in these spaces be reconciled, ensuring that local communities are themselves empowered, rather than simply passive</p>



				recipients of change from forces beyond their control, and that all groups are able to live in tolerance with one another?
79.	C12.39 Urban Commission: Urban Challenges in a Complex World	Creating Sustainability	<p>Celine Rozenblat <a href="mailto:Celine.rozenblat@unil.ch">Celine.rozenblat@unil.ch</a></p> <p>Daniel O'donoghue <a href="mailto:daniel.donoghue@canterbury.ac.uk">daniel.donoghue@canterbury.ac.uk</a></p>	Can sustainability be tackled at the urban scale? What progress is being made by <i>cities</i> around the world in the development of new programmes and policies to create more environmentally and socially sustainable areas? How can these solutions be evaluated at various spatial scales? What are the emerging best practices in cities, from smart growth to green solutions etc., and what are the problems that restrict progress in implementing these more effective policies?
80.	C12.39 Urban Commission: Urban Challenges in a Complex World	Dilemmas of Aging Cities	<p>Celine Rozenblat <a href="mailto:Celine.rozenblat@unil.ch">Celine.rozenblat@unil.ch</a></p> <p>Daniel O'donoghue <a href="mailto:daniel.donoghue@canterbury.ac.uk">daniel.donoghue@canterbury.ac.uk</a></p>	A serious new problem has emerged in some cities of the developed world. The declining birth rate of industrialized countries is creating many settlements with increasingly aging populations. What are the effects of this trend upon the functions and character of these cities, especially their infrastructures and levels of social provision? What policies are emerging in cities around the world affected by this problem to cope with these changes? How can the so-called "shrinking cities" manage their future?
81.	C12.39 Urban Commission: Urban Challenges in a Complex World	Increasing Insecurity	<p>Celine Rozenblat <a href="mailto:Celine.rozenblat@unil.ch">Celine.rozenblat@unil.ch</a></p> <p>Daniel O'donoghue <a href="mailto:daniel.donoghue@canterbury.ac.uk">daniel.donoghue@canterbury.ac.uk</a></p>	In the past, cities survived because of their ability to create secure environments for their citizens. In many contemporary cities crime rates, anti-social behaviour and ethnic conflict threaten to make them less liveable, despite higher levels of surveillance, and apparent solutions such as gated communities, which create more private spaces and segregation. Part of the explanation for these trends may be unequal income distributions in which the lower income groups struggle to survive or maintain their position and the wealthy create exclusive areas. Several key problems emerge from these changes. How we can best conceptualize and measure these new forms of insecurity and more compartmentalised spaces? How do we make international and national comparisons of the increasing inequalities within cities and the levels of insecurities? Can we apply the best practices of cities that have successfully overcome these problems to other cities and societies, as well as linking these problems to our understanding of the new forms of urban social spaces?
82.	C12.39 Urban Commission: Urban Challenges in a Complex World	Urban Heritage and Conservation	<p>Celine Rozenblat <a href="mailto:Celine.rozenblat@unil.ch">Celine.rozenblat@unil.ch</a></p> <p>Daniel O'donoghue <a href="mailto:daniel.donoghue@canterbury.ac.uk">daniel.donoghue@canterbury.ac.uk</a></p>	The distinctive identity of many cities and societies depends upon their historical heritage, as expressed in their built fabric. How can these identities be understood and interpreted? What are the policies that support the preservation of these heritages, yet still provide liveable and affordable spaces in these areas, instead of allowing historic areas and city centres to be overwhelmed by homogenised tourism?
83.	C12.39 Urban Commission: Urban Challenges in a Complex World	Urban governance	<p>Celine Rozenblat <a href="mailto:Celine.rozenblat@unil.ch">Celine.rozenblat@unil.ch</a></p>	It is an unfortunate, but undeniable, fact that most large urban agglomerations are not permitted to govern themselves. Control over revenues and investments is shared with other levels of government and/or fragmented among dozens of small municipal units within the metropolitan area. Inevitably these political arrangements affect the spatial structure of infrastructure and public services, including planning. We must explore the



			Daniel O'donoghue <a href="mailto:daniel.donoghue@canterbury.ac.uk">daniel.donoghue@canterbury.ac.uk</a>	spatial issues that detract from urban governance, and investigate the utility of emerging administrative solutions seen in many countries, such as the 'new regionalism' that seeks to provide a new spatial solution to the provision of services.
84.	C12.39 Urban Commission: Urban Challenges in a Complex World	Western-Eastern cities	Celine Rozenblat <a href="mailto:Celine.rozenblat@unil.ch">Celine.rozenblat@unil.ch</a>  Daniel O'donoghue <a href="mailto:daniel.donoghue@canterbury.ac.uk">daniel.donoghue@canterbury.ac.uk</a>	The aim of this session is to develop comparative studies on Eastern/Western cities and urban systems. Can we identify similar processes of diffusion all over the world whether the origin of cities is Western or Eastern? Can we identify stages or processes, either unique or systematic, from existing approaches to development in Western or Eastern cities or should we investigate radically different models of development? Papers should address these issues, exploring one or several of the following areas: economy, innovation, social spaces and segregation, urban sprawl, sustainability, governance.
85.	C12.39 Urban Commission: Urban Challenges in a Complex World	Post-socialist cities	Celine Rozenblat <a href="mailto:Celine.rozenblat@unil.ch">Celine.rozenblat@unil.ch</a>  Daniel O'donoghue <a href="mailto:daniel.donoghue@canterbury.ac.uk">daniel.donoghue@canterbury.ac.uk</a>	Continuing the work of the Poznan and the Krakow IGU-Urban commission 2014 meetings, we propose a deeper focus on specific challenges of post-socialist cities. How have cities made the transition in terms of economy and employment (industrial clusters, services, innovation diffusion in urban systems), social inequality, environment and sustainability, and governance. The success of the session, building on the two previous sessions of 2014, will probably lead to a published book on this specific thematic, coordinated by the IGU Urban commission.
86.	C12.39 Urban Commission: Urban Challenges in a Complex World	Urban Commission: Urban Challenges in a Complex World	DR. (Ms.) Anjana Mathur Jagmohan <a href="mailto:jmanjana@yahoo.com">jmanjana@yahoo.com</a>	Urban world today is undergoing rapid transformations. Cities are eating up the spaces around them in manners unprecedented. Along with the changes in land use, it is the skylines and landscapes, which are fast changing. There is an urgent need to delve into the changes – reasons, types, and ways to manage the urban systems in a planned and sustainable manner. It is also imperative that the special features of an urban landscape are not lost in planning and the specific <i>raison de etre</i> of a city remains undiluted- the aim of the city to provide secondary and tertiary work to those who seek work. At the same time, the cities have to be such that the needs for the future are predicted today and infrastructure provided for the same. The session can be divided into: Urban spaces in the Developed world, Urban studies of the Developing World, Green cities, Lessons from the past for future developments, Planned cities – case studies, Technology and cities, Gendered urban spaces, Smart cities, Cities for the new generation, Cities in tiers
87.	C12.41 Geomorphology and Society	Geomorphology and Society	Prof. Jiun-Chuan Lin <a href="mailto:jclin@ntu.edu.tw">jclin@ntu.edu.tw</a>  Su-Min Shen <a href="mailto:smshe@ntnu.edu.tw">smshe@ntnu.edu.tw</a>	The aim of the Commission shall be to contribute to strengthening collaborative work among scientific geomorphology networks to advance knowledge and to fostering capacity building for young researchers. 1) To promote international collaboration in geomorphology within the IGU community and other international bodies related to the geomorphology field.



				<p>3) To support applied geomorphology research for building gateways with policy makers and societal engagement.</p> <p>4) To stimulate the interaction among young scientist and the consolidation of leading working teams in different aspects of geomorphology.</p> <p>This session would like to invite those who are interest to this topic and the mission of the commission.</p>
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## 2. Session organized by more than one IGU Commission / Task Force

Sessions are listed following the order of commissions' number. In each case the lower commission number goes first.

No	Commission / Task Force	Session title	Chairperson (s)	Session outline
1.	C12.01 Applied Geography AND C12.28 Local and Regional Development	Applied local and regional development	Eli Stern (Applied Geography) <a href="mailto:elistern@bgu.ac.il">elistern@bgu.ac.il</a>  Michael Sofer (Local and Regional Development) <a href="mailto:soferm1@biu.ac.il">soferm1@biu.ac.il</a>	The joint session with Applied Geography (C12.01) expect papers on the broad issue of applied issues related to local and regional development. We would like to explore issues concerning the effects of globalization, place-based and local actors' initiatives, infrastructures and regional development, regional and social disparities, as well as local governments as agents of change. We would like to have our sessions in the first two days – 17-18.8.2015. 1. Sessions titles C12.28 Commission on Local and Regional Development Local and regional development in Russia, Local and regional development in the rural space, Local and regional development in the urban space, Local and regional development: project and planning
2.	C12.06 Cold Region Environments AND C12.12 Geographical Information Science	Organization and visualization of polar data	Prof. Fraser Taylor <a href="mailto:fraser.taylor@carleton.ca">fraser.taylor@carleton.ca</a>  Andrey Medvedev <a href="mailto:a.a.medvedeff@gmail.com">a.a.medvedeff@gmail.com</a>	Problems solution of ecological and geographical research in the Arctic is inconceivable without science and information systems, without the analytical framework of the basic sciences and broadening its applications, is closely related to solving pressing practical problems and, ultimately, without complex processing of information, including spatial data on the state of the environment and its possible adverse developments.  Scientific and methodological solution to the problems of integration of Polar data is an interdisciplinary problem at the intersection of computer science, methodology and subject areas of Earth Sciences. The task of planned research is the synthesis of technology for distributed access and processing of information, and integration on the basis of the system research multidimensional distributed information-analytical resources created within the works.  Methodology on the one hand - it issues a system and resource integration, including the use of technology of distributed GIS, distributed computing standards and open systems interconnection, information and communication aids and comprehensive analysis of the data, on the other hand - it is laying the foundations of the scientific infrastructure of spatial data for the territory, data warehousing, specialized GIS and Grid Web portals servers as virtual workspaces for joint information centers (command) the user experience.



3.	C12.06 Cold Region Environments AND C12.18 Hazard and Risk	Natural hazards and risks in Arctic and cold regions environment	Sergey A. Sokratov <a href="mailto:sokratov@geol.msu.ru">sokratov@geol.msu.ru</a>  Jose Novoa <a href="mailto:inovoa@userena.cl">inovoa@userena.cl</a>	Specific of the Arctic and cold regions environment includes the difference in the list of the possible natural hazards and the difference in the dynamics and extent of the common with the other regions natural hazards. Present time active development of (especially) the Arctic region unavoidably increases the risks. Incorporation of such specific into existent risk assessment techniques requires deep understanding of the interrelation between various cold regions environmental components, the effect of this interrelation on the natural hazards and the influence of natural hazards on growing industry and population. Contributions devoted to such understanding are invited.
4.	C12.06 Cold Region Environments AND C12.32 Mountain Response to Global Change	Mountain cryosphere in a changing climate: data and observations	Tatiana Vlasova <a href="mailto:tatiana.vlsv@gmail.com">tatiana.vlsv@gmail.com</a>  Tatiana Khromova <a href="mailto:tkhromova@gmail.com">tkhromova@gmail.com</a>	The mountain cryosphere includes important elements of the earth system like snow cover, glaciers, permafrost, seasonally frozen ground, and lake and river ice. The cryosphere is currently one of the most prominent symbols to visualize the impact of climate change, because changes in many cryospheric variables can be observed in nature even by non-scientists. The observed changes in climate are affecting all elements of the cryosphere on different scales. On a global scale, glaciers and ice caps are increasingly influencing the global sea level rise and are therefore threatening many heavily populated regions close to seashores. On a local to over regional scale the current retreat of mountain glaciers worldwide influences the water discharge and consequently sustainable agriculture and energy production, or mountain permafrost affecting slope stability. Therefore, it is still an urgent need to improve the understanding of mountain cryospheric processes and the corresponding long-term evolution of e.g. glaciers or mountain permafrost in connection with climate change adaptation programmes in order to reduce the high vulnerability of people living in mountainous regions. Contributions of all kind on mountain cryosphere topics dealing with field measurements, remotely sensed observations, data management are highly welcomed.
5.	C12.06 Cold Region Environments AND C12.33 Political Geography	Defining priorities for the Antarctic Sustainability Science	V.A.Kolosov <a href="mailto:vladimirkolosov@gmail.com">vladimirkolosov@gmail.com</a>  V.S Tikunov <a href="mailto:tikunov@geogr.msu.su">tikunov@geogr.msu.su</a>	Antarctica is now known to be experiencing relentless change. Local transformations such as the loss of ice, changes in ocean circulation and recovery of atmospheric ozone have global consequences — for climate, sea level, biodiversity and society. Antarctic science is clearly becoming more and more globally important. Scientific Committee on Antarctic Research (SCAR) convened 75 scientists and policy-makers from 22 countries recently has agreed on six priorities for Antarctic research for the next two decades and beyond. All of them need trans- and multidisciplinary scientific approaches. One of them is the Recognition and mitigation of human influences. Forecasts of human activities and their impacts on the region are required for effective Antarctic



				governance and regulation. Natural and human impacts must be disentangled. How effective are current regulations in controlling access? How do global policies affect people's motivations to visit the region? How will humans and pathogens affect and adapt to Antarctic environments? What is the current and potential value of Antarctic ecosystem services and how can they be preserved? Answering these many questions will require sustainable science, growth in international cooperation and improved communication among all interested parties. Such questions as how to maximizing scientific return and coordinated international efforts that engage diverse stakeholders will be the main point of the discussion at this session.
6.	C12.10 Gender & Geography Commission AND C12.33 Political Geography Commission	Gender Activisms in Asia: Peoples, Places and Politics	Shirlena Huang (Gender & Geography Commission) <a href="mailto:geoslana@nus.edu.sg">geoslana@nus.edu.sg</a>  Chih Yuan Woon (Political Geography Commission) <a href="mailto:chihyuan@nus.edu.sg">chihyuan@nus.edu.sg</a>	This session seeks to critically interrogate the notion of gender activism – its discourses, images and impacts – and to examine the sites and politics of feminist engagements across a spectrum of moments, movements and mobilizations specifically in the Asian context. Whilst there has been increasing attention paid to the impetuses, organization and outcomes of activist movements in Asia, the gendered dimensions remain under-theorized and under-researched in these works. We therefore invite papers, theoretical and/or empirical, that reflect on the difference that gender – and its intersecting dimensions of race/ethnicity, class, nationality, immigration status and so on – makes to the diverse geographies of activism in Asia. Themes may include, but are by no means limited to: The politics of women and protest, The embodied and emotional aspects of activism, Transgender and queer activism, Gender and transnational activism, Gender activism and the state, Political agendas and sites of gender activism, Digital landscapes of gender activism
7.	C12.10 Gender and Geography AND C12.34 Population Geography	Geographies of International Student Mobility: The Roles of Gender, Class and Ethnicity	Yvonne Riaño <a href="mailto:yvonne.riano@unine.ch">yvonne.riano@unine.ch</a>  Allan Findlay <a href="mailto:Allan.M.Findlay@st-andrews.ac.uk">Allan.M.Findlay@st-andrews.ac.uk</a>	Remarkable advances have been achieved in re-theorising international student mobility in relation to the forces shaping the internationalisation and differentiation of spaces of higher education. Within this context, this session will explore the uneven nature of student flows in terms of gender, class and ethnicity. Recognising that intersectionality is now an important paradigm, the aim of the session will be to offer an analytical perspective that sheds light on how social norms around gender, class and ethnicity shape student mobility and how it is practiced and performed: who goes, why they go, where they go, how they go, when they go, with whom they go, and whether they stay after their studies or move on. In this spirit, we invite empirical papers and/or theoretically driven presentations inspired by, but not limited to, any of the following questions: 1)How does intersectionality shed light on how migration practices have emerged in the pre-migration stage, in the transition across state boundaries, and in the experiences of different international students in countries of destination? 2)To what extent do social norms



				around gender, class and ethnicity influence the decision of students about which country to choose for tertiary studies, what kind of university to enrol in, what field to choose, what city to go to or avoid, and whether to return, stay or move on? 3)How do patriarchy and class operate in the 21st century in terms of i) people's ability to migrate for tertiary education, and ii) the relationship between student mobility and lifetime mobility aspirations? To what extent do the practices of student migration have enduring impacts on power relations in other arenas such as the household?
8.	C12.14: Commission on Global Information Society AND C12.30: Commission on the Mediterranean Basin	ICT, Social Networks and Activism in the Mediterranean	Maria Paradiso <a href="mailto:paradiso@unisannio.it">paradiso@unisannio.it</a>  Mark Wilson <a href="mailto:wilsonmm@msu.edu">wilsonmm@msu.edu</a>	ICTs have emerged as an information source and organizational mechanism for activism in the Mediterranean Basin. This session will focus on how ICTs have played a role in political, social and environmental action in the many countries around the Mediterranean.
9.	C12.14: Commission on Global Information Society AND C12.15 Geography of Tourism, Leisure, and Global Change AND C12.30: Commission on the Mediterranean Basin AND C12.39 Urban Commission: Urban Challenges in a Complex World	Mega Events: The Role of Spectacle in Urban Development	Mark Wilson <a href="mailto:wilsonmm@msu.edu">wilsonmm@msu.edu</a>	Mega-events are complex economic, political, and planning phenomena that combine decisions about a short-term event with long-term land use planning, city branding, and economic development strategies. These events can play a significant role in reflecting and shaping urban identity, serving to influence attitudes and values, and to remake urban space. While often interpreted as ephemeral, the event itself becomes a vehicle for remaking the physical and social spaces of host cities with long term implications. We welcome papers that explore the impact of mega events such as the Olympics, World Cup, and World's Fairs and their role in urban development, tourism and leisure, and the representation of people and places



10.	C12.17 Global Change and Human Mobility (Globility) AND C12.30 Mediterranean Basin IN COOPERATION WITH WITH 7FP Marie Curie IRSES MEDCHANGe 612639	New trends of the human mobility in the Mediterranean basin: towards a new migratory model?	Josefina Domínguez-Mujica <a href="mailto:josefina.dominguezmujica@ulpgc.es">josefina.dominguezmujica@ulpgc.es</a>  Maria Paradiso <a href="mailto:paradiso@unisannio.it">paradiso@unisannio.it</a>	The European Mediterranean countries comprise a distinctive sub-group of EU states as regards international migration. Until 1973, they were viewed as countries of emigration and since the eighties they underwent a migratory transition, becoming countries of both emigration and immigration. In the turn of the century they developed a high migratory attraction and the foreign population in all of them considerably increased. However, the economic crisis has strongly hit the labour markets and the standard of life of population. Consequently it is necessary to assess the repercussions of the crisis on migrations and communities of migrants not only in these European countries but further on, especially in the African countries of the Mediterranean basin, the place of origin of many of the European immigrants. The study cases of the migratory patterns in this new economic context will be welcome in this session.
11.	C12.17 Global Change and Human Mobility (Globility) AND C12.34 Population Geography	Human mobility and latest Census data: new evidences, new insights	Josefina Domínguez-Mujica <a href="mailto:josefina.dominguezmujica@ulpgc.es">josefina.dominguezmujica@ulpgc.es</a>  Etienne Piguet <a href="mailto:Etienne.piguet@unine.ch">Etienne.piguet@unine.ch</a>	Statistical data available today are still highly variable from country to country. Developed countries have normally specialised Statistical Institutes and different records provided by Municipal Register Statistics, Social Security Registrations, surveys, which allow a detailed knowledge of demographic phenomena. However, human mobility is still a phenomenon very difficult to measure and track. Data arising from Population Censuses in terms of both flows and stocks enhance the possibilities of researchers on this matter but several countries recently abandoned population censuses. A move that might be especially problematic for data on small areas related to migrant populations. Besides, such demographic sources are especially meaningful in the case of developing countries, as they represent most of the times the only means to study population figures and its significant processes. The goal of this proposal is, therefore, to promote the use of census data for the analysis of human mobility, allowing us to identify new trends in specific geographic regions and countries. In countries where census data are not available any more the session will explore alternative sources such as register and large scale surveys.
12.	C12.20 Commission on the History of Geography AND C12.33 Commission on Political Geography	Rethinking what (political) geography ought to be: Theories, histories, and practices of geography and geopolitics as instruments of peace	Takashi Yamazaki <a href="mailto:yamataka@lit.osaka-cu.ac.jp">yamataka@lit.osaka-cu.ac.jp</a>  Alexey V. Postnikov <a href="mailto:postnikov@comtv.ru">postnikov@comtv.ru</a>	How have (political) geographers defined 'peace' as opposed to 'war' in their discipline? And why? These questions may sound very simple but have not been seriously investigated. Following the successful joint session between the two commissions in the IGU Krakow Regional Conference, this joint session pursues and advances the same theme of geography and peace one step further. While focusing on the historical development of geographical knowledge as a tool for fostering peace, cultural tolerance and mutual understanding at different scales, this session explores historical and contemporary practices for peace promoted by geographers at various places in the world. Papers on



				thoughts and/or practices by geographers, whether well-known or not, across the world are welcome.
13.	C12 30 Mediterranean Basin AND C12.35 Sustainability of Rural Systems	Sustainable Food Systems: new trends in the Mediterranean Basin	Ana Firmino <a href="mailto:am.firmino@fcsb.unl.pt">am.firmino@fcsb.unl.pt</a>  Maria Paradiso <a href="mailto:paradiso@unisannio.it">paradiso@unisannio.it</a>	The Mediterranean Diet has been regarded as a balanced and healthy nutritional model that has remained almost unchanged over time. More recently UNESCO distinguished some cities, such as Soria in Spain; Koroni in Greece; Cilento in Italy; Chefchaouen in Morocco; and Tavira in Portugal with the Intangible Cultural Heritage Award, as representatives of the "skills, knowledge, practices and traditions ranging from the landscape to the table, including the crops, harvesting, fishing, processing, preparation and, particularly, consumption of food" embedded in the Mediterranean Diet, as stated by UNESCO. and, particularly, consumption of food" embedded in the Mediterranean Diet, as stated by UNESCO. However globalization influences continually either the diet itself or the varieties and mode of production, the behaviors and values. production, the behaviors and values. This joint session welcomes papers dealing with the sustainability of food systems, addressing topics such as: - The Sustainability of the agricultural practices and distribution systems; - Landscape and touristic activities associated to the agricultural production in the rural areas; of The Intangible Cultural Heritage Award to The protection of The Mediterranean traditions and Culture
14.	C12.36 Toponymy jointly with International Cartographic Association	Place-name Study and Geographical Research	Professor Cosimo Palagiano <a href="mailto:cosimo.palagiano@uniroma1.it">cosimo.palagiano@uniroma1.it</a>  Dr. Andrey A. Herzen (Gertsen) <a href="mailto:andrulea@mail.ru">andrulea@mail.ru</a>	Main themes: Theoretical Place-name Study and Onomastics, Applied Onomastics and Regional Toponymy, Urban Toponymy (Administration, Commercialization, Place-name Conflicts), Standardization and Toponymical Heritage (Globalization versus Regional Identities), Place-name Study, Historical Geography and Culturology.





### 3. Thematic session

Sessions are listed by titles following the alphabetical order

No	Session title	Chairperson (s)	Session outline
1.	Aral Sea Syndrome – Case Studies and Consequences	<p>Prof. Dr. Christian Opp <a href="mailto:opp@staff.uni-marburg.de">opp@staff.uni-marburg.de</a></p> <p>Dr. Zhanna Kuzmina <a href="mailto:jannaKV@yandex.ru">jannaKV@yandex.ru</a></p>	<p>The Aral Sea Syndrome is one of the globally environmental syndromes. Like no other syndrome it reflects water deficit problems caused by overexploitation of water resources through irrigation agriculture in combination in combination with central planning and the ongoing climate change. The content of the contributions to the session can include partly analyses from the Aral Sea region by itself. But we call also for contributions from other terrestrial and limnological/hydrological study areas. The contributions to the session should also inform about side-effects of the Aral Sea Syndrome like problems, such as dust storms and dust depositions or side-effects for fishery, agriculture or human health or others. The contributions should not end with the status quo of the disaster. They should also present concepts and realized measures to reduce or to mitigate the environmental problem. The aim of the session is summarizing the knowledge from different case studies regarding the Aral Sea Syndrome like problems and regarding problem solutions or problem minimization.</p>
2.	Bringing together Selenga-Baikal research 2015	<p>Ekaterina Promakhova <a href="mailto:promakhova@gmail.com">promakhova@gmail.com</a></p> <p>Jerker Jarsjö <a href="mailto:jerker.jarsjo@natgeo.su.se">jerker.jarsjo@natgeo.su.se</a></p> <p>Daniel Karthe <a href="mailto:daniel.karthe@ufz.de">daniel.karthe@ufz.de</a></p>	<p>Lake Baikal and the nearby Selenga River Delta constitute water bodies that are recognized by international conventions for their trans-regional importance. Following the collapse of socialism in the 1990s, the basins of Lake Baikal and the Selenga River have witnessed a massive political and socioeconomic transformation, coinciding with land use changes and climate change impacts. Increasing pressures on water resources in this water-scarce region lead to an intensified competition between different user groups (e.g. mining, agriculture, industry, and prospectively hydropower) and the riparian states of Russia and Mongolia. This affects river discharge and water quality, which potentially threaten the ecosystem of the Selenga River Delta, which acts like a 'natural filter' for the inflow into Lake Baikal. The objective of the study is to assess the impacts of multiple developments and stressors on water availability, quality and management in the Selenga River Basin. The main aim of the session is to promote exchange of ideas and methodologies between various organizations, working in the Lake Baikal drainage area. The research area of the session is water supply, heavy metal contaminant, mining activity, sediment transport and ecosystem interaction of the Selenga-Baikal Basin. Session will continue the similar events that took place in 2012 and 2014 in Switzerland and Germany respectively.</p>
3.	Climate Variability and Predictability	<p>Dr. Bin Yu <a href="mailto:bin.yu@ec.gc.ca">bin.yu@ec.gc.ca</a></p> <p>Prof. Youmin Tang <a href="mailto:yumin.tang@unbc.ca">yumin.tang@unbc.ca</a></p> <p>Dr. Hai Lin <a href="mailto:hai.lin@ec.gc.ca">hai.lin@ec.gc.ca</a></p>	<p>This session invites contributions that deal with climate variability and predictions on intraseasonal, interannual and decadal-interdecadal time scales. Contributions are solicited on topics including studies of Madden-Julian oscillation (MJO) and tropical waves, El Niño Southern Oscillation (ENSO), atmospheric patterns, tropical-extratropical interactions, and impacts of these processes on climate predictability and predictions. Equally welcome are contributions on extended- and long-range weather forecasts, and predictions of climate variability on various time scales. Results from diagnostic, modeling, model inter-comparison, and theoretical approaches are all welcome.</p>



		Prof. Soon-Il An <a href="mailto:sian@yonsei.ac.kr">sian@yonsei.ac.kr</a>	
4.	Coastal erosion and dynamical processes in the nearshore zone	Professor Ruben Kosyan <a href="mailto:rkosyan@hotmail.com">rkosyan@hotmail.com</a>	<p>The nearshore zone, though constituting only a small part of seas and oceans, plays an important role in human existence. Situated adjacent to the shore, it has been actively developed by people living in the narrow coastal zone. Coast and coastal zone are national treasure, political, economical, ecological and even esthetical value of which constantly grows, and grows rapidly in Mediterranean countries. The main factor that determines the coasts development is natural dynamic processes, which intensification might be expected due to possible rise of World Ocean level. Depending on how profound are people's knowledge of the Depending on the local conditions waves and wave flows either erode the original rocks in the coastal zone moving the coast landwards, or build up it by means of sediment accumulation along the shore, and keep a stable outline and profile of the coast manifesting a mobile equilibrium between acting factors. These problems could not be solved without knowledge of wave and current sediment transport in nearshore zone. In the second half of the 20-th century, rapid tonnage growth led to the necessity for raceways construction; prediction of their silting became one of the important practical tasks of sediment transport studies. Solution of many present-day practical tasks depends on knowledge of regularities of sediment formation and transport in the nearshore zone. Intake of sea water with minimal impurities for cooling systems of nuclear and thermal power stations is of vital importance, as the majority of these stations are being constructed on coasts. There are some areas where quarrying of building materials (sand, shell) presents a serious problem, as their removal from the seabed and beach in scientifically unreasonable quantities can result in severe ecological damage. Prediction of sediment discharge, deformation of the bottom relief and beach profile changes is vital for the security of various communications (cables, pipelines) and hydraulic works (scaffold bridges, oil-pumping works, etc.), for support of beach recreational regime and for artificial beach creation. The session will have an interdisciplinary approach and show the links between dynamical processes in the coastal zone and development of different coastal systems.dynamics and how professionally this knowledge is applied, human activity in the coastal zone may make these processes both creative and destructive.</p>
5.	Environmental justice and Indigenous rights	Brad Coombes <a href="mailto:b.coombes@auckland.ac.nz">b.coombes@auckland.ac.nz</a>	<p>It is conventional to view environmental justice and Indigenous rights as complementary agendas. Yet, pursuit of the Indigenous right to development, for instance, often draws Indigenous communities into conflict with White environmental groups. Moreover, as an academic concept environmental justice has moved from a fixation with the hostile siting of hazardous facilities near peoples of color to a more everyday, discursive understanding of justice that is inspired by critical race theory. The meaning and constitution of environmental justice can no longer be taken for granted. Coincident with those movements, many Indigenous groups have transitioned from a phase of claims-making and claims settlement to a post-settlement condition of implementing and realizing new legal rights or obligations, including perceived community needs to develop resources and exercise new use rights. The evolution of environmental justice research and the post-settlement realities of Indigenous peoples intersect and diverge in significant ways, warranting discussion about whether or not environmental justice and Indigenous rights can now be reconciled. The session could include individual presentations on such topics as alliance building or hostility in Indigenous and</p>



			environmental activism, environmentalists' objections to or support for Indigenous development, reconciliation of environmental and developmental agendas after land claims settlement, Indigenous reconceptualization of environmental injustice or the ongoing coincidence of hazardous activities and Indigenous practices.
6.	Evolution of Earth Cryosphere in changing climatic conditions and under a human-induced disturbances	<p>Victor Popovnin <a href="mailto:begemotina@hotmail.com">begemotina@hotmail.com</a></p> <p>Dmitry Streletskiy <a href="mailto:strelets@gwu.edu">strelets@gwu.edu</a></p>	<p>The Earth Cryosphere is a dynamic system sensitive to the environmental change. Monitoring of cryosphere components is essential in understanding climatic and environmental variability and trends. The complexity of cryosphere is attributed to variable reaction of its components (glaciers, permafrost, snow) on changing climatic conditions. Cryosphere changes are not uniform and have significant regional differences requiring detailed investigations in various physiographic conditions. The main goal of contemporary studies of Earth Cryosphere is assessment of cryospheric changes and impacts of these changes on nature and society in global and regional scales. Such studies are particularly important for Russia, where more than half of terrestrial surface is occupied by permafrost. Permafrost regions are rich in mineral resources, have developed industrial and economic activities and are characterized by presence of large population centers. Warming climatic conditions observed in majority of the Arctic decreasing stability of cryosphere components and lead to intensification of hazardous glacial and cryogenic processes. Economic and land use activities possess additional pressure on cryospheric systems.</p> <p>The session is inviting presentations on peoleoreconstructions; monitoring of various cryospheric components; modeling of interactions between cryosphere and other components of natural and technogenic environment; forecast of cryospheric components to develop adaptation and mitigation strategies.</p>
7.	Free Economic Zone Phenomenon: Theoretical Analysis and Case Studies	<p>Guangwen Meng <a href="mailto:gwmeng98@hotmail.com">gwmeng98@hotmail.com</a></p> <p>Hans Gebhardt <a href="mailto:hans.gebhardt@geog.uni-heidelberg.de">hans.gebhardt@geog.uni-heidelberg.de</a></p>	<p><b>Session overview</b></p> <p>We invite paper presenters and panellists to participate in a two-part session to be held at the August 2015 IGU annual meeting in Moscow, entitled the Free Economic Zone Phenomenon: Theoretical Analysis and Case Studies. Part one focuses on the theoretical analysis of the benefit, location, industrial structure, management mode, policy design and effect of the free economic zones from perspectives of economics, geography, management and other related subjects. Part two is concerned with varying free economic zones of regions all over the world, including Asia, Europe and America by evaluating their present situation, impact, future and challenges.</p> <p><b>Abstract</b></p> <p>Areas with special economic privileges – like the right for tax reductions – have been established in many kinds since the 16th century. Until the 1960s, however, these Free Economic Zones (FEZs) only played a minor role in the world economy. Since then a variety of new models has developed and their importance has grown on a global scale. In recent years the Free Economic Zones (FEZs), as a product of economic globalization and regional economic integration (REI), have become the growth poles of the economic development, the motivation of urbanization and a significant stage for the reforms of related institutions. This is especially true for the FEZs in both developing and developed countries. There are numerous theoretical and empirical studies on FEZs. The classic studies discuss trade creation and trade transfer in a cross-national “Free Economic Area”. However, most studies focus narrowly on the economic effects and roles of EPZs and SEZs in developing and socialist countries. Several studies attempt to provide a theoretical framework to analyze these economic effects. Others present a general theory of FEZs or they discuss their structural and spatial evolution. Generally speaking, these studies examine the theory and practice of FEZs from different angles and provide</p>



			<p>important cornerstones for further studies. However, several questions have not been answered yet. First, there is still some notable linguistic and conceptual diffusion remaining about the definition and typology of FEZs, since a general typological classification has not been clarified yet. Second, there still doesn't exist an indicators system to describe and analyze FEZs. Third, most studies analyze the static economic effects while only little consideration has been given to when, why, and how FEZs evolve under diverse economical, political, social-cultural and spatial conditions on different scales (international, national, regional and local). Fourth, the inherent relation between FEZs and the concept of regional economic integration has not been fully discussed so that REI and FEZs look like two unrelated economic phenomena. However, this field is still in lack of integrated evaluation and theoretical conclusion of the construction and development of FEZs.</p> <p>We welcome proposals from paper authors and panelists who would like to join us in a discussion that will include, but is not limited to the issues raised in the following questions:</p> <ol style="list-style-type: none"> <li>1. Theoretical considerations on the economic and political role of free economic zones</li> <li>2. The development and transformation of the free economic zones in the world</li> <li>3. Case studies of the free economic zones in different regions of the world</li> </ol>
8.	Geography Methods for Preservation of Heritage	<p>Yury Vedenin <a href="mailto:vedenin37@gmail.com">vedenin37@gmail.com</a></p> <p>Yury Mazurov <a href="mailto:jmazurov@yandex.ru">jmazurov@yandex.ru</a></p>	<p>The goal of the session is to strengthen the regional scientific and informational potential for the implementation of the national heritage legislation, for better management of the heritage sites and foresight activities against new global challenges.</p> <p>Present precarious economic situation in Russia and other CIS countries recalls that cultural development and nature conservation will receive significantly less attention and funds. But crisis is exactly the turning point for reconsideration of the cultural and natural heritage values and their role in the national and regional sustainable development. Discussion of present state of affairs and policies in the heritage preservation from the point of view of academic science is vital for the improvement of the national management system and more effective financial policies.</p> <p>In this context, exchange of information and focused discussion of the existing problems in cultural and natural heritage management in the CIS, a region with the similar economic and political structures and processes, is highly important for developing comprehensive recommendations on management of heritage sites, including re-assessment of impacts from the global climate change, urbanization process, and tourism development.</p> <p>Industrial effluents into the atmosphere, in particular, if accompanied by rapid deforestation of boreal forests lead to the so-called 'greenhouse' effect and atmosphere warming. Another important global change is uncontrolled urbanization – the sprawling of the modern cities, subsequent conglomeration of the heritage sites by the new housing constructions, and destruction of the centennial historical centers and urban landscapes. Almost half of the existing World Heritage Sites are urban monuments and heritage sites located in the very historical cities, thus every second site inscribed to the World Heritage List is threatened by the negative impacts of the urbanized environment. One of the examples of the emerging threats in the traditional urban landscape is so called 'vertical pollution' in the form of modern skyscraper construction.</p> <p>Due to highly expanded tourist migrations today there is a real threat to popular heritage sites. Excessive tourist pressure in the heritage sites is highly profitable, but naturally it requires a remedy</p>



			<p>in the form of specific approaches and various combinations of the organizational, prohibitive, planning, educational and other measures. These problems are most visible in the spatial sites with cultural and natural heritage, including cultural and historic urban landscapes.</p> <p>For mitigation of the negative impacts it is important to optimize the heritage management system, including legal, administrative, financial, social, technical and other measures to ensure quality preservation of the heritage sites; their rational (sustainable) use; permanent comprehensive monitoring of their state; effective protection of the natural and cultural properties and values; consideration of the environmental and cultural landscape conditions, as well as raising awareness on the spatial heritage sites to ensure the integrated natural and cultural values preservation. Geographers shall focus on the foresight activities, supported by the continuous monitoring, forecast of the optional scenarios, assessment of the outstanding value or unique properties of the heritage sites etc. For institutional capacity building and networking on these issues the session will share experiences between the countries and individual experts in the research of the global challenges and their impact upon the heritage preservation. It would be important to discuss also the degree, direction and mode of human traditions to evolve while protecting the historic environment. In this context 'living heritage' shall be incorporated into protective legislation, thus enabling intangible values to be taken into account, while the cultural landscape concept will facilitate the coordination of the tangible and intangible heritage preservation and use. Cultural landscape concept is an important part of the heritage preservation theory, it represents as well a vital socio-cultural paradigm able to face and overcome the global challenges and threats.</p> <p>Session will contribute to the elaboration of the comprehensive recommendations on the heritage sites that are to be more effectively protected against new global challenges and threats. This will ensure sound scientific and technical support to the regional heritage initiatives, elaboration of the joint programs and projects, education and professional training on the heritage preservation.</p>
9.	Landscapes of Energy	<p>Michael Roth <a href="mailto:michael.roth@hfwu.de">michael.roth@hfwu.de</a></p> <p>Marina Frolova <a href="mailto:mfrolova@ugr.es">mfrolova@ugr.es</a></p>	<p>This session aims to unravel the specific logics and 'making' of landscapes of energy. What is the role of energy in the transformation of landscapes and landscape values? Are energy landscapes such as more traditional ones, as oil fields, coal mines, hydropower and nuclear power landscapes, and the new ones, like solar power, wind energy or biofuel landscapes are inherently different from other 'industrial' landscapes? What do they have in common? What is the inter-relationship between renewable energy production and landscape quality, and the role of public participation for the acceptance of renewable energy systems? How could we bridge the gap between energy and landscape resources, for example using landscape assessments to promote sustainable energy planning? And last not least, do energy landscapes lead us to re-conceptualize our understanding of landscape?</p> <p>Contributions are invited on the following:</p> <ul style="list-style-type: none"> <li>• Logics that drive the emergence and evolution of energy landscapes</li> <li>• Shifting power structures in the landscape</li> <li>• Impacts of energy development on landscape</li> <li>• Renewable energy landscapes: Are they 'design landscapes' of the future?</li> <li>• Landscape assessment for sustainable renewable energy planning</li> <li>• Public acceptance of landscape change induced by energy systems</li> </ul>



			<ul style="list-style-type: none"> <li>• Relation energy resources/landscape resources. How could we deal with this relation and with landscape conversion from energy resource to some other uses resource (e.g. Brownfield to Greenfield; farming to mining, conversion of energy landscapes to tourism landscapes or 'natural' landscapes, etc.)? How could this different uses be combined in the same landscapes with minimum impacts on landscape quality?</li> <li>• How could lessons learnt from more "traditional" energies (e.g. hydropower) be applied to the development of newer kinds of renewables?</li> </ul>
10.	Lakes in a changing world	Mikhail Naumenko <a href="mailto:m.a.naumenko@mail.ru">m.a.naumenko@mail.ru</a>  Vladislav Rumiantzev <a href="mailto:lake@limno.org.ru">lake@limno.org.ru</a>	Lakes are the main source for water supply and the receiving water bodies for surrounding watersheds. We propose a session exploring different ideas, tools, and approaches to understand the patterns and processes of lake ecosystems under environmental change. This session will examine new views to lake's water resources. Additionally, this session will highlight potential solutions to common challenges with integrating and managing disparate data sets in multi-investigator, multi-institution, and multi-disciplinary team synthesis projects. Restoration can restore habitats and lost ecosystem services; this benefits not only the ecosystem but also the people who live there. We will explore successes and challenges of urban coastal restoration via presentations that examine the issue from multiple perspectives that include research, resource management, urban planning, and human dimensions.
11.	Land Use and Nature Conservation in Riparian Areas – The Interrelation Between Efficient Ecosystem Functions and Beneficial Ecosystem Services on Floodplains	Bernd Cyffka <a href="mailto:bernd.cyffka@ku.de">bernd.cyffka@ku.de</a>  Umut Halik <a href="mailto:uemuet.halik@ku.de">uemuet.halik@ku.de</a>	<p>Floodplains are hotspots of biodiversity and belong to the most productive ecosystems of the world. They provide habitats for many species from flora and fauna. Furthermore they deliver many ecosystem services which are essential for our daily life, e.g. water purification, climate and erosion regulation flood water storage and so on. But these ecosystem services could only be delivered if all ecosystem functions are working well.</p> <p>Floodplains of today suffer from multifunctional land-use. Often the single types of land-use are competing, e.g. flood water storage areas should also serve as agricultural areas as well as groundwater reservoirs. All these types of usage are ecosystem services we expect that floodplains can deliver to that extent and time we need them. Especially in Europe this system is endangered. There is more and more pressure from land-use on floodplains. For instance in Germany less than 20% of floodplain areas can regarded as close to nature and are connected to the river. Floods of the past year have shown that inundation areas for high floods are missing which is causing the need for technical measures for flood protection, which costs a lot of money. At least in Europe there is a public discussion, which shows the need for action, but also the dilemma: There should be more space for river, but there is no space, because many areas of the floodplains are occupied by settlements and others are in private use so that immediate action/remediation is often difficult and partly impossible. We are looking for presentations that show the different and competing types of land-use and ecosystem services in form of case studies and raise a controversial discussion, but perhaps can offer strategies and concepts to solve the problems or at least offer some inspiring ideas. Especially contributions at the interface of human and physical geography (or related sciences) are welcome. Topics of presentations could be:</p> <ul style="list-style-type: none"> <li>-How to protect habitats and species on floodplains and to foster hydro-morphological dynamics?</li> <li>-Is it possible to rely on ecosystem services from floodplains in future? How to balance the different types of usage, how to generate synergetic effects and how to adapt the requirements of land-use?</li> <li>-Are there any efficient concepts from existing management strategies to arrange the requirements of land-use, and are such concepts sensible and/or societally acceptable?</li> </ul>





			<p>-Is it possible that a forward-looking floodplain management (or respective management concepts) can lead to synergetic effects in the fields of flood protection, nature conservation, biodiversity and the adaption to climate change, and therefore also lead to a sustainable development of floodplains?</p> <p>In general contributions which address floodplain ecology and/or floodplain management from all over the world are welcome.</p>
12.	Long-term engagement in Indigenous research	<p>Prof. Richard Howitt  <a href="mailto:richie.howitt@mq.edu.au">richie.howitt@mq.edu.au</a>  OR  <a href="mailto:tor-arne.gjertsen@uit.no">tor-arne.gjertsen@uit.no</a></p>	<p>Connecting to past research: policy relevance, ethical concerns and methodological challenges in long term engagement with Indigenous rights and knowledges. We invite presentations from researchers involved in long timeframe research with Indigenous groups or using data from older research to contribute to a session that will discuss ethical, practical and conceptual issues arising in such circumstances in a range of Indigenous settings. Our own focus arises from work with Aboriginal people in rural communities in New South Wales, Australia. Our Australian research project has revisited geographical fieldwork on the social and economic conditions of Aboriginal people in several rural towns in New South Wales in southeast Australia done in the 1960s. Janice Monk's doctoral research undertook detailed surveys of one in three Aboriginal households in four mid-sized towns with similar demographic structures and two smaller villages. The research was linked to a national Social Science Research Council of Australia project on Aborigines in Australian Society, led by Charles Rowley which was influential in a period of dramatic policy changes in Indigenous affairs in Australia. The original research was undertaken in the absence of any formal ethical review or institutional oversight other than student supervision and links to advice from senior colleagues such as Rowley and others at Monk's alma mater, Sydney University. In the participating communities, Monk's original field research was a brief moment in a long experience of external scrutiny. Aboriginal participants in the research were well-used to compliance with such official activity and their own disempowerment in shaping or responding to it. Despite the future trajectory of Monk's feminist scholarship, this early work left the power geometries of rural race relations in the towns largely untroubled. Yet her work documented much of value to those of us interested in tracing the subsequent trajectories of such power geometries as well as offering interesting snapshots of the circumstances, conditions and concerns of Aboriginal families in these towns in the mid-1960s under very different social, economic and policy settings than prevail now. In this session, we invite discussion of the difficulties and opportunities that arise in bringing such data back to a community after a prolonged absence and much change. We invite discussion that addresses changing compliance requirements in research ethics and changing discursive currents in social theory as well as the logistical, conceptual and methodological challenges of revisiting recent historic data with and in communities, working collaboratively with them to assess the impact of subsequent policy and economic change on people's lives, and beginning shared processes of critical reflection. Our own papers in this session will bring full circle 50 years of geographic work with presentations from Professor Richie Howitt who leads the Australian Research Council Project revisiting this data, Dr Claire Colyer on the major policy changes since 1965 and David Crew, a PhD Candidate working with one of the original research communities.</p>
13.	Mathematical morphology of landscape and landscape metrics	<p>Alexey Victorov  <a href="mailto:vic_as@mail.ru">vic_as@mail.ru</a>  OR  <a href="mailto:dist@geoenv.ru">dist@geoenv.ru</a></p>	<p>The thematic section deals with a rather developed branch of landscape science, quantitative laws and regularities of landscape morphologic patterns and relevant techniques of their numerical analysis. The topic is interesting to a wide range of researches. In Russian geography this topic is developed in works of A. Victorov, V. Kapralova, T. Orlov as a new scientific branch called the mathematical morphology of landscape, which develops analysis of morphological landscape patterns</p>



		<p>Timofey Orlov  <a href="mailto:tim.orlov@gmail.com">tim.orlov@gmail.com</a></p>	<p>performed by V.A. Nikolaev, L.I. Ivashutina, A.G. Topshiev and some other researches in the end of the 20th century.</p> <p>At the same time researches dealing with design and application of landscape metrics and corresponding software are well developed in the west geosciences. That are works made by RV O'Neill, KH Riitters, P. Vogt, K. McGarigal concerning quantitative parameters of morphological patterns. These topics are developed in different countries including Russia, Estonia, USA, Poland, Hungary, Germany, Portugal.</p> <p>The session could discuss numerous interesting issues such as:</p> <ul style="list-style-type: none"> <li>- quantitative laws for landscape patterns and their development,</li> <li>- design and application of landscape metrics,</li> <li>- mathematical modeling of landscape patterns,</li> <li>- landscape metrics and dynamics of natural processes,</li> <li>- invariants of landscape metrics,</li> <li>- landscape metrics from the point of view of the mathematical morphology of landscape,</li> <li>- software for landscape pattern analysis,</li> <li>- landscape metrics application in geosciences,</li> <li>- landscape metrics analysis in geological interpretation of remote sensing data,</li> <li>- landscape metrics and risk assessment.</li> </ul>
14.	Methods of forecasting global and regional tourism	<p>Alexandrova Anna Yurjevna  <a href="mailto:analexan@yandex.ru">analexan@yandex.ru</a></p> <p>Shabalina Natalia  <a href="mailto:natshab@yandex.ru">natshab@yandex.ru</a></p>	<p>Purpose: To give an assessment of a level of development of geography researches on tourism development forecasting.</p> <p>Tasks:</p> <ol style="list-style-type: none"> <li>1. To analyse world experience and experiment of the countries of the former Soviet Union on creation, management and the assessment of tourist and recreational clusters.</li> <li>2. To reveal the existing set of methods of forecasting of development of tourism.</li> <li>3. To estimate the most effective methods of forecasting in tourism (an extrapolation method, statistical, and others methods)</li> <li>4. To estimate prospects of need of carrying out researches on tourism development forecasting.</li> </ol> <p>Relevance:</p> <p>Modern tourism represents an important element of globalization of social and economic development. However, the level of its development is various for the different states and regions of the world. Using of tourist and recreational capacity of various countries and the people allows to make forecasting of development of tourism more effective for recovery of physical, spiritual and intellectual forces of people.</p>
15.	Pan-Eurasian Experiment (PEEX) – A Research Initiative Meeting The Grand Challenges Of The Changing Environment Of The Northern Pan-Eurasian Arctic-Boreal Areas	<p>Markku Kulmala  Sergej Zilitinkevich  <a href="mailto:sergej.zilitinkevich@fmi.fi">sergej.zilitinkevich@fmi.fi</a></p> <p>Tuukka Petäjä</p>	<p>The Pan-Eurasian Experiment (PEEX) is a new multidisciplinary, global change research initiative focusing on understanding biosphere-ocean-cryosphere-climate interactions and feedbacks in Arctic and boreal regions in the Northern Eurasian geographical domain. PEEX operates in an integrative way, and aims at solving the major scientific and society relevant questions in many scales using tools from natural and social sciences and economics. The research agenda identifies the most urgent large scale research questions and topics of the land-atmosphere-aquatic-anthropogenic systems and</p>



		<a href="mailto:tuukka.petaja@helsinki.fi">tuukka.petaja@helsinki.fi</a>  Hanna K. Lappalainen <a href="mailto:hanna.k.lappalainen@helsinki.fi">hanna.k.lappalainen@helsinki.fi</a>  Natalia Chubarova <a href="mailto:chubarova@geogr.msu.ru">chubarova@geogr.msu.ru</a>	interactions and feedbacks between the systems for the next decades. Furthermore, PEEEX actively develops and designs a coordinated and coherent ground station network from Europe via Siberia to China and the coastal line of the Arctic Ocean together with a PEEEX-modelling platform. PEEEX launches a program for educating the next generation of multidisciplinary researcher and technical experts. This expedites the utilization of the new scientific knowledge for producing a more reliable climate change scenarios in regional and global scales, and enables mitigation and adaptation planning of the Northern societies. PEEEX gathers together leading European, Russian and Chinese research groups. With a bottom-up approach, over 40 institutes and universities have contributed the PEEEX Science Plan from 18 countries. In 2014 the PEEEX community prepared Science Plan and initiated conceptual design of the PEEEX land-atmosphere observation network and modelling platform. Here we present the PEEEX approach as a whole with the specific attention to research agenda and preliminary design of the PEEEX research infrastructure.
16.	Results and Problems of landscapes Planning and Landscape Governance	Prof., Dr. Kirill Chistyakov <a href="mailto:kirill.chistyakov@gmail.com">kirill.chistyakov@gmail.com</a>  Prof., Dr. Ashot Khoetsyan <a href="mailto:akhoetsian@ysu.am">akhoetsian@ysu.am</a>	1. Landscape Planning, 2. Landscape Analysis, 3. Landscape Governance, 4. Landscape Services.
17.	Sediment redistribution and exogenic processes dynamics in small river basins	Sergey Chalov <a href="mailto:hydroserg@mail.ru">hydroserg@mail.ru</a>  Yulia Kuznetsova <a href="mailto:kuzyulia@gmail.com">kuzyulia@gmail.com</a>  Märker Michael <a href="mailto:michael.maerker@unifi.it">michael.maerker@unifi.it</a>	<p>The integrated study of exogenic processes and sediment redistribution in small river basins is a universal basis for understanding the functioning of river basin as a complex system. The main idea of the session is a combined consideration of sediment sources, sediment pathes to and through the fluvial network. Channel processes in the river are separate elements of the system, and at the same time implement the main connections between the system parts.</p> <p>The purpose of the session is to exchange interdisciplinary experience and results of the studies on small river basin dynamics, share the present fundamental, applied and methodological approaches of hydrology, geomorphology, geology, and other fields of earth science.</p> <p>The thematic session will be particularly focused on the results of the EU FP-7 IRSES Project "Fluvial processes and sediment dynamics of slope channel systems: Impacts of socio economic and climatic change on river system characteristics and related services" as far as any other contribution is also very welcome.</p>
18.	Sustainable business and community development in the Circumpolar North	Oxana Romanova <a href="mailto:oxanadmit@mail.ru">oxanadmit@mail.ru</a>  Tor A. Gjertsen <a href="mailto:tor-arne.gjertsen@uit.no">tor-arne.gjertsen@uit.no</a>	<p>In this session we will present, compare and discuss findings from recent studies of socioeconomic change and development in native and non-native communities and regions in the Circumpolar North. The main purpose of the session will be to improve our knowledge and understanding of the drivers and barriers for sustainable development at the local level. The particular attention will be paid to the contribution of research and development projects towards positive changes in northern settlements. Experiences across Circumpolar countries and regions would provide the reflection on the methodology of research and development projects with focus on differences and similarities in preconditions, organization and results. The session will be open to other participants as well as for discussants.</p>
19.	Technologies of design, management and examination of tourist and recreational clusters	Prof. Viktor Kruzhalin <a href="mailto:kruz@ikio.msu.ru">kruz@ikio.msu.ru</a> ; <a href="mailto:v.kruzhalin@gmail.com">v.kruzhalin@gmail.com</a>	<p>Purpose: To carry out the comparative analysis of technologies of the organization of tourist and recreational activity on the basis of an assessment of creation and management of tourist and recreational clusters.</p> <p>Tasks:</p>



		<p>Ekaterina Aigina  <a href="mailto:eaigina@yandex.ru">eaigina@yandex.ru</a></p>	<ol style="list-style-type: none"> <li>1. To study world experience of creation tourist and recreational clusters and of their management.</li> <li>2. To investigate the main technologies of creation of tourist and recreational clusters.</li> <li>3. To estimate prospects of development of cluster ideology in various regions of the world.</li> <li>4. To investigate ways of further development of cluster approach in tourist and recreational activity.</li> </ol> <p>Relevance:  Experience of many countries of the world showed efficiency of development of tourist and recreational activity on the basis of use of cluster technologies. It allowed the countries who are leading in the industry of tourism to make reach impressive results and to create effective system of tourism and rest in their countries Cluster technologies in Russia and in the countries of the former Soviet Union only begin to take root. It is important to compare experiment of all countries of the world on creation and management of tourist and recreational clusters and to determine ways of cluster technologies to further improvement of tourist and recreational activity.</p>
20.	Urban Climate and Urban planning	<p>Prof. Dr. Sascha Henninger  <a href="mailto:sascha.henninger@ru.uni-kl.de">sascha.henninger@ru.uni-kl.de</a></p> <p>Dr. Martin Rumberg  <a href="mailto:Martin.Rumberg@ru.uni-kl.de">Martin.Rumberg@ru.uni-kl.de</a></p>	<p>In the last decades the subject of environment and climate protection within urban areas attains more and more priority. Not least because of the negative effects of urban climate modifications on the sense of human well-being. People are increasingly sensitized by the global warming and the impacts of weather caprioles. Meanwhile the acute need for action is recognized at the urban scale. The improvement of the urban climate involves a vast potential regarding future environment protection arrangements. Urban planning appropriate for climatic modifications tries to meet the impacts of the urban climate. A narrow dovetailing of the applied urban climatology, which deals with the analysis of local climate and the urban air pollution situation, enables the planners an adequate urban planning with climate and air pollution maps; based on these the application of climate and air pollution maps on physical planning helps to react on problematic issues. According to the geographic location and the size of the urban area to be examined, related to the behavioural patterns of their inhabitants, this could result into different planning assignments. The realization of extensive local climatic investigations is extremely important, as well as an interdisciplinary cooperation with the traffic planning and the urban green space planning office. So the quality of life of millions of people living within urban areas could be improved if the form of these agglomerations were to evolve in a manner appropriate to its climatic conditions. Climate change exerts added stress on urban environments through an increasing number of heat waves, more intense droughts and inland floods compromising urban water supplies, urban infrastructure, urban ecosystems and urban inhabitants as well. These challenges highlight the need for urban agglomerations to rethink how people are deployed and protected, how infrastructure investments are prioritized and how the climatic effect will affect long-term growth and development plans. So applied urban climatology in interaction with applied urban planning could be vital to any notion of sustainability. E. g. it enables individual buildings to make use of passive cooling or heating, it enhances pedestrian comfort as well as activities in outdoor spaces. An applied urban climatology and also an applied urban planning enables an understanding of how the structure of the urban environment within a micro- but also mesoscale affects the urban microclimate and how it is possible to react on possible impacts for the urban landscape.</p>
21.	Urban geography of arts: the co-production of arts and cities	<p>Pauline Guinard  <a href="mailto:pauline.guinard@ens.fr">pauline.guinard@ens.fr</a></p>	<p>Since the end of the 20th century, culture in general (Zukin 1995) and art in particular (Miles 1997) are more and more present in the urban context. Because they are increasingly understood as an integral</p>



		<p>Geraldine Molina  <a href="mailto:geraldine.molina@gmail.com">geraldine.molina@gmail.com</a></p>	<p>part of the urban fabric in a post-industrial era, they are often promoted as key-drivers in urban (re)development strategies (Zukin 1995; Paddison et Miles 2007). Consequently, art is not only taking up space and place in the city but its function and its relationships to the urban environment tend also to be redefined. From art, Art is not only conceived as a specific object installed in the city but also as a tool able to participate in the making of the city itself. Art is thus urbanized while, in return, the city itself is “artialized” (Roger 1997). As such, art is becoming a subject as well as an object for geographers (Volvey 2010; Hawkins 2013) and more especially for urban geographers (Zebracki 2012; Grésillon 2014). Nevertheless, the studies on the relations between art and the city are still fragmented either within geographical area (North America, Europe, East Asia and secondarily Middle East, Africa, etc.) or by types of art (visual art, music, dance, films, poetry, etc.). By bringing together innovative researches that invest different urban contexts and various arts, we hope to overcome these fragmentations by building bridges between cities and arts. With this in mind, this IGU thematic session intends to raise epistemological and methodological issues and participate to strengthen the thoughts on the urban geography of arts. This session aims at developing a general framework to better understand the production of cities through arts, a process that is common to various cities in the world but too rarely questioned. In order to do so, the session will include six presentations examining diverse types of arts (contemporary art, graffiti, literary production) in various urban contexts (Paris, Montreal, Brussels, Tel Aviv, Johannesburg). In each study, the capacity of art(s) to participate, to transform or to contest the way cities are today mainly produced will be analyzed. Do(es) art(s) contribute to the making of more inclusive, democratic and participatory cities across the world? Or, on the contrary, do(es) art(s) reinforce and legitimate an exclusive and selective way of building cities?</p>
22.	Urban Governance and Inclusive Cities in India	<p>Dr.Tapash Biswas  <a href="mailto:tapashbiswas@hotmail.com">tapashbiswas@hotmail.com</a>  OR  <a href="mailto:tapash.biswas@nic.in">tapash.biswas@nic.in</a></p> <p>Ashok Sahay  <a href="mailto:sahayashok@hotmail.com">sahayashok@hotmail.com</a></p>	<p>Inclusiveness of the city is to change for the empowerment of the people through decentralization governance by broadening and deepening the democratic system. Such empowerment and governance would enable effective articulation of the real problem and their solution for protecting the interests of the urban poor. This would result in inclusive city. The exercise of political, economic and administrative authority in the management of a district affairs at all level comprises mechanism, process of institutions through which citizens and groups articulate their interest and exercise their legal rights to meet their obligation and meditate their differences. The quality of urban governance depends on the way understanding between individuals and institutions as well as interaction and co-operation between, public and private plan which manage the common affairs of the city – therefore will be crucial. Institutionalization of Stake holder’s participation in urban governance has many and far reaching implications. One of the greatest challenges of the coming “urban millennium,” therefore, will be to create a new urban citizenship. New roles and relationships between national government, city government, the private sector and civil society are required to address the challenges posed by the urbanizing and globalizing world. This is one of the central messages of the: a country’s global success rests on local shoulders. To humanize the city is to build citizenship, making the rights of its inhabitants effective and making possible to exercise their responsibilities once. For the good of all citizens, city and state must become political partners rather than competitors. Good Governance is participatory, transparent and accountable, effective and equitable if it promotes rule of law</p>
23.	Urban-rural Transformation in the Euro-Asian ontinent	<p>Yansui Liu  <a href="mailto:liuys@igsnrr.ac.cn">liuys@igsnrr.ac.cn</a></p>	<p>The thematic session focuses on the research of urban-rural transformation in the Euro-Asian continent. The initiative is mainly based on the fact that the continent contains places of the major</p>



		<p>Hans Westlund  <a href="mailto:Hans.westlund@abe.kth.se">Hans.westlund@abe.kth.se</a></p>	<p>developed countries and typical developing countries which are under drastic transformation, but of different contents.</p> <p>Europe is ahead of Asia in urbanization and industrialization development and social inclusion, justice, better environment and sustainability have become the core of urban-rural transformation. Most Asian countries endeavor to promote economic growth, nevertheless, enlarged urban-rural inequalities were often induced due to biased policies. What we can see are the coexistence of growing prosperous cities and decaying countryside e.g. hollowing villages in China and shrinking/dying countryside in Sweden.</p> <p>How to coordinate urban and rural development to reduce urban-rural inequalities? How to manipulate the market, political and social forces to revitalize the decaying countryside? How to achieve better and high-quality urbanization while not damaging either cities or countryside, especially when the EU-Asia continent is facing the world economic recession? Bearing these questions in mind, the session aims to provide a platform for Euro-Asian scholars to communicate and share their knowledge of urban-rural transformation studies. What we want to emphasize is that Asian countries could learn quite much European experiences in promoting socioeconomic and environment sustainability while the study of typical cases in Asia could also contribute to the knowledge of urban-rural transformation in the world.</p> <p>We are happy to invite Prof. Michael Woods and Prof. Hans Westlund to present cases of urban and rural transformations in UK and Sweden. Prof. Yansui Liu and Prof. Hualou Long who are the leading persons in China's urban-rural transformation study will share their years of research in typical areas in China. We do hope this session can draw people's attention and interest in urban-rural transformation studies and regional sustainability which highly corresponds to the theme of the 2015 IGU Regional Conference.</p>
24.	Water resources change in Asia in XXI century	<p>R.B.Singh  <a href="mailto:rbsgeo2@gmail.com">rbsgeo2@gmail.com</a></p> <p>Sergey Chalov  <a href="mailto:hydroserg@mail.ru">hydroserg@mail.ru</a></p> <p>Daniel Karthe  <a href="mailto:daniel.karthe@ufz.de">daniel.karthe@ufz.de</a></p>	<p>In Asia, water resources are not only a determining factor for a wide range of ecosystems. In a historical perspective, water availability also played a significant role for the emergence and decline of civilizations. Today, water shortages and deteriorating water quality are affecting large parts of Asia. While in some regions, arid or semi-arid climate and thus limited resources are an important factor, in other regions high population densities and massive water usage in the agricultural and industrial sectors play a key role. In the early 21st century, global climate change, population growth, river damming, large-scale water abstractions and rising levels of pollution exert multiple pressures on the region's water resources, aquatic and terrestrial ecosystems. Water scarcity and pollution threaten the livelihood of populations locally and in transboundary settings by a growing competition over a limited resource. This context is of particular importance for the scientific community and is considered to be the subject of the proposed thematic session. The contributions of the session will be published in a Springer Series "Advances in Geographical and Environmental sciences".</p>