1. IGU Commissions
C01 APPLIED GEOGRAPHY
C02 ARID LANDS, HUMAN KIND AND ENVIRONMENT
C03 BIOGEOGRAPHY AND BIODIVERSITY
C05 COASTAL SYSTEMS
C06 COLD REGION ENVIRONMENTS
C08 DYNAMICS OF ECONOMIC SPACES
C09 ENVIRONMENT EVOLUTION
C10 GENDER AND GEOGRAPHY
C11 GEOGRAPHICAL EDUCATION
C13 GEOGRAPHY OF GOVERNANCE
C14 GEOGRAPHY OF THE GLOBAL INFORMATION SOCIETY
C15 GEOGRAPHY OF TOURISM, LEISURE, AND GLOBAL CHANGE
C16 GEOHERITAGE
C17 GLOBAL CHANGE AND HUMAN MOBILITY
C18 HAZARD AND RISK
C19 HEALTH AND ENVIRONMENT
C20 HISTORY OF GEOGRAPHY
C22 ISLANDS
C23 KARST
C24 LAND DEGRADATION AND DESERTIFICATION
C26 LAND USE AND LAND COVER CHANGE
C27 LATIN AMERICAN STUDIES
C28 LOCAL AND REGIONAL DEVELOPMENT

C29 MARGINALIZATION, GLOBALIZATION, AND REGIONAL AND LOCAL RESPONSES
C30 MEDITERRANEAN BASIN
C31 MODELING GEOGRAPHICAL SYSTEMS
C32 MOUNTAIN RESPONSE TO GLOBAL CHANGE
C33 POLITICAL GEOGRAPHY
C34 POPULATION GEOGRAPHY
C35 SUSTAINABILITY OF RURAL SYSTEMS
C36 TOPONYMY (JOINTLY WITH INTERNATIONAL CARTOGRAPHIC ASSOCIATION)
C38 TRANSPORT AND GEOGRAPHY
C39 URBAN COMMISSION: URBAN CHALLENGES IN A COMPLEX WORLD
C41 GEOMORPHOLOGY AND SOCIETY

2. Joint Commissions

3. Key Topics
(1) CLIMATE CHANGE AND GLOBAL UNDERSTANDING
(2) ENVIRONMENT-HEALTH AND WELFARE
(3) GEOGRAPHICAL SCIENCES AND FUTURE EARTH
(4) GEOGRAPHY IN DIFFERENT CULTURES
(5) URBANIZATION AND SUSTAINABLE DEVELOPMENT

4. Forums, Symposia & Special Sessions
## Approved Sessions of IGU Commissions

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<td></td>
<td><strong>C12.01 Applied Geography</strong></td>
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<tr>
<td>1</td>
<td>Applied Cultural and Social Geography</td>
<td>Eliahu Stern <a href="mailto:elistern@bgu.ac.il">elistern@bgu.ac.il</a></td>
<td>We are planning 15-16 papers + a business meeting on applied aspects of cultural and social geography aiming to demonstrate the practical value and contribution of geography in solving real world problems in the areas of well-being, culture and social issues. Papers will include applied studies concerning cultural issues, cultural diversity, and topics of well-being. It is quite an umbrella though dealing with the increase of life expectancy and the individual’s free time, cultural opportunity space, and so. Examples might include the contributions of geographers to the work of UNESCO in inscribing world heritage sites, defining cultural and natural buffer zones, determining Outstanding Universal Values for sites, etc. Papers might also include applied issues of Spatial Psychology and space, spatial behavior modelling, and applied virtual geography.</td>
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<td></td>
<td><strong>C12.02 Arid Lands, Human Kind and Environment</strong></td>
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<tr>
<td>1</td>
<td>Sustainable Development in Arid Lands</td>
<td>Mahmoud Ashour <a href="mailto:Ashour43@hotmail.com">Ashour43@hotmail.com</a> Olaf Bubinzer</td>
<td></td>
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<tr>
<td>2</td>
<td>Water Crises in Arid Environment</td>
<td>Mahmoud Ashour <a href="mailto:Ashour43@hotmail.com">Ashour43@hotmail.com</a></td>
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<tr>
<td>3</td>
<td>Sand Dunes and Sand Encroachment</td>
<td>Mahmoud Ashour <a href="mailto:Ashour43@hotmail.com">Ashour43@hotmail.com</a></td>
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<tr>
<td>4</td>
<td>Evidences of Paleo</td>
<td>Mahmoud Ashour</td>
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</table>
Mountain ecosystems are exceptionally fragile and susceptible to climate and land use change, and mountain regions worldwide provide increasing evidence of ongoing impacts of climate change on physical and biological systems. Respective modifications of mountain ecosystems constitute a significant threat to the wide range of ecosystem services mountains provide to human communities in highlands and in distant lowland regions. The session focuses on climate-driven changes in the cryosphere, hydrosphere, pedosphere, and biosphere and will discuss new research results and its implications for ecosystem services and socioeconomic systems. Presentations are welcome that focus on new research findings from diverse mountain regions of the world.

One of the sub-branches of biogeography experiencing rapid growth in recent years is conservation biogeography which involves the application of biogeographic principles, theories and analyses regarding biodiversity conservation. It is beyond dispute that biogeographic science, deeply rooted in the geographic, ecological and evolutionary
<table>
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<tr>
<th>3</th>
<th>Recent Developments and Expansions in Biogeography</th>
<th>Udo Schickhoff <a href="mailto:udo.schickhoff@uni-hamburg.de">udo.schickhoff@uni-hamburg.de</a></th>
<th>Hongyan Liu <a href="mailto:lhy@urban.pku.edu.cn">lhy@urban.pku.edu.cn</a></th>
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Biogeography has a long and distinguished history, but only emerged as a recognized, rigorous and seminal science in the second half of the twentieth century. This session highlights contemporary trends and expansions, and previews future prospects without neglecting the historical development of biogeography from ancient times to the twenty-first century. Fostered by the acceptance of plate tectonics, the equilibrium theory of island biogeography, the rapid advancement of new perspectives and methods in historical biogeography, and revolutionary advances in compiling, visualizing, and analyzing spatially explicit information, biogeography evolved into a rigorous science during the second half of the twentieth century. Currently, major active sub-fields are context of nature, is in a position to make significant contributions to the conservation of biodiversity. Biogeography was central to early theory formation within conservation biology, which became established as an applied research discipline in parallel with the expansion of nature conservation movement during the 1970s and 1980s. Recognizing the need to counteract complex real-world problems with integrative, interdisciplinary approaches, the scope of conservation biology expanded to incorporate a broader range of disciplines including biogeography and the social sciences. Conservation biogeography has emerged as a distinctive and thriving sub-field of conservation biology and of biogeography focusing on pattern and process at coarser scales of analysis (landscape, regional, global) and contributing scientific guidance for conservation planning and effective biodiversity management. Presentations are welcome which focus on biogeography of degradation (land-use transformation, habitat fragmentation, homogenization and other human-induced impacts), climate change impacts, species distribution modeling, processes (colonization, dispersal, invasion, disturbance, extinction, range expansion, resilience, speciation), inventory, mapping and data issues, characterizing biotas (conservation status, diversity indices and patterns, rarity, endemism, range size), conservation planning, and methodological issues.
phylogeography, macroecology, and conservation biogeography. Biogeography is on the way to becoming a ‘big science’, entering an era of increasingly integrative and multi-faceted approaches, increasingly accessible and available data, tools, and techniques, and interdisciplinary collaboration. Given unprecedented human impacts and the dramatic transformation of the Earth system, biogeography matters more than ever; both in the discovery and in the conservation of biodiversity. Presentations are welcome which exemplify recent developments and expansions of biogeographic science.

### C12.05 Coastal Systems

<table>
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<tr>
<th></th>
<th>Harmonizing Pacific Coastal Oceans: Sustainability For a Future Earth</th>
<th>Zhongyuan Chen <a href="mailto:z.chen@ecnu.edu.cn">z.chen@ecnu.edu.cn</a></th>
<th>Yongqiang Zong <a href="mailto:yqzong@hku.hk">yqzong@hku.hk</a></th>
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<td>1</td>
<td>The Pacific Ocean will be an important focus in the 21st century for Asia, Oceania, and the Americas. The coastal zone around the Pacific is densely populated with accelerated migration into coastal areas. Undoubtedly, people in this zone benefit greatly from the rich natural resources resulting from the interaction of land and ocean, which provides a firm base for our human community to have substantially developed from early agricultural civilization to modern society. However, these resources are being increasingly degraded by the dual forcings of climate change and anthropogenic activities. Intensification of coastal hazards, such as coastal floods, coastal erosion, river-basin dam construction, freshwater shortage, increasing nutrients/fertilizer application, and the impacts of earthquakes, typhoons and tsunami, is associated with these dual forcings. These are prime threats for our future development. This coastal session will provide a chance for a wide range of physical and social scientists, students, administrators, stakeholders and decision makers, who will bring invaluable insights and experiences on the state of the coast, to be shared in this unique quadrennial forum. The final goal of this session is to move towards much wiser use and management of these coastal resources in the course of future societal progress.</td>
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### C12.06 Cold Region Environments

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<th>Sustainability and</th>
<th>Tatiana Vlasova</th>
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<tr>
<td>1</td>
<td>This session is embedded in many initiatives devoted to monitor, assess sustainability and</td>
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| Resilience Monitoring in the Arctic | tatiana.vlsv@gmail.com Andrey Petrov andrey.petrov@uni.edu | resilience in the rapidly changing Arctic under impacts of climate and social drivers of change. Among these there are such Arctic Council’s flagships initiatives as ‘Adaptation Actions for a Changing Arctic’ and ‘Arctic Resilience Report’, 'Arctic Sustainability: Synthesis of Knowledge' under the Arctic Belmont Call and many others where indicators for sustainability and resilience are developing. Monitoring sustainability and resilience through indicators serves several goals and functions: focus on interactions between social and ecological system, building resilient socio-ecological systems increasing learning and knowledge capacities of local communities, their ability to shape change planning. |
| 2 Land Cover Change and Ecosystem Dynamic in High Mountain Asia | Yili Zhang zhangyl@igsnrr.ac.cn | The geosciences offer detailed spatial and temporal descriptions of physical and ecological change in the cold regions. Geoscience also helps us to document hazards, risks and possibilities. The IYGU offers an opportunity to cold regions science and human science to translate, innovate and mobilize knowledge and experience in support of the goals of the IYGU and of the 2016 IGC, in order to achieve more sustainable and just relationships locally and globally. It is now necessary to transform our knowledge into deeper understanding. We encourage papers for this session that give priority to building global understanding of the significance of the cold regions to climate, ecosystems, human societies and development, and to transformation in social-cultural–ecological systems. |
| 3 The International Year of Global Understanding (IYGU) and the Cold Regions | Nancy Doubleday doublen@mcmaster.ca Tatiana Vlasova tatiana.vlsv@gmail.com Marie-Jeanne Royer mar71@aber.ac.uk | |
| C12.08 Dynamics of Economic Spaces | Christine Tamasy christine.tamasy@uni-vechta.de Neil Reid | The IGU Commission on ‘The Dynamics of Economic Spaces’ aims to play a leading international role in the development, promulgation and dissemination of new ideas in economic geography. It has as its goal the development of a strong analytical perspective on the processes, problems and policies associated with the dynamics of local and regional economies as they are incorporated into the globalizing world economy. In recognition of |
| 2 | Placing Finance in Urban and Regional Development | Fenghua Pan  
panfenghua@bnu.edu.cn  
Dariusz Wójcik  
dariusz.wojcik@ouce.ox.ac.uk  
Simon Zhao  
sxzhao@hku.hk |
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<td>the increasing complexity of the world economy, the Commission's interests include: agri-food networks, industrial production; business, professional and financial services, and the broader service economy including e-business; corporations, corporate power, enterprise and entrepreneurship; the changing world of work and intensifying economic interconnectedness. The proposed session in its broad scope focuses on new themes, new ideas and new approaches with respect to the dynamics of economic spaces.</td>
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<td>The last three decades have witnessed the growing importance of finance in shaping economy, politics, and society. In particular, finance has played a key role in urban and regional development. With the fast growth of financial and business services sector in metropolitan areas, more cities have been involved in the competition for financial center status, while the rise of offshore financial centers has been reshaping the global geography of finance. The relocation of financial activities within and across regions may be key to the restructuring of the urban form and urban system. Financing for urban infrastructure has been a major concern for urban and regional growth, and the rapid accumulation of local government debt has become a world-wide phenomenon. The external financing has become increasingly important for the upgrading and restructuring of regional clusters. The well-functioning capital and venture capital markets remain crucial to entrepreneurship, high-tech industry and innovation. In addition, financial globalization poses the question on the strategic coupling between cities, regions and the Global Financial Networks. To address these challenges and map these trends more research is urgently needed that advances our understanding of the role of finance in urban and regional development.</td>
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| | | We are seeking papers for this session focused on but not limited to the following topics:  
Financialization of the economy  
Financial Globalization  
Global Financial Networks |
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<tr>
<th>Session</th>
<th>Title</th>
<th>Lead Authors</th>
<th>Description</th>
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<tr>
<td>3</td>
<td>Foreign Direct Investment and Migration</td>
<td>Martin Franz, Nuri Yavan</td>
<td>The objective of the Session is to analyze the relation between Foreign Direct Investment (FDI) and migration. Research on this topic has been growing in the fields of economics, migration studies and economic geography. However, research contributions are still isolated from each other. While most econometric contributions are devoted to the question of complementarity or substitutability of FDI and migration, qualitative analysis in human geography and migration studies focus on specific phenomena such as the role of diasporas and expatriates within FDI, the international labor markets within transnational corporations and transnational entrepreneurs. In this session we want to combine qualitative and quantitative approaches to analyze and discuss the very complex links between migration and FDI from multiple levels (individual, firm and aggregate level) and on different scales.</td>
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<tr>
<td>C12.09</td>
<td>Environment Evolution</td>
<td>Andrei Velichko</td>
<td>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</td>
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International/regional financial centers
Offshore financial centers
Financial and business services complex
Financing for urban infrastructure
Public finance and local government debt
Geography of financial practices (including venture capital, banking, securities industry, stock exchanges, institutional investors)
Finance and entrepreneurship
Financial technology and digital finance
Financing and industrial cluster development
Financial networks and world cities
<table>
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<tr>
<th>Session</th>
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<td>1</td>
<td>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, testate amoebae, 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.</td>
<td>Tatjana Boettger <a href="mailto:tatjana.boettger@ufz.de">tatjana.boettger@ufz.de</a></td>
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<tr>
<td>2</td>
<td>Climate - Vegetation Interaction Under Past and Future Climate Conditions</td>
<td>Alexander Olchev <a href="mailto:aoltche@yandex.ru">aoltche@yandex.ru</a>, Elena Novenko <a href="mailto:lenanov@mail.ru">lenanov@mail.ru</a></td>
<td>The session is aimed to bring together the specialists working in the fields of climate, vegetation and land use changes. The climate changes have significant impact on growth and functioning of the different plant communities. On the other hand, the climate is very sensitive to land cover and vegetation changes. What are the main mechanisms of climate - atmosphere interactions in past and at present, how the vegetation and land use changes influence the climate system and what is the possible response of the different plant communities to climate change in future 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, ecologists, paleogeographers, modeling experts, etc.) The main topic of the session: 1) Climate and vegetation changes in the past epochs; 2) Modern changes of climate and vegetation; 3) Projections of possible future vegetation and land use changes under different climate change scenarios. 4) Men - climate - vegetation interaction under climate changes.</td>
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<tr>
<td>3</td>
<td>Prehistoric Human Occupation and Environmental Changes</td>
<td>Fahu Chen <a href="mailto:fhchen@lzu.edu.cn">fhchen@lzu.edu.cn</a></td>
<td>Tibetan Plateau, the highest and largest plateau of the world, and its surrounding mountains have exerted significant influence on the global climate and environment evolvement. The high plateau is very sensitive to global climate change, and hostile for human permanent settlement due to its anoxic and harsh environment. Human began to</td>
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### on Tibetan Plateau and Surroundings

- David Madsen  
  [madsen@mail.utexas.edu](mailto:madsen@mail.utexas.edu)
- Georg Miehe  
  [miehe@staff.uni-marburg.de](mailto:miehe@staff.uni-marburg.de)
- Dongju Zhang  
  [djzhang@lzu.edu.cn](mailto:djzhang@lzu.edu.cn)

Human then strongly changed the natural forestry on the mountains to grassland on the high Tibetan Plateau, especially through agriculture and pastoral economies since the middle Holocene, while deteriorating environment in turn tremendously affected social development in this high Tibetan Plateau.

The aim of this symposium is to bring an up-to-date perspective on the environmental and climatic change and its impact on the process of prehistoric human occupation on the Tibetan Plateau since the Late Pleistocene. We invite scholars who can make presentations on this issue from multi-disciplinary including geology, geography, archaeology, genetics, ecology and biology to convey and exchange academic viewpoints on any aspects of the field. The proposed session will include but not limited to:

1. Environmental change and climate variability during Late Quaternary;
2. When, where and how prehistorical people occupied the plateau;
3. How human affected the natural environments through grassland use and agriculture development.

### Climate Change and Human-Environment Interaction From Neolithic to Historical Periods

- Fahu Chen  
  [fhchen@lzu.edu.cn](mailto:fhchen@lzu.edu.cn)
- David Zhang  
  [zhangd@hkcc.hku.hk](mailto:zhangd@hkcc.hku.hk)
- Guanghui Dong  
  [ghdong@lzu.edu.cn](mailto:ghdong@lzu.edu.cn)
- Peter Turchin  
  [Peter.Turchin@UConn.edu](mailto:Peter.Turchin@UConn.edu)

The Neolithic revolution in the early Holocene promoted the shift towards food production from hunting and gathering to agriculture and pasture economy, and greatly changed the relationship between humans and their environments. From the Neolithic a rapid increase of human population occurred, and with the rise and fall of ancient cultures and civilizations, and changing environments, foundation for modern civilizations formed. Climate fluctuations over the last the period exerted the directions on human settlement spaces, cultural evolution and civilizations; while human activities in turn affected their surrounding environments. The period of interest saw humans exert influence and changed the nature of biological systems and earth surface processes, and ultimately became a major driver of changes at regional and global scale. These, in-turn, greatly affect human social and economic systems.

The session aims to explore the trajectory of climate change and human-environment interactions.
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1. **MART Babies - SMART Cities: From the intimate body to the Asian city**

   - **Anindita Datta**  
     Anindita.dse@gmail.com
   - **Ayona Datta**  
     a.datta@leeds.ac.uk

   From the growth of Medically Assisted Reproduction Technology (MART) to the rising desire for SMART cities and citizens in Asia, there is now an increased recognition that technology is an essential tool for ‘improving’ the quality of life at different scales. While the trend of commissioning designer babies engineered through advances in new reproductive technology as well as the production of intelligent or networked cities is not new, the rising tide of smart technologies pervading everyday life is a relatively new phenomenon in the global south, seen in the aftermath of liberalisation of national economies. In this new phase, the global south provides ‘wombs for hire’ while it is also the global south which has become the new markets for smart technologies seen in the rise of SMART cities and neighbourhoods. Both processes share interesting similarities in that they embody the crucial role of technology, particularly IT, screening and surveillance technology, global capital flows and neo-liberal policies in the backdrop of a shrinking State. More crucially they embody the strategic use of desire – not only as affect, but also as a material need associated with an economic value. We argue that these key drivers have acted in concert to spawn structural spaces in Asia where MART and SMART systematically appropriate and colonise particular bodies and urban spaces. Such colonisation and appropriation can extend from commissioning wombs to regulating access to urban space. The gendered and class implications of this are obvious, as also are
the bio politics and moral geographies of space -from the body to the geopolitical. We note also the near clinical distancing of the producers of MART enabled babies and IT enabled SMART cities from the objects of their labour, a key element both in surrogacy and the new SMART urban spaces, together with the migration of everyday life from real to digital spaces. We are thus interested in exploring the links between the growing penetration of technology into the production of natal bodies and urban neighbourhoods, the increasing digitisation of everyday life and the growth of ICT enabled cities. We invite papers with a focus on Asia on the following broad sub themes:
(i) Geopolitics of technologies of MART and SMART.
(ii) The Biopolitics of MART and SMART in Asia.
(iii) Manipulation of desire and territory – of babies, bodies and cities.
(iv) Transnational and translocal flows of capital and people in MART and SMART.
(v) The digitisation of social encounters and everyday life.

| 2 | Mapping Changing Landscapes of Care in Asia: Towards Gendered Theoretical and Empirical Frameworks | Anindita Datta
Anindita.dse@gmail.com
Ajay Bailey
ajaybailey@gmail.com
Selim Jahangir
selim.dse@gmail.com |
---|---|--------------------------------|
|  | How Care is constructed and the implications for the caring relationship has been a matter of debate for the last two or more decades within geographical and feminist research. Since the 1990s geographical work has focused on care and responsibility within a global framework. The gendered nature of care and care practices are now well known. What is also established is that care and care relationships are located in, shaped by and shape particular spaces and places that ranges from local to global. Care provision as a gendered material/physical entity is often viewed as occurring in particular places at particular times, while the emotional entity is seen to be less bounded by place and time. The globalisation of care, aspirational migration and changing family and work patterns have opened up new questions in the field of care geographies in particular and the geographies of gender in general. How for example does aspirational migration among women and men affect their care responsibilities? How do three generational families distribute care among recipients? Have traditional care practices for the older adults and
The main idea behind mapping a changing ‘carescape’ in the Asian context is to understand the altered relations of care with space, time and gender. This session offers an opportunity to discuss such altered and gendered landscapes of care in Asia to arrive at a more nuanced understanding of various dimensions of care. We invite abstracts of about 350 words on any of the following broad themes:

1. Perceptions of care: Cultural and gendered dimensions
2. Traditional practices related to child and geriatric care
4. Emerging issues in care practices and provision particularly as they intersect with gender
6. Care arrangements and changing family and cultural values
7. Aspirational migration and distant care for children and older adults
8. Intergenerational care gap and “care squeezes”
9. The role non-kin and commercial agencies in geriatric care
10. Methodological issues in researching care

| 3 | Gendered Rights: Space, Culture and Society | Sahab Deen  
sahabjnu@gmail.com  
Vijay Kumar Baraik  
vijaybaraik@yahoo.com | Gendered Rights in feminist geography refers to those rights which are highly gendered in nature and reserved for female only, like caring responsibilities of the family especially to the children, domestic works, widowhood etc. On the other hand, some rights are restricted/deprived to the women such as right to divorce, right to education, right to have the property, right to have the share in father’s property, right to become the head of the family, mobility etc. These highly gendered and inaccessible rights to the women are still prevailing in different culture and society across the globe. These rights are forcefully imposed on women by social norms and traditions have been ingrained in the psyche of the society overarching the female's life. The session ‘Gendered Rights: Space, Culture and Society’ offers an opportunity to debate over the issues of gender specific rights which are forcefully imposed/deprived to the women. The session as a whole aims to take stock of current scenario of debates over the gendered rights, and open up possible new directions |
of research in feminist and gender geography. Furthermore, we expect to go through criticism by presenting solutions and approaches to study gender geography. We appreciate the abstracts/papers submission which focus on the following issues:

The papers aiming the gendered rights from feminist perspectives.

Paper focussing on the cultural aspects, like customs, tradition, taboos and practices which are imposed/restricted to the women.

Spatial analysis of the gender inequality in rights with current scenario and future perspectives of inclusive development of the women.

Papers emphasizing on formulation of concept and methodologies to the study of gendered rights.

| 4 | Addressing Gendered Insecurities in the Urban Global South | Linda Peake lpeake@yorku.ca | The current era is framed by unprecedented levels of movement into urban areas in the global South. The scale of this movement has attracted increased multilateral efforts to lift people out of poverty, most recently through the Millennium Development Goals, the forthcoming Sustainable Development Goal 11 that aims to “Make cities and human settlements inclusive, safe, resilient and sustainable”, and Habitat III. Notwithstanding these efforts, increasing levels of inequality are being experienced through economic, social and environmental dimensions of insecurity in everyday lives in cities. Despite evidence that women’s roles are central to ensuring the security, and hence sustainability, of urban communities, little is known of how these developments are reconfiguring the characteristics and contours of gendered insecurities. Yet we do know that urbanisation is deeply gendered and that gender remains the basic determinant of inequality globally. Thus we argue that urban inequalities are best understood in terms of the gendered insecurities through which are experienced and are defined here as having three dimensions:

(i) **Economic insecurity**: the condition of not having a stable income or other resources (including property) to support a standard of living now and in the |}

Karen De Souza Red_thread@gol.net.gy
Social insecurity: the insecurity of one's place and rights within the city characterised by precarious social relations, hierarchies of difference, such as racialised ethnic and religious differences, and social income insecurity. Social inequalities are inclusive of:

- Physical insecurity: the condoned norms of (often unchallenged) practices of gender-based violence against women and girls (including sexual assault, domestic violence, threats of violence, restrictions from public space); and
- Emotional insecurity: a sense of vulnerability or instability, a fear of social decline and of the future, underlaid by a lack of hope;

- Environmental insecurity: the (in)ability to cope with environmental changes (including climate change) or risks as well as access to resources, including food, water and energy;

Environmental inequalities are inclusive of: Energy insecurity: the condition of being dependent upon fossil fuels as well as issues of fuel poverty, energy equity, sustainability and growth.

The presentations will address transformations in urban inequalities via the examination of gendered insecurities in five cities in the global South: Georgetown (Guyana), Tehran, Mumbai, Shanghai, and Ibadan. Through the formation of a transformative knowledge network comprising feminist academics and activists, the papers reveal the pressing need for reductions in gendered urban insecurities as a crucial component of sustainable cities and urban justice, achievable through collective action and effective policy, informed by quality research.

The paradigm of multiculturalism promotes the cultural recognition and rights of minority groups within society and the polity. However, critics of multiculturalism argue that it presents only a superficial veneer that glosses over the more substantive politics of
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<tr>
<td>16</td>
<td>Elaine Ho</td>
<td><a href="mailto:elaine.ho@nus.edu.sg">elaine.ho@nus.edu.sg</a></td>
<td></td>
<td>difference. Feminist scholars in particular highlight challenges to the pursuit of gender justice posed by the competing demands of different cultural groups and intersecting axes of difference within the framework of multiculturalism. Contemporary migration arguably exacerbates such politics of difference by bringing into a polity, new population flows that span not only gender but a wider range of skills, cultural, ethnic and/or nationality backgrounds. Our panel calls for papers that take a feminist perspective in examining the gendered aspects of migration and the politics of difference within multicultural frameworks. How does gender difference continue to be constructed or accentuated within contemporary discourses of migration and multiculturalism? How may feminist perspectives inform multiculturalism in practice towards achieving more socially just outcomes? Through these discussions, the panel aims to not only critically reflect upon the gendered aspects of migration and multiculturalism, but also consider the potential opportunities availed through feminist approaches towards multiculturalism amidst old and new migrations.</td>
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<td>6</td>
<td>Island Bodies</td>
<td>Marcella Schmidt di Friedberg</td>
<td><a href="mailto:stefano.malatesta@unimib.it">stefano.malatesta@unimib.it</a></td>
<td>Rosamond King, in her brilliant book “Islands Bodies” (2014) examines sexualities, interracial relations, violence, and repression in the Caribbean experience, and how they are portrayed in literature, music, film, and popular culture. The session “Islands Bodies” offers an opportunity to debate over the relationship between islands, gender and bodies in all kind of different geographical contexts and interpretations. The session as a whole aim to compare, in a critical way, the binomial “islands” and “bodies” across different societies, cultures and islands spaces across the world and open up possible new directions in the research of feminism, gender, sexuality, and society. We expect to go through debates over new-determinism, sexualities, interracial relations, age, stereotypes, representations - in literature, visual arts, music, all kind of media, popular culture, tourist guides - in a wide sense. We encourage the abstracts/papers submission that address theoretical issues and local studies in different islands contexts</td>
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| 7 | Doing Feminism in Urban Geography: Interrogating Theory Praxis | Fran Klodawsky  
fran.klodawsky@carleton.ca  
Ebru Ustundag  
eustundag@brocku.ca | The goal of this special session is to continue and extend a series of conversations that began in 2014 in Omaha (First International Conference of Feminist Geographers) and continued in 2015 in Milwaukee (Gender and Geography Commission pre-conference) and Chicago (AAG). Feminist urban geographers explored spaces “between hope and despair” where they reflected on their own enactments of feminist geography: in the classroom, in interactions with research subjects, in relation to theories of “good” critical scholarship, and in interpretations of the meanings of feminist praxis. We look forward to exploring these matters at the Gender and Geography Commission meetings in Beijing in 2016. In particular we are interested in further explorations of the following themes:  
• Embodiments of feminism and feminist praxis in urban research  
• Knowledge production as performativity  
• Being a feminist killjoy  
• Spaces between governance and activist feminism  
• The contributions of Black Feminist Thought  
• Interventions, theory and feminist praxis  
• Situated knowledges, generalization and power  
• Academic feminism and social change |
| 8 | Gender in Regeneration Projects: (Dis) Empowerment? Civil Engagement? | Tovi Fenster  
tobiws@post.tau.ac.il | Reconstruction, regeneration and urban re-building projects have become the main tools for city’s development around the world. Such dramatic tangible changes are usually carried out without the consent and agreement of residents living in regenerated areas especially if they are poor and marginalized. Nevertheless, there are more and more cases in which residents do object and resist and sometimes even initiate negotiations with authorities or private entrepreneurs regarding the terms of regeneration. In light of this, the session aims to update and revise terms related to planning with communities (PwC) approaches such as civic capacity from a feminist and gendered |
perspective and to explore the role women and men play in such endeavors in order to find out whether gender identities are significant components in promoting or objecting to such initiations.

In light of these, potential presenters are invited to submit abstract in the following themes:
- The role of gender identities in case studies projects of urban regeneration
- Cultural constructions of gender and their affect on the role women and men play in urban regeneration projects
- Gender (dis) empowerment in urban regeneration?
- Gender and scale in regeneration projects

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9 Dance, Bodies and Embodiment as Constructing Cultures, Economies and the Nation

Tovi Fenster
tobiws@post.tau.ac.il

Adopting Pine and Kuhlke's definition of dance as a: 'choreographed practice driven by social traditions'...’through which to explore the interconnections across scales, and between sites’ (2014, vii, xii), this session aims to focus on the geographies of dance as political acts, as social constructions of ‘self’ and ‘other’ and as local/global authentic and/or market oriented performances made in order to increase tourism economic profits.

As the dancing body is a crucial space within which ideologies, actions, economies and emotions are made manifest, the session aims to discuss issues such as: the individual as well as communal motivations of dance; the relations between the individual dancer’s perceptions of him/herself; of the dance as a self/community expression; of formations of belonging, of the role of the dance and the dancer in constructing the nation and distinguishing between self and other.

Potential presenters are invited to submit abstracts in the following themes:
- The body, embodiment and dance as corporal negotiations (Nash, 2000) of the political, the social, and the cultural and the economic dimensions
- Representations of dance as ‘true’, ‘authentic’ or culturally and profit constructed
- Dance as formatting spatial embodied symbolic orders (private/public ; forbidden/
permitted; modest/immodest)
- Dance as (re) constructing the nation and belonging
  Dance as a local/global neo-liberalized performance

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<thead>
<tr>
<th>C12.11 Geographical Education</th>
<th>Research which examines the value and values of a Geographical Education</th>
<th>Professor Joop van der Schee <a href="mailto:j.a.vander.schee@vu.nl">j.a.vander.schee@vu.nl</a></th>
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<tr>
<td>2</td>
<td>Research in ways geographical education may contribute to sustainability and environmental awareness</td>
<td>Prof. John Lidstone, Dr. Clare Brooks &amp; Prof. Joop van der Schee <a href="mailto:j.a.vander.schee@vu.nl">j.a.vander.schee@vu.nl</a></td>
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<td>3</td>
<td>Research in geographical education, geo-spatial technologies and information communication technologies</td>
<td>Prof. John Lidstone, Dr. Clare Brooks &amp; Prof. Joop van der Schee <a href="mailto:j.a.vander.schee@vu.nl">j.a.vander.schee@vu.nl</a></td>
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<td>Research on pedagogy in Geographical Education</td>
<td>Prof. John Lidstone, Dr. Clare Brooks &amp; Prof. Joop van der Schee <a href="mailto:j.a.vander.schee@vu.nl">j.a.vander.schee@vu.nl</a></td>
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<td>5</td>
<td>Research on comparative standards and National Curricula in international Geographical Education</td>
<td>Prof. John Lidstone, Dr. Clare Brooks &amp; Prof. Joop van der Schee <a href="mailto:j.a.vander.schee@vu.nl">j.a.vander.schee@vu.nl</a></td>
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<td>Research on the current status of Geographical Education across the world – can goals and objectives be harmonised internationally?</td>
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<th>Research in the preparation of geography teachers at all levels, including evidence of their effect on affective goals such as shaping a harmonious world</th>
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<td>Prof. John Lidstone, Dr. Clare Brooks &amp; Prof. Joop van der Schee <a href="mailto:j.a.vander.schee@vu.nl">j.a.vander.schee@vu.nl</a></td>
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<th>Research in the development and effects of curriculum in Geographical Education addressing global geopolitical and ideological conflicts: towards a harmonious world</th>
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<th>Towards a Harmonious Geographical Education community: aspects of research conducted in</th>
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<td>Prof. John Lidstone, Dr. Clare Brooks &amp; Prof. Joop van der Schee <a href="mailto:j.a.vander.schee@vu.nl">j.a.vander.schee@vu.nl</a></td>
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<td>Geographical Education not otherwise included above</td>
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| 10 | The roles of the IGU Commission on Geographical Education now and in the future | Prof. John Lidstone, Dr. Clare Brooks & Prof. Joop van der Schee [j.a.vander.schee@vu.nl](mailto:j.a.vander.schee@vu.nl) |

| **C12.13 Geography of Governance** |

| 1 | Environmental Governance – Spaces, Actors and Powers | Ján Buček [bucek@fns.uniba.sk](mailto:bucek@fns.uniba.sk)  
Shannon O'Lear [olear@ku.edu](mailto:olear@ku.edu) |
Current society is in growing extent dependent on good environmental governance and it does not matter in which spatial scale. This session should focus on various theoretical issues as well as case studies. It will debate, for example, decision-making on environmental issues, collaborative environmental planning, collective management of natural resources, environmental location conflicts, various mixtures of self-government and professional administration in sensitive and valuable environmental areas. We would like to deal with related ethical issues, conflicts of rights and interests, changing forms of regulation. Nevertheless, we also should debate failures in environmental governance and governance in environmentally damaged areas. |

| 2 | In Search For More Inclusive Governance | Ján Buček [bucek@fns.uniba.sk](mailto:bucek@fns.uniba.sk)  
Andrew Ryder [andrewrydernyc@gmail.com](mailto:andrewrydernyc@gmail.com) |
Governance is very flexible concept and has numerous forms of application. Nevertheless, there is still serious question, if already existing and evolving structures of governance respond to the needs of various groups of citizens. There are often doubts concerning their participation and role in managing public affairs. We intend to debate governance as concept providing access, voice and influence to those often overlooked. It concerns surprisingly large number of various communities. Among them are, for example, those without citizenship, asylum seekers, displaced, migrants, marginalized and vulnerable communities, indigenous communities, those socially and economically excluded and... |
| 3 | Citizen e-participation in Local Governance | Ján Buček  
bucek@fns.uniba.sk  
Carlos N. Silva  
    cs@campus.ul.pt | Technologies and especially enormous increase in “connectivity” are dramatically intervening into local governance approaches and practices. Nevertheless, we also should take into account that the spread and use of new information and communication technologies is not equally distributed around the world. It is important to understand nature and directions of these ICT applications - to which extent they are progressive, or if they can threat certain aspects of democratic governance. E-participation, e-government, e-planning,… are changing many processes and practices that developed earlier. We should focus of their positive and negative features. It is important to investigate if their application improves participation and serve as a tool in improvement of efficiency in public policies delivery, quality and transparency of governance. It is important to debate experiences, motivations, regulatory framework, as well real impact of e-participation on citizens’ local life. |
| 4 | Innovations in Public Sector, Public Administration and Public Services | Ján Buček  
bucek@fns.uniba.sk  
Tomasz Kaczmerek  
tomkac@amu.edu.pl | Public sector faces various transformations induced by turbulent times we are facing. The role of the public sector and state is reconsidered once again. The relations among public, private and non-profit sectors are even more complicated and more contradictory. Changing are central-local relations in many countries. Innovations are also well visible in various public policies formation and lead to public administration reforms. Many new developments we can observe in search for new and alternative public services delivery. We would like to cover also issues concerning local public and mixed companies use, privatization or re-municipalization of services delivery. Serious changes concern also system of public finance, taxation and property. There is still important field of inter-municipal co-operation, city region formation and their governance. It is important to know who are initiators and actors in introducing such innovations in public sector. |
### C12.14 Geography of the Global Information Society

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<tr>
<th>Session</th>
<th>Topic</th>
<th>Chair</th>
<th>Contact</th>
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<tbody>
<tr>
<td>1</td>
<td>Information Society and Culture 1</td>
<td>Mark Wilson</td>
<td><a href="mailto:wilsonmm@msu.edu">wilsonmm@msu.edu</a></td>
<td>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.</td>
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<td>2</td>
<td>Information Society and Culture 2</td>
<td>Mark Wilson</td>
<td><a href="mailto:wilsonmm@msu.edu">wilsonmm@msu.edu</a></td>
<td>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.</td>
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<td>3</td>
<td>Information Society and Quality of Life</td>
<td>Mark Wilson</td>
<td><a href="mailto:wilsonmm@msu.edu">wilsonmm@msu.edu</a></td>
<td>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.</td>
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<td>4</td>
<td>ICT and Media/Cultural Industries</td>
<td>Mark Wilson</td>
<td><a href="mailto:wilsonmm@msu.edu">wilsonmm@msu.edu</a></td>
<td>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 media providers, mobile media, animation, and the emergence of districts devoted to ICT culture and media.</td>
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<td>5</td>
<td>Green Economics and Smart Cities</td>
<td>Mark Wilson</td>
<td><a href="mailto:wilsonmm@msu.edu">wilsonmm@msu.edu</a></td>
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### C12.15 Geography of Tourism, Leisure, and Global Change

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<tr>
<td>1</td>
<td>Tourism and Empowerment Issues in Traditional Communities</td>
<td>Alan Lew</td>
<td><a href="mailto:Alan.lew@nau.edu">Alan.lew@nau.edu</a></td>
<td>Tourism development in rural and other traditional communities often presents a clash of cultural values between external globalization forces and internal local indigenous cultures. The financial resources of outside forces can overwhelm traditional societies, resulting in a loss of local empowerment and a loss of traditional livelihoods and cultural</td>
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ways. On the other hand, some traditional communities are able to maintain their indigenous values and ways of life, while still developing a tourism economy. The power relationships between external tourism commodification interests and internal indigenous value interests define how tourism will develop and whether a place will become a placeless and soul-less tourist attraction or a living cultural entity. This session explores the power struggles between globalization and localization within the context of rural and other traditional communities.

2 Tourism and Violence  
Anne-Marie d’Hautserre  
adhautes@waikato.ac.nz  
Tourism is depicted as an activity that requires a feeling of security. The absence of safety is said to deter visits because it reduces the attractivity of destinations. Yet, when studied critically, tourism, as a form of global capitalism, is actually embroiled in violence. Some of this violence is linked to issues of power, ownership and policies. There remains significant scope for geographical research to interrogate critically the range of relations and spaces where this violence occurs. This session is calling for papers that uncover the various modes and degrees of violence embedded in tourism such as, but not limited to:
- violent take over of land to create destinations (including for ecotourism)
- violent or oppressive practices imposed on 'hosts' to be more attractive to visitors
- violence linked to/in sex tourism, in its multiple forms
- violent forms of cultural tourism
- how/why violence is integral to tourism development (e.g. environmental degradation; forced development of infrastructure; invasion by visitors who insist on their right to mobility)
- natural catastrophes and tourism and how they are reported
- embodied violence (or risk of) in certain kinds of tourist performances (e.g. extreme adventure)
- biopiracy and/or misappropriation of Indigenous knowledges
- social displacement of locals by former tourists looking for cheaper retirement living
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<td>3</td>
<td>Tourism, Heritage and Globalization</td>
<td>Maria Gravari-Barbas</td>
<td>The relationship between heritage and tourism has been mainly analysed as a « defensive » one. Even if the economic contribution of tourism is considered necessary to insure the conservation of heritage sites and objects, tourism is suspected to be invasive, destructive and dangerous for the site’s “authenticity”. More recent works stress however the fact that tourism is not an “a posteriori phenomenon” which occurs once the heritagization process is already completed, but that it interferes, a priori, with heritagization. Tourism starts to be fully understood not as a heritage consumption phenomenon, but as a heritage production factor. These approaches reinterpret the heritage-tourism relationship and put a light not only on the role that tourism has played historically, (through the production of major tourism icons in the 19th and 20th c.) but also on the role it plays today in the context of globalization and of generalised mobilities. Though the dominant discourse of major heritage players such as UNESCO stresses the importance of local communities, heritage production (as a social and cultural phenomenon) does increasingly occurs through the action, initiative or prescription of transnational and/or globalised fluxes: transnational (tourism) elites, globalized capital, international ONGs, etc. This session aims at understanding the processes thought which tourism (seen as a system of places, stakeholders/actors, practices and imaginaries) becomes today a major “heritage producing machine”. The session welcomes both theoretical works and case studies on the following themes (the list is not exhaustive): - Transnational elites, tourism and heritage - Role of ONGs in producing/diffusing a globalised heritage paradigm - Post-colonial heritage and tourism</td>
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Maria.gravari-barbas@wanadoo.fr
### Urban Tourism and Tourism Urbanization

**Dieter K. Müller**  
dieter.muller@umu.se

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. The commission would welcome papers in this broad area. These may include but are not limited to those focusing on:

- Spatial patterns of urban tourism
- Urban tourism supplies
- Tourism and urban property
- Tourism as a driver for urbanization
- Urban tourism labour markets
- Cities as destinations
- Tourism and urban re-imaging
- Tourism and urban gentrification
- Tourism and urban transportation
- Urban tourism districts

### Lifestyle Mobility and the Local Community

**Honggang Xu**  
xuhongg@mail.sysu.edu.cn

Within the mobility spectrum, traditional tourists, migrants and retired residential tourists have received substantial research interests. The other mobility patterns on the other hand are less researched. With the improvement of transportation and arrival of the
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<th>Session</th>
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<td>6</td>
<td>Tourism and Carbon Emission</td>
<td>Yin Zhao</td>
<td>Mobility culture, the less researched mobility patterns are rising and have brought tremendous pressures on the place of origin and destination. Since the host-guest relationship is different from those tourists and migrants, this session attempts to address this issue further and raise the interests of more scholars. This session will discuss but not limited to the following issues: the new mobility patterns, the topology of tourists/migrants within the spectrum, the integration with the local communities governance and ect.</td>
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<td>7</td>
<td>Tourism Planning and Destination Sustainability</td>
<td>Jin-he Zhang</td>
<td>The session would like to focus but not limited on the following topics:</td>
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<td>Tourism planning evolution in China</td>
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<td>Tourism planning and destination sustainability</td>
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<td>Role of community in tourism planning</td>
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<td>China new norm and tourism planning</td>
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<td>Regional development and tourism planning</td>
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<td>Tourism planning and destination management</td>
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<td>8</td>
<td>Tourism, Environmental Change and Sustainability</td>
<td>Jarkko Saarinen, Edward Huijbens</td>
<td>Tourism and the environment have complex relationships that can vary from symbiosis to antagonistic relations. Both tourism and environment are also in a constant change necessitating a problematizing of our relationship with our surroundings in times of globalisation and global environmental change. There is a long tradition to study the impacts of tourism development (i.e. change) to environment in geography. During the past two decades global environmental change has emerged as a major topic in tourism development and management discussions, re-ordering the empirical and conceptual</td>
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Global environmental change affects the basis of the tourism system through numerous sets of ecological, social, cultural, economic and political transformations; but tourism has also become a major contributor to that change. All this has called for more sustainable and responsible ways to organize tourism-environment relations in the era of Anthropocene.

This session aims to discuss environmental change and its impacts on tourism, and the role of tourism in (global-local) environmental change. Ranging from “safe operating spaces” for tourism within defined planetary boundaries and potential environmental tipping points, to destination specific negotiations of “ecosystems services”, this session calls for papers that detail the role of tourism at these scales. These scalar considerations represent the way new scientific understanding alter humanity’s relationship to the past, present and future. Global sustainability can be brought to the fore at the grandest of scales where planetary boundaries and limits need to be framed in terms of intergenerational responsibilities, inequality and uncertainty. The focus of the session is thus not only on the ecological or physical environmental changes being wrought through tourism but also social, cultural, economic and political changes and their interrelationships with tourism mobilities, practices and development. The turn to the global/local scalar considerations in tourism development will find its truth in its usefulness in negotiating tourism futures. Future considerations open up questions of how to understand hospitality ethics. The uses of resources, their origin and co-option into value creation in tourism and the ethical decisions made by individuals in terms of offering or engaging in specific tourism activities need to be addressed. The challenges of more sustainable and responsible modes of tourism development are not only practical but involve ethical issues, thus, in sum the session will explore the connections among tourism, environment, change and ethics.

Nature-based Tourism in Asia is experiencing strong growth in tourism as well as economical. Growth in both areas
<table>
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<tr>
<th>10</th>
<th>Publishing Tourism Geographies</th>
<th>Dieter K. Müller</th>
<th><a href="mailto:Dieter.muller@umu.se">Dieter.muller@umu.se</a></th>
<th>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 invited 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.</th>
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<td>11</td>
<td>Resilience Approaches to Managing Change in Tourism Places</td>
<td>Alan Lew</td>
<td><a href="mailto:Alan.lew@nau.edu">Alan.lew@nau.edu</a></td>
<td>Social and environmental changes are normal processes that take place over time. However, how change takes place and what rate it happens it not always predictable. Many communities and enterprises struggle to adjust to changes in their development situation. For those in a tourism context, potential negative changes include a decline in infrastructure and facilities, a transition in market (customer) demands and interests, local economic transformation by outside financial investments, a loss of natural and cultural resources that attracted tourists due to poor development decisions, changing climatic conditions, and the impacts of natural disasters. The ultimate result of all of these is a decline in tourist arrivals. This session investigates how tourism communities plan for and</td>
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<td>12</td>
<td>DISCUSSION PANEL</td>
<td>“Tourism Geographies” in Asia: Contrasting issues, approaches and traditions</td>
<td>Alan Lew (<a href="mailto:Alan.lew@nau.edu">Alan.lew@nau.edu</a>) and Guosheng Han (<a href="mailto:hanguosheng@sdu.edu.cn">hanguosheng@sdu.edu.cn</a>)</td>
<td>DISCUSSION PANEL. Tourism education has strong foundations through the Asia-Pacific region. That foundation, however, varies considerably among different countries in Asia, in terms of where tourism is situated in universities, what the focus on tourism research is, how tourism research relates to government policy and consultancy projects, and how tourism country-based education relates to the international tourism academy. This session explores these differences, with a short presentation by scholars from different countries, followed by a general discussion. If suitable, a summary of the session will be published in the journal <em>Tourism Geographies</em>.</td>
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<td>13</td>
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<td>Tourism and Economic Geography</td>
<td>Dieter K. Müller (<a href="mailto:Dieter.muller@umu.se">Dieter.muller@umu.se</a>)</td>
<td>Tourism plays an important role for the development of the economy and labor markets both in rural and urban areas. Within tourism research, however, economic dimensions have recently received limited attention and they are often examined independently of and parallel to research approaches known from economic geography. The latter have recently used theories and concepts such as innovation systems, relational economic geographies, path dependence, learning regions and clusters for understanding and explanation of regional economic development. However, these approaches have not been applied frequently tourism geography. The aim of this session is therefore to bring together both areas of research and to encourage on the one hand a theoretical discussion of the advantages and disadvantages of these approaches within tourism research, on the other hand, the empirical examination of the validity of these approaches in the tourism sector. Both empirical and theoretical contributions are welcomed.</td>
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<td>14</td>
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<td>Tourism and Environment</td>
<td>Prof Sanette Ferreira (<a href="mailto:slaf@sun.ac.za">slaf@sun.ac.za</a>)</td>
<td>Topic: Challenges in the 21st century for natural areas tourism. Tourism is seen to provide an incentive to conserve natural areas. Tourists can bring economic benefits to a region and protected and natural areas can generate significant...</td>
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income on a sustainable basis, resulting in additional investment by governments for environmental management and conservation. For some tourists the natural environment provides the primary objective for their travel to a specific destination. Nature tourism has increased from about 2% of all tourism in the late 1980s to about 20% today (Buckley, 2009). With this increase nature tourism is developing in a form of ‘mass tourism’. Weaver (2012) attributes this change to natural resource scarcity, the development of green technology, and awareness of climate change. Some of the highly valued ecosystems for tourism and leisure activities are fragile in nature and have to be managed carefully to ensure their availability for the future generations to come. Island ecosystems (seabird breeding islands, island wildlife), coral reef ecosystems, tropical rainforests and African Savannah are drawing large numbers of tourists resulting in direct and indirect environmental impacts. The dramatic increase in visitor numbers to natural areas makes visitor monitoring and creative management of visitors of paramount importance. Some of the visitor’s impacts must also be seen in the context of wider environmental issues and cumulative impacts from the areas adjacent to protected areas (landscape matrix, river systems in the matrix and the agricultural matrix); Urban encroachment; the need for land; inadequate security for protected areas; etc.

This session invites scholars working and researching in protected areas to present papers on:

- Managing mass tourism at coral reefs (or any other sensitive ecosystem)
- Wider environmental issues threatening a specific national park or protected area
- Creative visitor planning in crowded situations in national parks
- Conserving and protecting “natural area experiences”
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<tr>
<th>Session</th>
<th>Title</th>
<th>Authors</th>
<th>Abstract</th>
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| 15      | ICT and Modern Technology in Tourism       | Jie Zhang, Zi LU         | Modern tourism is highly dependent on the use of technology and not least ICT. Technology is used by tourists before, during and after the trip, and even the supply side of the tourism industry is utilizing technology for providing information to the tourists, but also for analyzing spatial information of tourism mobility and demand. Moreover, modern mobile technologies such as google glasses are maybe revolutionizing tourism even more. This session invites therefore papers that address the interrelationship of tourism and ICT and other modern mobilities. This session covers fields as follows:  
- ICT and regional tourism  
- GIS and tourism analysis  
- Mobile internet and tourism operation  
- Big data and tourism destination management  
- Big data and tourism product distribution  
- Other modern technologies in regional tourism |
| 16      | Tourism and Mobility                       | Tim Coles                | Tourism and mobility have been a long-standing concern for a wide range of scholars, including geographers. However, this subject area is marked by a paradox: the more the academic record grows, the more we still have to understand. Patterns of tourism and the connections between tourism and other forms of mobility are constantly evolving in the process reflecting new conditions and contexts at a range of spatial scales. This means that, in addition to a number of exciting new developments for instance around technology, transport and tourism, established themes like second home ownership and cross-border mobility also need constant revisiting and updating. The commission would welcome offers of papers in this broad area on both traditional and innovative topics. |
These may include but are not limited to those focusing on:
- Critical issues in contemporary tourism mobilities
- Relative freedom to travel, impediments to mobility, and tourism immobilities.
- Cross-border mobilities and border crossings.
- The effects of visas, regulation and governance on travel, tourism and mobility
- Business tourism and mobilities.
- Domestic inter-regional and intra-regional patterns of tourism mobilities.
- Tourism mobilities across the age range or among different demographic segments
- Tourism and new modes of transportation
- Tourism, transport systems and infrastructure
- Smart tourism and the role of social media in mediating travel, tourism and mobility

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<th>Session</th>
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<tr>
<td>17</td>
<td>Is Tourism a Help or Hindrance to Global Awareness and Understanding?</td>
<td>Dieter K. Müller, Alan Lew</td>
<td>This panel session is organized to highlight the International Year of Global Understanding (IYGU) by addressing the question in what ways tourism is an asset or a hindrance for global understanding. Obviously the growth of tourism creates various types of impacts on different geographical scales. The aim of this session is thus to address some of these issues and to discuss the potential of tourism as an agent of change. Since this session is organized as a panel session only invited contributions are accepted.</td>
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<tr>
<td>C12.16 Geopark</td>
<td>Geoheritage</td>
<td>Dongying Wei</td>
<td>The topics are concerned with the management, policies, education, tourism, interpretation, economics, protection and sustainable development of global geoheritage. Here, geoheritage includes geoparks, national parks, protected areas, World Heritage sites, and other globally significant sites recognized for their geologic and geographical value. Covering methods and practice of geoheritage studies, the session explores the ways of</td>
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conservation and sustainable development of geoheritage. It includes:

1. Communicate the role of Geoheritage as tools of education, recreation and nature conservation;
2. Further develop the concept of sustainability as applied to Geoheritage;
3. Communicate the importance of understanding a broad range of processes that affect the sustainable development of Geoheritage, including the natural environment, political, and socio-economic processes.

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<tr>
<th>C12.17 Global Change and Human Mobility</th>
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<tr>
<td><strong>1</strong> Moving World, Moving Actors: Global Changes and Personal Challenges</td>
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<tr>
<td>Josefina Domínguez-Mujica</td>
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<tr>
<td><a href="mailto:josefina.dominguezmujica@ulpgc.es">josefina.dominguezmujica@ulpgc.es</a></td>
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<tr>
<td>Barbara Stanisci</td>
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<tr>
<td><a href="mailto:barbara.stanisci@uniroma1.it">barbara.stanisci@uniroma1.it</a></td>
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<td>Human mobility is one of the phenomena that has generated a significant interest among social researchers throughout history, considering that movements are as old as the history of humankind. The evolution of civilizations has been linked to the migratory processes and these have been analysed since the origins of the geographical and historical academic research. But, as a manifestation of some of the world’s key geographical, political, economic, societal and cultural issues, human mobility has received much more attention over the past decade thanks to its crucial role intertwining locations and societies, and connecting local and global processes. Traditional explanations on the consequences of development and transport infrastructure in migration flows and the role of states and policies are not adequate anymore. Several factors encompassing recent global changes must be also considered, including (i) geopolitics – the balances, tensions, conflicts and reorganisation of territories and its borders; (ii) economics - the processes of restructuring in a post-fordist stage and effects of the current crisis; (iii) social structures – the role of mobile women, religious conflicts, emergence of social networks, new people’s aspirations and consolidation of new lifestyles; (iv) cultural landscape – the importance of human mobility in modelling new identities; and (v) demographic features – longer life expectancy, the young people capabilities in a mobile scenario, human mobility in the process of rejuvenation versus</td>
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The role of new media, of new forms and tools of information and communication has become crucial in shaping and understanding human mobility, in its components of tourism and migration. Global communication, indeed, in its multiple facets, has a strong influence on the image and representation of places. More and more abundant and easily accessible information, allow the creation of a very precise and detailed idea of the several opportunities (or lack of opportunities), in terms of work and (or) leisure, offered by different places. Communication through virtual formal and informal networks – including social networks – favour the generation (and retrieval) of a plurality of information – even customized – created by the wish of a multitude of persons to share their own knowledge and experience of places. This is particularly true among young persons. Generation and circulation of information through such channels has a strong incidence in giving rise to and addressing flows of persons moving in search of tourism destinations or job opportunities. At the same time, these new virtual channels contribute to keep active social relations between people on the move and their families, friends and acquaintances, favouring new bridges between places: on the one hand, the places where they are from and, on the other, the destinations. Therefore, these media allow the building of new connexion processes, maintaining mobile people anchored to places while in closer contact with the locations of origin, reinforcing transnational identities. In the meantime, a focused and detailed analysis of contents of new media, allows capturing information concerning tourism and migratory flows, tourism and migratory
| 3 | Development Safeguards, Forced Displacement and Resettlement - Inside China and Going Out | Susanna Price  
Susanna.Price@anu.edu.au  
Brooke Wilmsen  
b.wilmsen@latrobe.edu.au | Social safeguards (1) involving Development-Forced Displacement and Resettlement (DFDR) are well-developed within China. In the reservoir sector, for example, DFDR policies have evolved from compensation-based approaches to a developmental approach that prioritises benefit sharing and the longer-term regional development of project-affected areas. Despite some recent attempts to weaken development bank safeguards, China's movement broadly complements the trajectory of DFDR policy and praxis of large international financial institutions. Moreover, it is supported by the resettlement theories of foremost social science scholars (see for example, Scudder, Cernea and Downing). As China is now at the forefront of natural resource-based investment in many developing regions, the way it conceives its role within the new aid and investment architecture will determine the fate of millions of people displaced by these investments. This session seeks to understand what China has learnt from its domestic practice of social safeguards, both as regards DFDR and indigenous ethnic minorities, and how this influences its social responsibilities abroad. Whilst the primary focus is on China and its investments overseas, papers discussing safeguard policy application or DFDR in other contexts will be considered.  
(1) Social safeguards generally include policies and procedures on involuntary resettlement and on indigenous peoples. |
| 4 | Youth Mobility. An Emerging Phenomenon at the Global Scale | Armando Montanari  
armando.montanari@uniroma1.it | Youth mobility is one of the emerging phenomenon at the global scale, involving countries in different stages of economic development and with different political systems. In some areas of the world and for some individuals youth mobility is a choice, it is wished and, in |
some cases – in the EU territory, for instance - favoured through dedicated policies. In some other areas and individuals, it is unwished and it is the unavoidable consequence of unsustainable negative spatial – economic and political – conditions. Youth mobility is often linked to education. Youth mobility poses a two-fold question: what are the consequences for the individuals and what are the consequences for the regions, both of origin and destination. It also poses a question in terms of policies: how to guarantee the regional equilibrium (for the regions of origin) and the social equilibrium (for the regions of destination) while favouring the youth mobility as a way for personal development.

This session welcomes researches concerning international and internal youth mobility; of students, of high-skilled and low-skilled young workers; focusing on individuals and regions.

C12.18 Hazard and Risk

1 Hazard and Risk

Shigeko Haruyama
haruyama@bio.mie-u.ac.jp

Enrique Novoa-Jerez
jnovoa@userena.cl

The number of disaster reports show that the human-induced change in environmental conditions is usually similar or even exceeds the climatic-driven year-by-year variability in the activity and in dimensions of various natural disasters. Anthropogenic change, such as, land form, geomorphological features, water balance, vegetation features, etc., occurring in short periods of time, can change the locations and characteristics of floods, storm surges, liquefaction and earthquake, landslides, debris flows, snow avalanches, etc. Additionally, appearance of new industrial construction and related migration of population change the risk values in each economic level. Differently to natural environmental 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 in GIS utilities, and requires development of other techniques and remote sensing technology. Contributions related to understanding of the possible consequences of anthropogenic changes of natural environment on the dynamics of natural hazards and the ways of risk assessment under anthropogenic pressure are invited. Also resilience studies
for natural disaster, disaster sciences and risk communication studies are well come to presentation.

|   | Participation, Geo-Technology and Risk Governance | Sue-Ching Jou  <jouchen@ntu.edu.tw> | This session would like to call for papers on discussing issues and perspectives of the role of public participation on the hazards and risk governance. It tries to draw particular attention to the application or support of open data, crowdsourcing data, volunteered geographic information (VGI) and geo-technology, which might help the efficacy and relevancy of public participation on risk management or governance in hazard prone areas. Geographical studies or experiences of professional practices along the line of participatory governance, citizen science, sustainability sciences or geoinformation science will be very welcomed to submit papers to enhance and to broaden the scholarly discussion of related issues on the session topic. |

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<th>C12.19 Health and Environment</th>
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| 1 | Environmental Change and Health | Wuyi Wang  <wangwy@igsnrr.ac.cn>  
Min Liu  <mliu@geo.ecnu.edu.cn> |
| 2 | Health and Health Care | Wuyi Wang  <wangwy@igsnrr.ac.cn>  
Min Liu  <mliu@geo.ecnu.edu.cn> |
| 3 | Health and GIS | Wuyi Wang  <wangwy@igsnrr.ac.cn>  
Min Liu |
Although islands occupy just 1.86% of the Earth’s surface area, there are some 550 million people living on islands—around 10% of the world’s total population; and 13.1% (106 out of 812) of UNESCO’s World Heritage sites are on islands (Baldacchino 2006). As bounded arenas, islands have long facilitated examination of structural forces and mechanisms of interaction and change relevant to vastly broader contexts than the unique places they are. Islands at the same time can act as laboratories of cultural, social, economic and environmental experiments including in creating conditions for sustainable development, and their diversity provides a wealth of experience from which to learn. With the emerging global research platform ‘Future Earth’ that aims to provide knowledge and support to accelerate transformations to a sustainable world, islands could again play important roles for understanding transformation processes and options, assessing how these relate to human values, emerging technologies and economic development pathways, and evaluating strategies for governing and managing the global environment across sectors and scales. The aim of this session is to provide a forum for island researchers addressing issues of islands and future earth. The topics can include but are not limited to:
| C12.23 Karst |
|-----------------|---------------------------------|
| **1. Karst Landscapes: Tourism and Conservation** | Co-design and co-production of knowledge systems for future earth |
| | New geographical imaginations on islands |
| | Island indigenous/local knowledge for future environmental governance |
| | Climate change and island adaptive governance |
| | Global changes and island resilience |
| | Island-Ocean interactions |
| | Island alternative cultural economies |
| | Island political geography |
| | Island responsible tourism |
| | Island innovations and sustainability |
| | Island futures, and more. |
| | The session(s) welcome papers reporting on current research into the relevant topics of islands as mentioned above and island futures. |

|  | Elena Trofimova  | Jianhua Cao  |
|  | e.trofimova1@gmail.com  | jhcao@karst.edu.cn  |

Karst landscapes provide enormous possibilities for tourism particularly that focused on appreciation and exploration of the natural landscape. Unusual surface landforms, such as dry valleys, sinkholes, springs, residual hills and pinnacles, are supplemented by unique underground opportunities provided by caves, which hold unique attractions such as underground rivers, “bottomless” lakes, dramatic decorations and distinctive organisms, and which represent singular tourism foci. Worldwide, there are more than 1000 commercially exploited caves, many with extensive lighting and other tourist infrastructure, such as paths, bridges, stairs and viewpoints. “Wild” tourism is also represented by recreational cavers. Tourism, particularly involving large numbers of visitors, causes considerable disturbance in karst environments, both at and below the surface. Provision of tourism infrastructure poses management challenges, and visitor activities may damage the physical fabric and disturb biotic communities. Tourist cave
development may enlarge or obstruct cave entrances and passages, may alter hydrological conditions and may change cave atmospheres, potentially threatening biota and damaging artifacts such as cave paintings. The session will consider present and future approaches to the management and reconciliation of tourism and conservation in karst landscapes, with particular attention to karst areas which are protected at local through international levels.

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<th>C12.24 Land Degradation and Desertification</th>
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| 1  | Land Degradation and Environmental Change | Paul Hudson  
    p.f.hudson@luc.leidenuniv.nl  
    Owen Graham  
    Owen.comland@gmail.com | In an era of global environmental change, land degradation and desertification are vital topics with relevance to scientists, policy makers, and society. The IGU Commission on Land Degradation and Desertification welcomes abstracts on a range of topics related to land degradation, desertification, soil erosion, climate change, and environmental management and policy. We seek papers that examine land degradation within a variety of subfields that utilize a diverse range of approaches (field, modelling, historic, process, etc...). Depending on the range of paper topics the presentations will be grouped into more specific themes. The format of presentation is a standard 20 minute talk or poster. Participants should register for "theme 24" via the official web site for the congress. Please send Paul Hudson (p.f.hudson@luc.leidenuniv.nl) or Owen Graham (owen.comland@gmail.com), Secretary of COMLAND, a note and copy of your abstract to inform of your interest in participating in the official organized COMLAND sessions. All participants will need to submit their abstract and registration according to IGU guidelines via the official IGU web site. |

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<th>C12.26 Land Use and Land Cover Change</th>
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| 1  | Comparative Study on Land Cover and Land Use Change (LCLUC) and Their Driving Forces in Different Regions | Ivan Bičík  
    ivan.bicik@natur.cuni.cz | • To coordinate the comparative studies of LC/LU and their driving forces in different regions. Papers may show map presentations of LC/LU changes in different parts of the world; Possibility to prepare chapter into further Volumes of IGU/LUCC Atlases |
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| 2 | Evaluation Of Dominant Trends of Human Impact On Land Use/Land Cover (LU/LC) Changes as in Multi-Levles (/State as Regional and Local Levels) | Ivan Bičík      | • Evaluation of dominant trends of human impact on land use/land cover (LU/LC) changes as in state as regional and local levels;  
  • Presentations from different parts of the world may help to detect the relevant human impacts on LU/LC changes |
| 3 | Policies and Economic Conditions Impact on Urban, Agricultural and Forestry Landscapes Change | Ivan Bičík      | • In the whole world LU/LC is strongly affected by political and economic conditions with particularly visible outcomes in urban, agricultural and forestry landscapes |
| 4 | Land Use/Land Cover (LU/LC) Change Mapping in Multi-Scales: Data and Methodology | Ivan Bičík      | • Map presentation of LU/LC changes. The effort of LU/LC change mapping in different regions of the world and different scales has been also documented by atlases of land use and land cover changes published under the umbrella of the IGU/ LUCC;  
  • To stimulate the production and the use of LC/LU information and methodology acquired from datasets with temporal resolution;  
  • The data derived from satellite images provide information about LU/LC and its changes for substantial parts of the world. Availability of these data may contribute to new approaches to the assessment of the landscape. Presentation may provide an overview of examples with used databases obtained by application of satellite images |
| 5 | Land Cover/Land Use Databases and Data Sharing | Ivan Bičík      | • Application of LC/LU databases (e.g. CORINE Land Cover – CLC, National Land Cover Dataset – NLCD, Urban Atlas – UA, etc.) derived of satellite images for identification, analysis and assessment of landscape changes;  
  • The data derived from satellite images provide information about LU/LC and its changes for substantial parts of the world. Availability of these data may contribute to new approaches to the assessment of the landscape, for instance in the context of |
environmental and economic accounting, diversity, modelling of its properties, etc. Presentation may provide an overview of examples with used databases obtained by application of satellite images

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<th>C12.27 Latin American Studies</th>
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| 1 | a) Latin American Geographical thought.  ) Environmental problems, climate change and disaster risk management in Latin America.  
c) Geography of Latin American cities.  
d) Cultural Geography: Heritage, tourism and Latin American history.  
e) Public policy and land management in Latin America |
| | Juan Manuel Delgado  
juanmanueldelgado@gmail.com  
juan.delgado@ugiperu.org  
Javier Nuñez Villalba  
jnunezvillalba@gmail.com |

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<th>C12.28 Local and Regional Development</th>
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| | Michael Sofer  
Soferm1@biu.ac.il |
| | The aims of, attitudes towards, and procedures adopted for, local development may differ between regions and countries. In some places the local development theme is closely related to rural and non-metropolitan development. In other parts of the world the focus ranges from the establishment and development of new towns, to spatial patterns of |
entrepreneurship, or the evolution of new cores of sophisticated high-tech activities. We are also interested in how these themes are likely to evolve in the emerging climates of rapid global economic integration and high-powered technological innovation, both of which are likely to completely re-write regional and national space economies. The Commission’s aim is to amalgamate such debates under one umbrella. The forthcoming conference is a prime opportunity to debate these issues. The topics are:

- Strategies for local and regional development
- Reorganization of the space economy within or between nations – now and in the future in what has been termed the second machine age
- The agglomeration and de-agglomeration of economic activities
- Business innovation genomes and the role of innovation and entrepreneurship in local development processes
- The pattern of local development in the rural space
- The role of both institutions and agencies in developing and reshaping the localities and the regions
- Projects and planning in developed and less developed regions
- Restructuring peripheral economies in the Second Machine Age: local adaptation to a looming avalanche of destructive technologies.

C12.29 Marginalization, Globalization, and Regional and Local Responses

| 1 | Long Forgotten Backward Spaces in the Focus of Global Economy | Stanko Pelc  
Stanko.pelc@pef.upr.si  
Steve Déry  
Steve.Dery@ggr.ulaval.ca | By “long forgotten backward space” we mean any kind of area or region that had no importance for national economy for a very long time. This may be a remote highland area that had no resources to attract economic development and therefore economically, culturally and politically lagged behind the central parts of the country that it belongs. It can also be an area along a strict unpermeable border or an area that due to economic change lost the main (usually the only) economic potential and fall into economic decay. In short we mean areas and regions marginal in relation to the centre from economic, social |
and political point of view. The session intends to attract papers about this kind of places that attracted at least some kind of attention from national or global economic and national political players. For example in Asia, national policies are increasingly using tourism as a tool to integrate remote spaces and marginal social groups, often inhabiting peripheral highlands. Reducing poverty, stopping ecological degradation, and limiting autonomist movements, are all adding up as a triple concern which compels governments to link marginal areas to national centres through tourism development.

EU on the other hand has a lot of mechanisms to foster the development of its most remote and underdeveloped areas, but beside the success stories there are still many areas that are desperately trying to attract sources for the development with limited success.

The rest of the world has many similar as well as many different stories and we seek to attract contributors from different areas of the world to get a better knowledge about that which economic activities are most frequently involved when these kind of spaces are involved and what kind of transformation is brought by new economic activity (what spatial and social changes, what environmental impacts etc.)

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<th>C12.30 Mediterranean Basin</th>
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<td>1</td>
<td>The Mediterranean Within Global Contexts</td>
<td>Maria Paradiso <a href="mailto:paradiso@unisannio.it">paradiso@unisannio.it</a></td>
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regional challenges will be examined from a critical reflexive perspective. The sessions are 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; conflicts and harmony;
- diversity and inclusion, interethinic, 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.);
- global change in particular climate change and impacts on societies.
- wellbeing and prosperity and, simultaneously, locations and dynamics of forced mobilities, environmental degradation, and economic-political ethnical ruptures; refugees camps, mobilities and spatialities
- Euromed Changing relationships.
- Changing and networked geographies of the Gulf countries.

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 ethnical 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.

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<th>C12.31 Modeling Geographical Systems</th>
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|   | Yee Leung  
|   | yeleung@cuhk.edu.hk  
|   | Zheng Wang  
|   | wangzheng@casipm.ac.cn  |
|   | The purpose of this session is to explore the theory, modelling and data analysis in environmental, social and economic issues with significant decision implications of regional and global scales. This session will focus on the following aspects:  
|   | • Mathematical models and theoretical geography  
|   | • Spatial data mining, knowledge discovery and intelligent geocomputation  
|   | • Coupling of human and natural systems, and integrated assessment models (IAM)  
|   | • Spatial Analysis and spatial decision support systems  
|   | • Geographic computational platforms and software  
|   | • Agent-based Modelling and Complex System Simulation |

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<tr>
<th>C12.32 Mountain Response to Global Change</th>
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|   | Teiji Watanabe  
|   | teiwata@mac.com  
|   | Hermann Kreutzmann  
|   | h.kreutzmann@fu-berlin.de  |
|   | Mountain communities in High Asia have been envisaged as depending on the ecological resources provided by the habitat conditions of the Tien Shan, Alai, Pamirs, Hindukush, Karakoram, and Himalayas. Combined high mountain agriculture and pastoral practices such as nomadism – although diversified and modified during the 20th century – have been the points of departure for understanding change. In the age of globalization adaptation strategies need to be analyzed from wider perspectives: border delineation as a consequence of colonial intervention, internal conflicts related to minority policies, political approaches to development and modernization, migration and mobility, tourism and responses to climate change induced hazards are challenges that need to be integrated into holistic approaches for understanding mountain communities in search for their position in a globalized world. The organizers invite participants contributing to |
conceptual approaches and providing empirical evidence from case studies located in High Asia that combine the local, regional and global spheres in positioning various communities.

2 Methodological Development Of Monitoring Studies On Mountain Trial Degradation Under Accelerating Recreational Use

Teiji Watanabe
teiwata@mac.com

Aleksandra Tomczyk
alto@amu.edu.pl

Mountains can provide sustainable recreational opportunities, but they are always facing negative impacts caused by visitors. Trail degradation due to recreational use has attracted scientists and protected-area managers. As a result, a variety of monitoring methods have been developed by now. Conventional approaches include repeat measurement of cross-sectional profiles of the trail surface, which has been widely used to monitor trail degradation, because of its easy implementation. Recent advances in technology enables the development of new methodological approaches, allowing for understanding not only two-dimensional changes, but also to study volumetric transformations. These approaches include 3D reconstruction of the trail surface based on (1) unmanned aerial vehicle (UAV) or ground-based photographs, which can be subsequently processed through the structure-from-motion (SfM) process to generate detailed digital elevation models, and (2) terrestrial laser scanning (TLS). The development of the methodology would lead to better trail management in mountain regions of the world. This session will present the state-of-the-art methodologies of monitoring trail degradation in the rapidly changing mountains under different environments, and discuss their application, which would be beneficial to managers of mountain areas of high conservation value.

C12.33 Political Geography

1 Sociocultural Encounters in Geography: Borders, Borderlands, Grassroots Non-State Actors And The Southern African Integration Project

Christopher Changwe Nshimbi
csnzed@gmail.com

Inocent Moyo
minnox@yahoo.com

The geographical and socio-economic landscapes of the contiguous border areas in Southern African suggest de facto processes of regional integration. The historical, socio-economic and cultural interactions, enhanced by geography, that characterise these borderlands form sub-regions that not only defy border controls but also achieve alternative processes of regional integration. This has not received much scholarly attention and recognition from policy makers. Therefore, this session takes, as its point of
departure, the debates around borders, borderlands, sub- and regional integration and aims to interrogate the place of local, grassroots non-State actors and their rich historical, socioeconomic and cultural interactions facilitated by geographic proximity in Southern Africa’s borderlands, in the SADC’s regional integration project. Hence the questions; do “spaces of flows” replace “spaces of places” in Southern Africa’s borderlands? Are economic regions outside formal state organisation likely to emerge in these contiguous border areas? Contrary to top down approaches to regional integration, the session will explore alternative approaches to regional integration in the SADC and advance perspectives that question current thinking and conceptualization of regional integration in the Southern African region and in Africa, in general. Several questions shall, therefore, be explored such as: how does the role of grassroots non-State actors in the Southern African region compare with other parts of the world?

| 2 | The Eurasian Pacific – geopolitical moments and unfulfilled promise | Sergei Golunov
sergei.golunov@gmail.com
Akihiro Iwashita
iwas@slav.hokudai.ac.jp | In what appears to be a time long past, the early part of the current decade seemed to herald the possibility of an epoch-making geopolitical transformation. The United States proclaimed a new “pivot to Asia”, most explicitly in Hilary Clinton’s October 2011 Foreign Policy article on “America’s Pacific Century”. Meanwhile, the Russian Federation’s hosting of the APEC Summit in Vladivostok in 2012 was held to mark a new era of engagement with the Pacific, putting flesh on longstanding ‘Eurasianist’ bones. The continuing rise of China, frequently perceived as the prime motor behind American engagement in the region, was sparking ever more intense reactions among neighboring powers, while practically every state in the region was involved in revanchist territorial claims with one or more of its neighbors. Fast forward five years, however, and the attention of the world has once again turned to the Middle East and Europe’s own borderlands. How has this marginalization of such “a key driver of global politics” been felt within the region? This panel seeks to examine the perceptions held by the states of this region of their relations with one another within a global context within which such relations have been
significantly ‘downgraded’. The term Eurasian Pacific is adopted to refer to those states forming the East Asian end of the Eurasian continent, and the goal here is to discuss these relations in the context of the much-touted focus on the ‘Asia-Pacific’ region. What material and discursive effects were engendered by the proclamation of a ‘pivot’ and to what extent have they been muted or transformed by the subsequent downgrading of the region over the time? In so doing, it shall seek to understand the relations between the geographies of the individual states themselves and their mutual imbrication with aspects of the globalized ‘geo-graphed’ world within which we all reside, one which can only be of service in comprehending the often fraught relations among the states of the region.

| 3 | Scales of politics and policies in Latin American borders | Adriana Dorfman adriana.dorfman@ufrgs.br
Alejandro Benedetti alejandro.benedetti@conicet.gov.ar alejandro.benedetti@outlook.com |
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<td>States are not alone in the management of territorialities at their borders. Traditional actors go along with other actors (local and regional governments, profit and non-profit economic organizations, multinational and supranational organizations, and civil organizations) in a context of neoliberal paradiplomacies and social movements. They are engaged in negotiation at distinct scales in processes at borderlands, even though nationalism remains as a resource to be instrumentalized and limits still act as spatial discontinuity. Conflicts generated by the uses and abuses of natural resources and commons reconceptualize frontiers. How can we understand and theorize such processes at Latin America?</td>
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| 4 | Autochthony, Allochthony and Belonging: Migration, Xenophobia and Social Cohesion in the Southern African Region | Innocent Moyo minnoxa@yahoo.com
Christopher Changwe Nshimbi csnzed@gmail.com; christopher.nshimbi@up.ac.za |
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<td>Migration is not new in the Southern African region. Its long history dates back to the late 19th century into the colonial, post-independence and post-Cold War eras, and into the late 1980s and early 1990s when most economies in Southern Africa underwent neoliberal economic reforms and structural adjustments. The economic reforms coincided with the end of apartheid in South Africa. South Africa’s emergence as the economic hub of Southern Africa coupled with the long history of migration across Southern Africa makes South Africa a destination of choice for various categories of migrants including labour, informal traders, medical, education and training, cultural and kinship relations, etc. The</td>
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The post-reform and post-apartheid period has thus witnessed increased immigration into South Africa from Southern and other parts of Africa. The increase in numbers of immigrants in South Africa has created tensions and hostilities directed towards immigrants. The African immigrants in South Africa have thus been constructed as the problematic new comers who take away jobs from South Africans and strain the national socioeconomic infrastructure, pressuring government and limiting its ability to provide essential socioeconomic services and employment to its citizens. This social topography, which has elevated South African citizens and led to the relegation of immigrants to the subaltern, with calls for their evisceration and interpellation, partly explains the so-called xenophobia and discourse around xenophobic attacks currently prevalent in South Africa since the early 2000s. While foreigners and agencies such as the United Nations High Commission for Refugees (UNHCR) brand targeted attacks on foreigners and their businesses by South African citizens as xenophobia, South African authorities rather brand such attacks as acts of criminality, or even 'Afrophobia', and not xenophobic. Against this background, this session proposes to (a) gain a proper understanding and conceptualisation of the notion xenophobia and (b) deliberate ways in which social cohesion can be promoted to encourage harmony between foreigners and South African citizens. The dearth of scholarly engagement in academia and policy attention in government circles around regional migration, xenophobia, local integration and social cohesion in Southern Africa makes engaging in this discourse imperative.

In recent years, geographers have contributed to the understanding of spaces of surveillance, violence and control (Moran, Pallot, & Piacentini, 2011; Philo, 2012) and have located such geographical inquiries in camps (Felder, Minca & Ong, 2014; Minca, 2015), prisons (Minca & Ong, 2015) and inmate transportation (Moran, Piacentini, & Pallot, 2012). This session first seeks to rethink the role of carceral geography within the context of discourses endorsing and promoting reconciliation and harmony in society. Specifically,
we ask the question of whether carceral spaces and the notions and practices of control, discipline and punishment have a place in what may be termed ‘harmonious societies’ historically, at present and in the future. While the notion of ‘harmonious societies’ may have found currency and usage in discourses articulated by politicians, its tendencies towards non-antagonistic consensus presents critical questions for carceral spatialities. Should a harmonious society preserve and remember its past spaces of discipline and violence? What role do current and future carceral spaces play in a harmonious society (if at all)? Are control, discipline and violence key functions for a harmonious society? Beyond such specific intellectual provocations, we are also keen to on works that take stock of, document and chart the terrain of carceral geography inquiries and the following sub-themes reflect some key areas of our concerns:

**Reconceptualising the ’carceral’ and ’carceral spaces’:**
- The biopolitics of detention;
- Technologies of incarceration;
- Spaces of violence, custody and care;
- Control, surveillance and society;
- Prisons, asylums, camps and quasi-carceral spatialities.

**’Carceral spaces’ after the prison:**
- Post-carceral politics of memory, forgetting and representation;
- Post-carceral geographies of tourism;
- Post-carceral heritage;

The power of place: cultural histories of past spatialities of violence.

| 6 | Politics of Environment and People | Anjana Mathur Jagmohan  
[dr.anjageog@gmail.com](mailto:dr.anjageog@gmail.com) | The session aims to amass the studies related to politicization of resources, environment, pollution, ‘Green Judgment’ and ‘Green Laws’, depredation of environment in the garb of development, matters related to Environmental as well as Developmental |
Refugees, People’s Right to safe Livelihood, Right to Information, Right to Resources, Right to Health and Right to Education, Right to Equality and contravention of these rights; Indigenous people’s rights, corporatization of national resources, People’s agendas, Political ecology, Wars against subjugation, exploitation, injustice and discrimination, violence and the war itself. Through this session, it shall become clear how politics is affecting, upsetting and altering the nature, development, natural processes and people. The session shall also give future directions, subterfuge and political out-maneuvers fora clean and clear, politics-free conservation and development of environment and people.

| 7 | The Transformation of Political Space and Prospects for New Governance in the Contemporary Phase of Globalization | Takashi Yamazaki | yamataka@lit.osaka-cu.ac.jp | Socio-economic globalization that accelerated the flows of capital, information, and labor at the end of the 20th century has intensified inter-national/regional/urban competitions and enlarged socio-economic disparities in this century in parallel with the promotion of neo-liberal structural reforms in many countries of the world. Politically the coherence of state sovereignty, nation, and territory has been disintegrated, and the reconstruction of inter-regional relations across borders and other political boundaries has been under way. Such transformation and reconstruction of global and local political spaces (loosening, hardening, merging, overwrapping, etc.) are accompanied by political issues such as asymmetrical wars, ethnic/religious conflicts, territorial disputes, and trans-border environmental problems. On the other hand, the formation of new political agents (actors) have been recognized such as SNS promoting the deterritorialization of democratization movements, NGO coping with globalizing environmental problems, human rights organizations reconstructing the concept of citizenship through the issues of immigrants and refugees, border municipalities trying to clear the way for trans-border exchange. Thus the transformation of political space promoted by globalization is posing new threats and opportunities to human lives, societies, and environments, which indicates that globalization has entered a new phase. |
Based on the above-mentioned understanding, this session explores the multi-scalar transformation and reconstruction of political space in theory and practice and discusses the new political space and form of governance that political agents create in the face of various problems brought about by the contemporary structural shifts. Possible paper topics may include but are not limited to:

* The re-theorization of border and territory in the contemporary phase of globalization
* The methodological reexamination of political geography from multi-scalar and agent-centered perspectives
* The politics of rescaling and the reconstruction of governance
* The inter-scalar tensions and globalization of social movements
* Transnational migration and the re-/de-territorialization of citizenship
* Territorial disputes and trans-border cooperation

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<th>A Reexamination of Militarization and “The Space Of Occupation”: a Comparison Perspective</th>
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|   | Takashi Yamazaki  
yamataka@lit.osaka-cu.ac.jp  
Rassem Khamaisi  
khamaisir@gmail.com |
|   | “Occupation” generally means “to place a country or countries under one’s own control with force” and indicates a form of territorial control by means of military force. “Occupation” also implies a transitional form of control before it turns into a form of governance based on the international law, whether it is complete transfer of state/territorial sovereignty (e.g. independence or annexation) or partial transfer (e.g. mandate). In other word, “occupation” emerges as a result of an exercise of force, represents an unestablished state of sovereignty in the occupied land, and occupies a political space such as (part of) a territory. Previous studies have shown that the concept of “absolute sovereignty” or “territorial sovereignty” as a supreme sovereign right based on territory was established in the seventeen-century Westphalian system. However, from historical and geographical points of view, the exercise of sovereignty has not necessarily coincided with the span of territory. As Agamben (2005) argues on “the state of exception” and “concentration
“space of occupation” allows political control to maximize its effect. Agnew (2005) calls this type of sovereignty “effective sovereignty.”

While such “space of occupation” causes the occupied to struggle for self-determination, international human rights, and legal justice, it gives rise to various political and cultural practices at the level of daily lives of the occupied that attempt to go through porous walls of effective sovereignty exercised by the occupying. Conversely, the heterogeneity of “the space of occupation” provides the occupied with the socio-geographical conditions in which they can create such active resistance. Hence, drawing on the concept of “militarization” by Enloe (2000), this session pays attention to various political and cultural practices in “the space of occupation” produced through multi-faceted militarization across the world (Yamazaki 2001). By doing so, this session will explore the structural mechanism that perpetuates the “occupation” and open up the prospect for a way to its dissolution through bottom-up processes. This session would like to compare case studies across the world, investigate the legal and structural aspects of the mechanism of the “occupation” in each case, and explore various political and cultural practices of the occupied in each “space of occupation” to find possible ways to the end of occupation.

9 Changing Geopolitical Imaginations of Asia
Alexander Murphy
abmurphy@uoregon.edu
The end of the Cold War, the break-up of the Soviet Union, the rise of China, and territorial disputes in Pacific Asia have challenged dominant assumptions about the Asian geopolitical order. How have Asian-oriented geopolitical imaginations evolved over the past quarter century? What has changed and what has not? What are the implications of shifting geopolitical ideas and assumptions for peace and stability in twenty-first century Asia? This session explores these questions with a view toward enhancing understanding of the role geopolitical ideas play in the international relations arena.

10 China’s Geopolitical (Re)
Chih Yuan Woon
Recent popular and academic discourses have speculated much on “China’s rise” and its
Positionings in a Changing World

chihyuan@nus.edu.sg

implications for the future geopolitical order. Representations of China, which oscillate between a positive ‘rise’ or negative ‘threat’, bestow on the Chinese state, explicitly or implicitly, the power to make the world over according to its own desires. Such perspectives in turn neglect the ways in which China’s interactions with the world often have to negotiate with broader geopolitical conditions, processes and actors. This session invites both theoretical and/or empirical papers to critically reflect on China’s ‘rise’ and its contemporary external engagements, to investigate the images and imaginaries generated through these various global projects and the ways in which they are significant in understanding how Chinese elites, individuals and organizations see China, how they hope to be seen by others and how they are symptomatic of China’s negotiations of its shifting position in the world. Possible themes/topics include but are not limited to:

i) The projected images of China and its significance and consequences  
ii) China’s ‘rise’ and its implications for changing geopolitical landscapes  
iii) China’s contributions to issues of global concern (e.g. development, governance)  
iv) China’s geopolitical engagements with different regions such as Africa, Asia, North America, Europe, etc. (i.e. how does China engage differently with different geographical regions?)  
v) China’s soft power and/or cultural diplomacy

Concepts, ideas and theories to explain and understand China’s ‘rise’ and its engagements with the world

China Looks South: Development, Infrastructure and Culture on the Border with Myanmar, Laos and Jussi Laine  
Jussi.laine@uef.fi  
Victor Konrad  
Victor.Konrad@carleton.ca

As China has grown rapidly during the last decades, also the relationships that the country shares with its neighbors have become increasingly complex. China’s ever-stronger regional assertion reinforces a broader trend of new dynamics in terms of spatial development, infrastructure but also culture as an inherent part of South East Asia’s increasing globalisation largely driven by China. The present situation has made the role of
Vietnam

borders, their changing significance and symbolism increasingly prominent. The concurrent global and regional integration processes and contention push for a dual process of de-bordering and re-bordering where the traditional role of borders as barriers is being replaced by more bridge-like borders seeking to connect, not separate. Taking a regional perspective on Chinese border reveals however that the function of borders is not just simply transforming one way or another, but due to the dual movement of integration and securitization, borders are simultaneously both opening and closing. This panel delves into Chinese borders particularly with Myanmar, Laos and Vietnam and looks at how an emerging China and especially its effort to engage Southeast Asia is affecting those closest to it. The panel draws from the border in seeking to illustrate how previously marginal and remote border areas in Greater Mekong Subregion have become important nodes of various flows and zones of cultural continuity and discontinuity.

| 12 | Postcolonial Literary Geographies | Patricia Noxolo | This panel engages with the postcolonial geographical politics of literary works. The spatialities of fiction have been addressed by a range of literary geographers in recent years (e.g. Sheila Hones, Angharad Saunders, JD Dewsbury), not only in terms of the description of place in the content of novels, but also in terms of the theorizing of space and spatial relations, both in the content and in the form of literary texts. Literary geographers have also been concerned with the extratextual and intertextual geographies of literary work, focusing on the geographies of reading and interpretation, as well as on the ways in which books as material and electronic objects flow and are distributed in space.

Geographers’ work on postcolonial fiction inevitably takes on the politics of these spatialities, in a highly unequal world and a highly uneven literary terrain. Postcolonial literary criticism has tended to focus on temporal politics, challenging colonial historical narratives by recognizing how postcolonial writers interrogate time, picking up the ‘scraps, patches and rags’ of lived experience in order to re-stage and splinter the linear historical... |
narratives of, for example, national development strategies or modernization more broadly. Postcolonial literary geographers have built on these insights to theorise the ways in which novels interrogate the spatial relations that are deeply embedded within colonial, racialized and gendered politics, both within individual texts’ content and form, and in the context of broadly metropolitan-biased global publishing, and the changes being wrought by new publishing technologies.

This session explores this growing terrain of postcolonial literary criticism, and elaborates it as a terrain for political debate, rather than as a bounded area of internal coherence. What are the relationships between anti-colonial and postcolonial literary criticism for example? Is postcolonial literature defined as a genre by its politics, or is its politics defined and developed by the literary genre? How are writers not only describing but also defining and theorizing spatial relations and the built environment? How does postcolonial literature circulate within global and local publishing and consumption regimes, and how do these flows inter-relate with the ways in which they are read and interpreted? Ultimately what are the politics of literary writing in a postcolonial world, and what are the particular tools that geographers can bring to their study?

C12.34 Population Geography

1 Migration and Changing Social Worlds in Asia: Negotiating Gender Subjectivities and Family Relations

Brenda Yeoh geoysa@nus.edu.sg

Globalisation and increasingly complex and multi-directional migration flows have not only accompanied the rapid increase in cross-border economic transactions in Asia but also have a major impact on human relationships within families and households. The quickening pace and intensity of Asians on the move – either as individuals or as families – have opened up opportunities for the performance of new gendered subjectivities for migrants and their family members, and at the same time, these gendered negotiations are also reshaping family roles, relations and responsibilities across space and time. The migration of breadwinning mothers, for example, has led to both heightened anxieties about the ‘care deficit’ experienced by left-behind children and also, hopeful anticipations.
that this phenomenon will lead to a renegotiation of the patriarchal bargain and more egalitarian gender division of household labour and carework. While welcoming papers focusing on the impact of migration on the negotiation of familial relationships and gender subjectivities in general, this session gives special focus to men's reworking of old and new subjectivities as part of families and households caught up in migratory processes.

2  Demographic Divide: Coping with Shrinking  Paul Gans, Prof. Dr. paulgans@uni-mannheim.de

Recent world population prospects of the United Nations demonstrate a globally lower population growth. However, significant differences in patterns of population development are already evident on the level of the major regions and continue on the national and sub-national level.

On the national level there are roughly two trends: On the one hand are mostly wealthy countries with total fertility rates so low that population decline and ageing are more or less guaranteed, on the other hand are mostly poor countries with high fertility, low life expectancies and high rates of natural increase.

These spatial disparities frame a complex demographic divide between more and less developed countries, but also among each group of these countries, between as well as among urban and rural areas. This demographic divide does affect the economic, social and political circumstances on national and sub-national level.

Shrinking and it’s consequences for population structure are future key challenges for spatial development in the 21st century. The underlying demographic development cannot be considered as a temporary population change but has to be regarded as consequence of a secular change of society which hits countries on the subnational level in different intensity.

Shrinking villages, cities and regions are characterized by vacant buildings, underutilized infrastructure, economic decline and social erosion. Dealing with shrinking and its population consequences is difficult in a society which is based on growth and in which investments are increasingly concentrating on the globally competitive metropolitan areas.
| 3 | Demographic Divide: Coping with Growth | Paul Gans, Prof. Dr. paulgans@uni-mannheim.de |

Recent world population prospects of the United Nations demonstrate a globally lower population growth. However, significant differences in patterns of population development are already evident on the level of the major regions and continue on the national and sub-national level.

On the national level there are roughly two trends: On the one hand are mostly wealthy countries with total fertility rates so low that population decline and ageing are more or less guaranteed, on the other hand are mostly poor countries with high fertility, low life expectancies and high rates of natural increase.

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Population growth and its consequences for population structure are future key challenges for development. Population growth interacts with numerous factors including poverty, education, health or institutional capacity and hits urban as well as rural areas.

Despite all success reducing population increase in the past growing villages, cities and regions in most less developed countries are characterized by a high percentage of young people who have limited future prospects in the light of scarce health and educational infrastructure as well as low access to resources like the labour market.

Papers are welcome with topics to the following questions:
| Processes of Population Change and Migration | Jianfa Shen  
jianfa@cuhk.edu.hk  
Yu Zhu  
zhu300@fjnu.edu.cn | Which divides exist with regard to selected indicators of development like education or health according to urban and rural areas? Which strategies of coping are applied by households in urban or rural areas experiencing a high population increase? Which governance does pursue the administration from local to national level to improve the access to infrastructure and resources for the total population? 

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 for sustainable development. 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. Participants are welcome to submit full papers to the session organizers at the end of September of 2016 for consideration of possible publications in journal special issues or books. |

| ‘Urbanization and Population Change in China: Parallels and Differences to the Developed World’ | Darren P Smith  
d.p.smith@lboro.ac.uk  
Shenjing He  
shenjing.he@gmail.com | Diverse processes of urban (and rural) change in China are increasingly being (re)conceptualized and (re)theorized in both population and urban studies (e.g. Wu, 2014). As academic scholarship on ‘Transitional China’ continues to flourish (e.g. Wang et al., 2015), this poses pressing questions about the salience of transposing dominant concepts and theories from the developed world to understand the demographic, population and other related changes in the Chinese context. This is exemplified by recent studies of gentrification (e.g. Ren, 2015), studentification (e.g. He, 2014) and counterurbanisation (Zhu et al., 2014; Wang and Shen, 2014) in China. |
This session aims to explore the merits and limitations of transposing distinct concepts and theories to understand population and urban changes that are unfolding in the Chinese context. The session aims to consider similarities and differences of the impacts of processes of urban change, with a focus on the reproduction and/or reconfiguration of local population structures and dynamics. A diverse set of papers are sought that grapple with these issues, and shed light on the ways in which populations are being transformed in China by contemporary processes of urban change, such as the emergence of urban villages, gated developments and global footprints of large, multinational organisations.

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<th>Migration and Climate Change an Overview with a Specific Focus on China and Asia</th>
<th>Etienne Piguet</th>
<th><a href="mailto:Etienne.piguet@unine.ch">Etienne.piguet@unine.ch</a></th>
<th>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 China and Asia.</th>
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| 6 | **Globalization and Rural Sustainability** | Ana Firmino | am.firmino@fcsh.unl.pt | Doo-Chul Kim | kim@okayama-u.ac.jp | Globalization and Rural Sustainability
Globalization entered in our lives and even if the local economy is trying to catch up, it will keep influencing our societies and our personal decisions for the better and for the worst.
There is a Global Change going on, which influences agricultural and food systems as well as a way of life in rural areas and in coming years, under a wave of new technologies, volumes of production may increase with far less labor input, which may well force people to migrate internally and abroad.
What agricultural futures and rural spaces are to be expected and how will the coming spatial organization of production and consumption find solutions that may contribute for the sustainability of rural areas are the challenges that we launch to the participants in the |
Land conversion from its natural state to human use is the most permanent and often irreversible effect of human interaction with the natural environment. The transformation of human socioeconomic activities exerts further impact on land use change. In the process when the current developed countries used to approach high level of urbanization and industrialization, what we have seen is the drastic land use and land cover changes which highly supported the socioeconomic transformations in those countries. Being a country of huge population, China has undergone rapid and intense socioeconomic transformations during the past decades. This process has been accompanied by the rapid land-use changes and modifications which swept the whole China. At the meantime, the emerging hollowing villages becomes aggravated when large amount of rural laboreres migrated to cities leaving the abandoned, unused residential land. How to revitalize the decaying countryside? How to improve land use efficiency and achieve land use sustainability? What are the connections between land use and rural development? What are the world experiences to be applied in China? The session tends to analyze the land use and rural sustainability from a global perspective. The topic covers the following themes:

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<th>Theme</th>
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<td>2. Urbanization and farmland protection</td>
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<td>Theme</td>
<td>3. Rural transforamtion and reconstruction</td>
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<td>Theme</td>
<td>4. Rural value and vitalizing decaying villages</td>
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Place names, also referred to as toponyms or geographical names, have always been studied by a host of disciplines and for diverse reasons (see e.g. TAYLOR 1998). Until recently, however, they were approached principally as "windows into the past" – be it linguistic (language evolution, distribution of dialects), legal (land ownership, feudal obligations), political and administrative (localization of forts, abandoned villages, and borders), agricultural and proto-industrial (forms of land management, localization of ponds, mills, or ironworks), geomorphological (localization of landslides, caves, and minerals) or biological (reconstruction of past distribution of certain species or identification of interesting habitats). Research in these areas has been very productive and continues to be developed by a number of investigators (see e.g. CONEDERA et al. 2007, KATHREIN 2009).

In recent years, however, we can observe an important development in place-names research across social sciences (especially in geography and anthropology) that represents a double break with the past. It is a break with the aforementioned approaches to place names and it is also a break with place names conceptualized primarily, or solely, as "windows into the past". Rather, the new approaches emphasize the contemporaneity of place names (while not ignoring their historical roots) and study them in relation to the political constitution, and contestation, of place, landscape, and identity.

This has made place-names studies an even more interesting field for geographers and even a point of convergence of various geographical sub-disciplines. The Joint IGU/ICA Commission on Toponymy has benefitted from this development in all the sessions organized so far since its foundation in the framework of IGU congresses and conferences, i.e. in Cologne, Kyoto and Cracow, when always quite a number of papers with various
geographical approaches were presented. The session in Beijing will lay a special focus on place-names as a social construct, i.e. to regard them as result of negotiations between human beings and groups within a society reflecting power relations. This means to have a focus on their construction as well as on their perception and interpretation. This includes also a look at the various practices applied in standardizing place names and making names official in different countries. Major questions arising in this context are:

1. What are the principal social forces structuring the contemporary toponymic landscape (name scape) and everyday toponymic praxis?

How is the toponymic landscape produced, performed, perceived, interpreted, and contested?

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<th>C12.38 Transport and Geography</th>
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China is experiencing dramatic expansion and changes in its airline network on all levels (sub-national, national, regional and global) that can be interpreted as a consequence of its rather recent integration into the world system and the globalised economy, internal and international migrations, growing middle class boosting the demand for tourism, with a new geopolitical focus on various places including Sub-Saharan African countries, etc. While several academic works have investigated China's airline network dynamics, little has been done to compare them with changes experienced by other emerging, large economies such as India, Russia and Brazil (the so-called BRIC countries). Yet each of these countries has followed a specific method of joining the world-system and the globalised economy. One can thus expect that the impacts on (and the overall dynamics of) each airline network have been different. In this context, we would welcome any geographical papers investigating changes in airline networks. All scales (namely domestic, continental or intercontinental networks) and
approaches are welcome, provided the authors compare China with at least one other BRIC country.
Potential topics include:
  o The determinants of airline networks or of passenger/good flows at the (inter-)metropolitan
  o The geopolitics of aviation liberalisation and its geography at the country-pair level
  o Network dynamics crossed with regional economic typologies (namely, which kind of spaces are affected by airline network dynamics?)
  o Inclusion vs. exclusion of peripheral/remote areas
  o Trends in charter flights
  o Spatial impacts of air transport
  o The case for airport noise (e.g., social geography of protests, how do local authorities deal with it?)
  o The geography of low-cost carrier operations
  o Network strategies led by national airlines out of their home country

2 Comparative Air Transport Geographies: China and Europe/North America
Frédéric Dobruszkes fdobrusz@ulb.ac.be
Jiao Wang jiaoewang@163.com
China is experiencing dramatic expansion and changes in its airline network on all levels (sub-national, national, regional and global) that can be interpreted as a consequence of its rather recent integration into the world system and the globalised economy, internal and international migrations, growing middle class boosting the demand for tourism, with a new geopolitical focus on various places including Sub-Saharan African countries, etc. While several academic works have investigated China’s airline network dynamics, little has been done to compare them with changes experienced in Northern America and in Europe, either at earlier times or currently. The question here is whether or not China’s aviation is following similar pathways than the two major economic blocs. In both cases, analysing the rationale for converging or diverging pathways would be stimulating, as it
would help to illuminate the relationships between airline networks, political systems, international relations, the modalities of economic development, etc. In this context, we would welcome any geographical papers investigating changes in airline networks. All scales (namely domestic, continental or intercontinental networks) and approaches are welcome, provided the authors compare China with Northern America and/or Europe.

Potential topics include:

- The determinants of airline networks or of passenger/good flows at the (inter-)metropolitan level
- The geopolitics of aviation liberalisation and its geography at the country-pair level
- Network dynamics crossed with regional economic typologies (namely, which kind of spaces are affected by airline network dynamics?)
- Inclusion vs. exclusion of peripheral/remote areas
- Trends in charter flights
- Spatial impacts of air transport
- The case for airport noise (e.g., social geography of protests, how do local authorities deal with it?)
- The geography of low-cost carrier operations
- Network strategies led by national airlines out of their home country
- The impacts of metropolitan patterns (including suburbanization and edge cities) on propensity to fly
- Competition between (and integration of) high-speed rail and air transport

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<th>3</th>
<th>High-speed Rail : Accessibility and Regional Development</th>
<th>Fengjun Jin</th>
<th><a href="mailto:jinfj@igsnrr.ac.cn">jinfj@igsnrr.ac.cn</a></th>
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<td>The rapid development of high speed rail (HSR) since 1964 has ushered the transport in “the second railway age”, and is bringing an unprecedented time-space convergence and impacts on regional development and integration on all levels, including international,</td>
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national, regional scales. Though HSR is quite expensive, the impacts of HSR on wider economic growth, environment, safety, convenience, transit choice are increasingly significant. More and more counties have submitted their own HSR plans or proposals, which makes the study about the relationship between HSR and regional development a hot topic.

Some scholars have addressed the impacts of HSR on accessibility, regional structure, economic development, environment, energy consumption and so on, but further improvements in terms of methods, scope, and perspectives are still warranted. Specifically, as the impacts of HSR are quite different in the regions with different social-economic background, it is of significance to compare the impacts of HSR lines in different countries; the results evaluated by different measures and perspectives might be different, so it is also important to develop a comprehensive methodology to examine the relationship between HSR and regional development.

In this context, we would welcome any geographical papers investigating the relationship between HSR and regional development, impacts of HSR, the evaluating approaches on all levels.

Topics of interest include, but are not limited to:

- Time-space convergence, regional efficiency and disparity based on accessibility caused by HSR
- Impacts on accessibility of HSR
- Changes in inter-city passenger/ freight flows caused by HSR
- Impacts on urban system and regional structure in different levels
- Social-economic impacts of HSR in different background, including on economic growth, environment, and travel behavior
- Competition and corporation of high-speed rail and the other transport modes (especially aviation transport), or the changes of transport choice caused by
| 4 | Transport and Social Equity | **HSR**  
  - Case study of the areas development around HSR stations  
  - Integrating HSR with transit in the cities  
  - The suburbanization and urbanization driven by HSR in China and other cases  
 | Pengjun Zhao  
  [Pengjun.zhao@pku.edu.cn](mailto:Pengjun.zhao@pku.edu.cn)  
  Karen Lucas  
  [K.Lucas@leeds.ac.uk](mailto:K.Lucas@leeds.ac.uk) | The role of transport in mitigating or exacerbating social equity has been widely discussed. Transport-related social equity is turning into a heated interdisciplinary research topic in geography, urban planning, sociology and so on. Various agents including the scholars, the governments, the enterprises and other social ties such as NGOs have been endeavoring to develop a more inclusive and harmonious society through the improvements of transport. However, more attentions still need to be paid to transport-related social equity. The existing conclusions are still mixed. New topics in the field are emerging with the appearance of new transport technologies, new types of social conflicts, new local economic problems, and new global environmental issues. In particular, transport-related social inequity in developing countries is increasingly attracting researchers and politicians’ interests. It seems we will be in the era of the “South Turn”. The session is concerned with the new trends of social inequity issues in both developed and developing countries. Topics of interest in the session include transport and social exclusion, the low-income people’s travel burdens, mobility in the ageing society, the transport disadvantaged (e.g. women with children, the disabled, and children), transport-related environmental justice, transport investments and social equity, travel demand management and social equity, and other topics about the social equality in the field of transport. |
| 5 | Smart Cities and Transit Oriented Development | **Cities worldwide have been developing alternative approaches to contend with ever worsening street and traffic congestion. Behavioural shifts in travel have been occurring in response to changing prices in transportation, resulting in more transit use. Transit Oriented Development (TOD) is the process of focusing the development of housing,** | Richard Knowles  
  [rd.knowles@salford.ac.uk](mailto:rd.knowles@salford.ac.uk)  
  Becky Loo |
employment, activity sites and public services around existing or new rail or bus rapid transit stations or stops. TOD is designed to create a relatively high density, compact and mixed urban form. TOD is now a very important part of a broader smart growth approach to urban development.

Smart Cities use digital technologies or information and communication technologies (ICT) to enhance the quality and performance of urban services and improve the management of urban flows, including transit services and highway traffic management. They provide real time responses to urban challenges such as traffic accidents, traffic congestion and severe weather. Smartphones enable people to better manage their personal daily mobility.

AIMS OF THIS SESSION
To share research output and experiences of the effectiveness of Smart Cities and TOD policies in a range of countries at different levels of development.

Globalization is not limited to production and its network. Trade of final products has been affected and facilitated by freer trading environment such as new international trading rules such as those set or to be set in the TPP and TTIP. Meanwhile, cross-border e-commerce-based B2C chains have been increasing rapidly as a new paradigm of global trade. All these changes in both regulatory environment and IT supports have brought new challenges, and forming new relations and patterns in transportation and logistics at various geographical scales. New global consumption networks are in the making with various levels and types of local connections and engagement.

This theme session aims at providing an opportunity to scholars like you who are interested in the areas of transport geography, logistics, trade, retailing, economic geography, and geopolitics to exchange and present their views and research outputs with focus on issues in relation to such a new and fast growing global consumption network. Examples of these issues are: the global network of express parcel firms, the hub and
|-------------------------------------------------------------|
| **1** Complex Urban Systems | Chaolin Gu  
gucl@tsinghua.edu.cn  
Denise Pumain  
pumain@parisgeo.cnrs.fr | Urban systems have seen radical changes in recent decades and will continue to do so. How are various national, continental and global urban systems changing - particularly in relation to such features as city size, economy, migration, interaction, linkage, communication, transport 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 recognise 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. |
| **2** New Concepts and Methods in Urban Studies | Yanwei Chai  
chyw@pku.edu.cn  
Antoine Bellwald  
Antoine.Bellwald@unil.ch | As the world changes there seems to be more and more data and more and more things to measure. There are new forms of economic activity, increasing levels of personal and corporate communication, increasing mobility of capital and people, increasing levels of internet usage, increasing levels of e-commerce, and increasing levels of electronic participation in democracy. All of these have the potential to transform the inter and intra-urban realms in which we live. Big data may help our understanding of many urban problems, but there is also a need for increasing conceptual and methodological sophistication to deal with these changes. New theories, approaches, methods and
| 3 | Technological Innovations, Creative Activities in Cities, Innovative and Smart Building and Transportation in Cities | Feng Zhen  
[zhengfeng@nju.edu.cn](mailto:zhengfeng@nju.edu.cn)  
Céline Rozenblat  
[Celine.rozenblat@unil.ch](mailto:Celine.rozenblat@unil.ch) | Urban economies are evolving quickly, with the growth of the “service” sectors and new activities in science, technology, commerce, communication, media, art and design. Why do these activities concentrate in some cities and how do these new “clusters” integrate within existing economic, social and environmental contexts? Can we quantify “smart cities” or identify “creative activities”? Can one identify cycles in these economic trends? As a result of new technologies are all cities become “smart”? Does this “smart” growth benefit the entire city or does it increase polarisation and fragmentation? Does it alter the morphology and structure of urban areas and can it lead to new forms of urban society? |
| 4 | Polycentrism, Small and Medium Size Cities | Chunshan Zhou  
[zhoucs@mail.sysu.edu.cn](mailto:zhoucs@mail.sysu.edu.cn)  
Elfie Swerts  
[elfie.swerts@gmail.com](mailto:elfie.swerts@gmail.com) | At national or regional scales, small and medium size cities have very different issues depending on their proximity to large cities. In remote areas, small and medium size cities often lack higher education, and advanced services, that lead many young people to leave never to return. These places find it difficult to attract investment and are often by-passed in favour of larger more accessible locations. How can these places find new dynamism? Can they counter increasing concentration in metropolises? Can they provide an alternative approach or insight for sustainable urban systems? On the other hand if one focuses on a more city-region scale, small and medium size cities around the metropolises constitute new urban spaces such as “edge” or “edgeless cities” that remain under the influence of the central metropolis. What is the future of such places? To what extent are new polycentric patterns emerging and what is the likely impact on sustainability and spatial equity? |
| 5 | Creating Sustainability | Yuemin Ning  
[zhoucs@mail.sysu.edu.cn](mailto:zhoucs@mail.sysu.edu.cn)  
Maria-Jose Piñeira Mantiñán | Can sustainability be tackled at the urban scale? What progress is being made by cities 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 |
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<td>6</td>
<td>Dilemmas of Aging Cities</td>
<td>Xiaolu Gao, Rubén Camilo Lois González</td>
<td>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 and declining 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 so-called “shrinking cities” manage their future?</td>
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<td>7</td>
<td>Urban Governance, Planning and Participative Democracy</td>
<td>Anthony G. O. Yeh, Natacha Aveline</td>
<td>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 spatial issues that detract from good 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. In parallel, citizens are becoming more organized and becoming more active and involved in decision making at the neighbourhood level. This activism affects the way urban planning functions and is bound to have impacts on cities in the future. This will also affect urban areas beyond the traditional city.</td>
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<td>8</td>
<td>Contested Social Spaces</td>
<td>Shenjing. He, Jesús Manuel González Pérez</td>
<td>The increasingly multi-layered social and ethnic character of cities has led to more intricate life spaces within cities, and increased the potential for conflicts among various groups. Since many communities, made up of either Diasporas or cosmopolitans, exhibit strong intra-community cohesion, this 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</td>
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| 9    | Increasing Insecurity | Suhong Zhou  
eeszsh@mail.sysu.edu.cn  
Jon Bannister  
jon.bannister@mmu.ac.uk | 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 from 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 space? |
| 10   | Urban Heritage and Conservation | Honggang Xu  
xuhongg@mail.sysu.edu.cn  
Werner Breitung  
breitung@gmail.com | 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? |
| 11   | China’s Great Urban Transformation: Multidisciplinary Research on Urban China | Shenjing He  
sjhe@hku.hk  
John Logan  
John_Logan@brown.edu | Under the confluence of globalisation and marketisation, China has been urbanising with unprecedented speed and scale since the late 1980s. Cities of different sizes and geographical locations are undergoing drastic transformation. Interdisciplinary research approaches and analytical perspectives have been widely employed in the field of urban China studies to measure the historical development, velocity and magnitude of urban |
transformation, to examine the political and social metamorphosis, and to make sense of the multiplex matrix of socio-cultural transformations at different scales. This session aims to provide a platform for researchers from different disciplines to discuss their latest research. We are open to a wide range of multidisciplinary research related to China's latest urban transformations, which include but are not limited to: land and housing (re)development; urban planning/governance; rural-urban migration; social and cultural transformation.

C12.41 Geomorphology and Society (GAS & IAG)

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<td>1</td>
<td>Geomorphological Hazards For a Sustainable Society (Sponsored by the IAG)</td>
<td>Lin Jiun-Chuan, <a href="mailto:clin@ntu.edu.tw">clin@ntu.edu.tw</a>, Bianca Carvalho Vieira, <a href="mailto:biancacv@usp.br">biancacv@usp.br</a></td>
<td>Disaster Risk takes place when a vulnerable society can be affected by natural hazards. Among them, Geomorphological hazards are key elements for comprehending the interaction between the dynamic of the Earth's surface and human groups. Quite recently, major attention has been paid to the implementation of Disaster Risk Reduction Strategies and their relation to sustainable development aiming at the construction of sustainable societies. Basic and applied research on Geomorphological hazards, from local to global scales, can provide a solid ground to undertake specific actions that can contribute to build sustainable communities. This session will consist of papers devoted to research concerning the understanding of Geomorphological hazards and their applicability in Disaster Risk Reduction and Management. Also, intends to discuss topics such as: - Geospatial techniques and Geomorphological hazards - Methods including inventory maps, statistical tools, frequency analysis and physically-based models that are used to predict and help identifying and predicting susceptibility, risk and vulnerability areas - Techniques and methods for risk monitoring</td>
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<td>2</td>
<td>Geomorphology, Geomorphosites and Landscape (Sponsored by Emmanuel Reynard)</td>
<td>Emmanuel Reynard, <a href="mailto:emmanuel.reynard@unil.ch">emmanuel.reynard@unil.ch</a></td>
<td>Geomorphosites – i.e. geomorphological sites of interest for the reconstruction of Earth history, that are worth to be protected, promoted and transmitted to the future generations – present some specific characteristics if compared with other types of</td>
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| the IAG | Jiun-Chuan Lin  
jclin@ntu.edu.tw | geoheritage: they are often active site, evolving with time, they present often imbricated time and spatial scale components, and they are very often aesthetic sites, that have been considered as “natural monuments” by society, decision-makers and tourist sector. Addressing this landscape value of geomorphosites, and geomorphology in general, is the main focus of the proposed session. Communications and posters dealing with the following issues are particularly welcome:  
- methodological papers (assessment and mapping) and case studies dealing with landscape component of geomorphosites and geomorphology;  
- geomorphological processes and landscape evolution  
- landscape value of geomorphological sites and tourist promotion  
- geomorphology and cultural landscapes (in particular terraced farmland landscapes) |
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<td><strong>Joint Commissions</strong></td>
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| 1 | Cultural Geographies of the Digital  
- C12.07 Cultural Approach in Geography & Geography of the Global Information Society | Tilo Felgenhauer  
[Tilo.Felgenhauer@uni-jena.de](mailto:Tilo.Felgenhauer@uni-jena.de)  
Mark Wilson  
[wilsonmm@msu.edu](mailto:wilsonmm@msu.edu) | The advent of the digital age is considered to include major shifts in the everyday world and its geographies. Routines of communication and media use, mobility and travel, production and consumption – to name a few – are transformed, challenged, or enhanced by the use of digital devices and infrastructures. These processes not only call for a careful examination of the new information and communication technologies’ (ICTs’) effects. They also question the traditional categories or dichotomies that guide our understanding of the (digital) world. For instance, the increasing use of smart devices in everyday life (“ubiquitous computing”) presents us with the question of dividing lines between “real” and “virtual” spheres. Do everyday practices change in character through ICTs, do they perpetuate an “analogue” logic, or does the distinction between “on-“ and “offline” collapse in the course of a growing digitalization? Furthermore, questions pertaining to the role of the subject and the social arise: Does the digital mediation involve new modes of social relations? How do ideas of subjectivity, individuality, and human agency change in |
the face of an increasing informational or computational augmentation of everyday lives? By and large it can be assumed that integrating digital technology into the everyday world is a complex, culturally and socially differentiated process that resists any all-embracing descriptions. Given this background, the session approaches the complex intertwined relations between society, technology and space from a Cultural Geography perspective. It aims at topics beyond the conventional approach towards technology, that considers ICTs as the prior agent helping to conquer (or even “erase”) spatial distances and being the ubiquitous driving force of globalization. Instead, digital technology as a means of everyday practice is invoked, comprehended, transformed, adapted, and constantly reproduced by its users. Thus, (digital) technology is subject to creative, innovative and always socially embedded action. We would like to invite contributions which share the outlined Cultural Geography perspective. Examples could address:

- the appropriation of digital technology and media within both individual lifeworlds and institutionalized action settings
- the re-negotiation of urban space
- the digital representation of ecological relations
- the renewed relevance of local and regional identities in digital media
- cultural and social differences in the appropriation of digital technology

### 2

**Geographical Imagination, Practices and Stories of Finisterrae and Border Spaces**

- C12.07 Cultural Approach in Geography & Enrique Aliste
  - ealiste@uchilefau.cl
- Perla Zusman
  - perlazusman@yahoo.es

During the history of state formation, some territories were constructed as borders or finisterrae through practices such as exploration, delimitation and demarcation of boundaries, narratives or visual representation of their limitations, or the attribution of certain economic, social and political qualities. States devised several projects (creation of national parks and reserves, expansion of infrastructure and human settlements, indigenous reserves etc.) in order to incorporate finisterrae not only into the nation but
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| 3       | Cultural Aspects of Sustainable Urban Development | Daniel O'Donoghue (daniel.donoghue@canterbury.ac.uk) and Karsten Gaebler (cultural.approach@uni-jena.de) | Sustainable urban development is currently one of the guiding concepts for designing urban futures. Whereas in many contexts technological, political, or economic aspects of sustainable urban development are being discussed intensively, its cultural dimension often remains under-researched. Yet urban dynamics are set in motion, comprehended, and assessed by and through culturally specific practices, perceptions, and forms of knowledge. Transforming cities and urban areas into regenerative places is thus primarily connected to understanding the cultural roots of (non-)sustainable urban development. The session will address cultural aspects of sustainable urban development. In particular, we welcome contributions addressing the following topics and fields:  
- concepts of urban nature and urban environments  
- narratives of sustainable urban futures in art, film, and literature  
- understandings of sustainability in urban planning  
- local knowledge and urban environments  
- cultures of participative urban development  
- cities and civic ecology practices |
| 4       | A Woman’s Place is in the City! | Joos Droogleever Fortuijn (j.c.droogleeverfortuijn@uva.nl) and Tomoko Kubo (tmkkb@gifu-u.ac.jp) | “A woman’s place is in the city” is the title of a seminal article of the feminist geographer Gerda Wekerle, published in Antipode in 1984. “Questions of urban policy, land use, housing and transportation are being newly defined as women’s issues and the legitimate focus of the women’s movement” (Wekerle 1984, p. 11). The title is a descriptive as well as a normative statement: women belong to the city and the city belongs to women. The article was a passionate plea to change cities and city planning practices: “Cities are still
planned by men for men. While the lives of women have changed radically, the urban environment in which they live have not” (ibid. p. 11).

Thirty years later, the analysis and ideals of Wekerle are still relevant. More than half of the population lives nowadays in urban areas and more than half of the urban population are women. It is time to re-evaluate Wekerle’s analysis and ideals.

Contributors for this session are invited to present papers on topics such as women’s daily living in cities, space and place making, urban networks, feelings of belonging, women’s activism to change urban spaces, and a critical analysis of urban policy, land use, housing and transportation and how this has changed in the past 30 years.

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**5 Demographic Sources and Methodologies to Study Human Mobility**

- C12.17 Global Change and Human Mobility & C12. 34 Population Geography

Josefina Domínguez-Mujica

Joséfina.dominguezmujica@ulpgc.es

Etienne Piguet

etienne.piguet@unine.ch

Since the establishment of a Population Commission by the Economic and Social Council of the United Nations in 1946, and of the United Nations Population Fund (UNFPA) in 1969, the availability of demographic information has improved the research on Population Geography, especially when estimations and projections are needed. Moreover, data collections on issues such as population, fertility, mortality, migration and urbanization have facilitated the work of academia besides governments and organizations worldwide. Many countries have achieved important progress with their own Statistical Institutes at regional and national levels, offering an improved and larger collection of demographic data.

Additionally, the quantitative analysis has consolidated despite the increasing difficulties in the case of human mobility. Data is usually not comprehensive, and cannot fully reflect certain flows that remain hidden from statistics. This is probably the reason to a wider exploitation of qualitative information when it comes to human mobility. As a consequence, the descriptive and exploratory data analysis, serving scholars to formulate hypotheses with the help of statistical computing packages, is counterbalanced by a heterogeneous set of qualitative methods and by a mixed methodology. New procedures such as in depth-interviews, longitudinal analysis – that can also be quantitative–,
Human mobility is widely recognized as a key facilitator for transformations and challenges to urban spaces. The complex assemblage of urban disparities in social and economic terms and the subsequent vulnerabilities require a nuanced and multidimensional perspective from the spatial mobility issues. Traditionally, the focus on vulnerabilities in urban studies has been linked to the analysis of the economic and social consequences generated by the rural-urban migrations and, especially, by the accelerated rural-urban relocation in the case of developing countries. Rapid urbanisation and a growing number of slums are one of the most outstanding ideas enhancing the mutual interaction between human mobility and urban vulnerable environments. Other consolidated knowledge trend relates to the international migrations and its contribution to different processes of urban social segregation or, in other words, to the ethno-cultural urban segregation. The urban studies developed since the twenties by sociologists of the Chicago School of Human Ecology were the starting point to a fertile and prolific research path on urban structures and on processes of residential differentiation associated to urban vulnerabilities. From a geographical perspective, since the fifties, the deductive models to analyse social areas have been marked by an increasing number of ethnic and migration statuses, in correspondence with the development of social perspectives in urban studies.

Besides these two main trends of knowledge, the findings on the role of human mobility contributing to increase or decrease vulnerabilities have had several achievements. The study of opportunities or lack of opportunities linked to daily mobility maintains a close relation with the research on urban infrastructure and transport. These are two important mechanisms promoting the development and safety in the cities through accessibility. Other related topics include the mobility and immobility from the point of view of gender,

| 6 | Human Mobility and Urban Vulnerabilities | Daniel O’Donoghue [daniel.donoghue@canterbury.ac.uk](mailto:daniel.donoghue@canterbury.ac.uk) | Josefina Domínguez-Mujica [josefina.dominguezmujica@ulpgc.es](mailto:josefina.dominguezmujica@ulpgc.es) | Human mobility is widely recognized as a key facilitator for transformations and challenges to urban spaces. The complex assemblage of urban disparities in social and economic terms and the subsequent vulnerabilities require a nuanced and multidimensional perspective from the spatial mobility issues. Traditionally, the focus on vulnerabilities in urban studies has been linked to the analysis of the economic and social consequences generated by the rural-urban migrations and, especially, by the accelerated rural-urban relocation in the case of developing countries. Rapid urbanisation and a growing number of slums are one of the most outstanding ideas enhancing the mutual interaction between human mobility and urban vulnerable environments. Other consolidated knowledge trend relates to the international migrations and its contribution to different processes of urban social segregation or, in other words, to the ethno-cultural urban segregation. The urban studies developed since the twenties by sociologists of the Chicago School of Human Ecology were the starting point to a fertile and prolific research path on urban structures and on processes of residential differentiation associated to urban vulnerabilities. From a geographical perspective, since the fifties, the deductive models to analyse social areas have been marked by an increasing number of ethnic and migration statuses, in correspondence with the development of social perspectives in urban studies. Besides these two main trends of knowledge, the findings on the role of human mobility contributing to increase or decrease vulnerabilities have had several achievements. The study of opportunities or lack of opportunities linked to daily mobility maintains a close relation with the research on urban infrastructure and transport. These are two important mechanisms promoting the development and safety in the cities through accessibility. Other related topics include the mobility and immobility from the point of view of gender, |
and its subsequent implications in the living conditions of certain urban areas. In the framework of health studies, it is possible to find numerous reflections about the importance of migration and mobility in facilitating the spread of infections. A high number of structural vulnerabilities can therefore be examined in the light of the most recent outcomes in human mobility.

The organizers invite submission of papers with a wide spectrum of themes related to the intrinsic connection between human mobility and urban vulnerabilities, and with a wide spectrum of spatial scales – ranging from supranational, national and regional, to local levels.

| 7 | Conversations Between Gender and Political Geographies Key Concepts, Methods and Themes | Virginie Mamadouh v.d.mamadouh@uva.nl Marianne Blidon Marianne.blidon@univ-paris1.fr | Feminist political geographies and feminist geopolitics have demonstrated the fruitfulness of an encounter between political geography and gender geography, two sub-disciplines of human geography unequally developed across the world. The interface of gender and political geographies is even richer, as these two subdisciplines of geography have many common objects of research. Since the 1970s, feminists have highlighted that “the personal is political”, putting the focus of gender studies on the political stakes of relations between men and women. Conversely, politicians have legislated on sexual and gender issues in a broad arrays of domains, these questions are even be used to legitimize military engagements abroad like the American led Western interventions in Afghanistan...) foregrounding gendered ‘othering’ processes in geopolitical representations. This session is jointly organized by the Commission on Political Geography and the Gender and Geography Commission to establish a dialogue between researchers from these subdisciplines around three topics: key concepts, key methods and key themes. The objective of this joint session is to enable a dialogue between researchers working in different academic contexts, in different fields and in different parts of the world but also to promote an original comparative and dialogic approach that opens the debate between these two geographical sub-disciplines that have a lot to contribute to each other with |
Here is a (non-exclusive) list of the dialogues that we would like to encourage:

- Dialogues around core concepts in gender geography and/or political geography; most specifically engagements with space/place/territory/border and boundaries/scale/nation/power;
- Dialogues around methods, tools and approaches in gender geography and/or political geography; more specifically multiscalar analysis, the uses of maps, GIS, big data, the importance of fieldwork, work with focus groups, image analysis, cultural analysis;
- Dialogues around central themes in gender geography and/or political geography, more specifically the place of the individual; the body; safety, violence, war; home, inequality; globalization; borders; and mobility;
- Dialogues about the diversity of academic practices: What kinds of gender geographies and/or political geographies across the world, more specifically how do practices evolve inside and outside Anglo-American geographies? And how do with academic traditions differ across the world, more specifically in national contexts where both gender geography and political geography are (still?) marginalized sub-disciplines?

Case studies and comparisons are welcome. We strongly encourage co-authored papers or coupled papers in which participants from different academic background (disciplinary or national) address a similar topic. (NB: if you submit separate but coupled papers please inform the convenors about the linkage between your abstracts, so that we can make sure that the presentations are scheduled in the same time-slot of the session).
contemporary forms of mobility, there has been relatively little research on international student mobility in comparison to other forms of migration. The aim of this session is to advance our understanding of contemporary student mobilities regarding the issue of who moves, why they move, where they move, how they move, when they move, with whom they move, and whether they stay after their studies or move on. A central premise of this session is that there is no homogeneous answer to the former questions. From the point of view of the agency of individuals, answers will depend on the student’s gender, class, ethnicity and nationality, her/his life-time trajectories as well as the national and transnational social networks he/she is imbedded in. From the point of view of the external agents that shape the student’s mobilities, 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. In this spirit, we invite empirical papers and/or theoretically driven presentations inspired by, but not limited to, any of the following questions:

- What are the different reasons motivating students to move abroad for higher education degrees? What are the students' strategies of mobility across transnational space? What are their pre-migration and post-migration experiences? What are the spatial and academic trajectories of students in time and space? How to explain the different types of trajectories?
- 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?
<table>
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<th>9</th>
<th>Role of Heritage Sites and Cultural Landscapes in Harmonizing the World - C12.25 Landscape Analysis and Landscape Planning &amp; C12.07 Cultural Approach in Geography</th>
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<td>Rana P.B. Singh <a href="mailto:ranapbs@gmail.com">ranapbs@gmail.com</a></td>
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<td></td>
<td>Shangyi Zhou <a href="mailto:twizsy@163.com">twizsy@163.com</a></td>
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- What are the outcomes and effects of international student mobility? What is the impact of student mobilities on changing urban form? To what extent do international students become skilled migrants in the host countries, and what are their labour market outcomes? What are different types of outcomes in the employment situations of international students as a function of their gender, nationality, and study discipline? How to explain the different types of situations?
- What is the role that external agents, such as governments, universities and recruitment agencies play in facilitating or restricting the cross-border mobility of international students?
- 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?

Most of the ancient cultures, especially the Asians in the ancient past ordered the natural world on cosmological principles and shaped harmonious relation with nature. Mountains and springs, plains and rivers, were sites and channels of sacred power from historical events and timeless sacred forces. And, geographical features were inscribed by human hands to mark their sacredness in the frame of built structures. Such natural and constructed places commonly became centres of religious heritage and pilgrimage, serving as pivot of harmonizing the world through their inherent message and underpinning meanings. That is how they require special care for understanding and planning. This Session will examine the role of religious heritage sites and cultural landscapes in harmonizing the world, with emphasis on awakening the deeper sense of cultural and heritage tourism, drawing upon the perspectives of multi-disciplinary and cross-cultural
interfa... beyond the world of Asia.

(A) **Sacred Landscape, Religious Heritage and Harmonizing the World**: Evolution of sacred landscapes: textual base and contextual reality, historicity and cultural continuity; growth and representation of sacred landscapes: pilgrimage archetype and mandala; sacredscapes and cosmological principles: spatiality of time and temporality of space in the context of sacrality, sacredscape and symbolism, relevance and rationality today in harmonizing the world.

(B) **Ritual Landscape and Cosmogram**: Ritual landscape: ritualisation process, cosmogram and complexity; cosmic geometry and cultural astronomy: geometry of time, travel genre and circulation network, hierarchy and patterns, sacred functionaries & sacred systems of network; sacred city and cosmic order, representation and identity between cultural (religious) landscape and heritage landscape.

(C) **Heritage Cities, Religious notions and making of Harmonious World**: ‘Interfaces’ and cultural interaction: sharing the experiences of different groups from different parts of the world, role of NGOs in mass awakening, deep ecology, defining and identifying cultural heritage, religion and cultural heritage management; planning for sacred places: heritage preservation and conservation, dynamics of change and ethical issues, social-cultural implications and public participation; issues of location, distribution and scale in spatial dimension of heritage cities; envisioning the role of religious heritage sites and cultural landscapes in harmonizing the world.

| 10 | Cold Socio-ecological Systems Under Hazards and Risks: Harmonious Approaches to Resilience Building | Tatiana Vlasova tatiana.vlsv@gmail.com Sergey Sokratov sokratov@geol.msu.ru | Cold socio-ecological systems embodying the Arctic, High mountains and the Antarctic experience rapid changes. These changes unavoidably increase the risks, which require deep understanding of the interrelations between various environmental, ecological and social components and driving forces. Presentations devoted not only to understanding, assessment, but proposing approaches for shaping changes and resilience building in complex Cold socio-ecological systems are invited. |
Mega events play a significant role as expressions of national identity, manifestations of global business, in the shaping of attitudes and values, and the remaking of urban space. These large scale events take many different forms, including sports (Olympics, World Cup, Asian Games), culture (World’s Fairs, Culture Capitals), and religion (the Hajj, Maha Kumbh Mela, World Youth Day). The global focus on one city or country for a specific event prompts use of the event for political, social, business, and urban redevelopment ends. The excitement, prestige, and glamour of the event brings together many interests that wish to use the event to achieve goals of profit, social change, urban development and city branding. Mega events are often seen as ephemeral, yet the changes associated with them leave a legacy in ideas and places. This session examines the many spatial dimensions of mega events such as planning, culture, economic impact, tourism and city/nation branding.

Approved Sessions of Key Topics

**Key Topic 1: Climate Change and Global Understanding**

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<th>1</th>
<th>Characteristics of the Pressure Distribution Between Matsumoto Iida in central Japan in sunny day</th>
<th>Yoshio Hanai <a href="mailto:hanaiyos@janis.or.jp">hanaiyos@janis.or.jp</a></th>
<th>For local pressure system of central Japan in sunny day, previous research has explained that local high pressure is generated by the earth’s surface cooling at night, and that the local low pressure is generated by the heating of the ground by the solar radiation in the daytime. In these studies, local pressure system has been examined by the air pressure reduced to sea level of mainly Japan Meteorological Agency observatory. However, since the number of stations is small, to detailed analysis of local pressure system has limitations</th>
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<td>Yasushi Sakakibara <a href="mailto:ysakaki@shinshu-u.ac.jp">ysakaki@shinshu-u.ac.jp</a></td>
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We placed a highly accurate barometer in the vehicle, by moving the measurement on the motorway, tried to survey the detailed structure of the local pressure system. Observation interval was between Ina basin from Matsumoto basin in Nagano Prefecture. Observation of local pressure system was carried out by selecting a day atmospheric pressure changes in the synoptic covered in widely high pressure is low. We select the time zone of the early morning and evening that pressure change is minimized, was carried out in early morning 11 times and the evening 18 times of observation from April to November 2014.

In the evening of the pressure deviation distribution, four patterns of A, B, C-type and the local type appeared. We examined the characteristics of each type from ground weather chart, Chubu local weather map, and surface wind system. A type is a type that decrease pressure of the pan bottom shape is seen in Matsumoto basin, appeared in summer from spring. This is the case that most local low pressure is developed. The presence of type A suggests that the center of the local low pressure in Chubu day develops in Matsumoto basin. Development of local low pressure becomes weaker as it goes C type from B-type.

In the B-type and C-type, there were some local pressure rise cases that appear in the following section a few km when pass in Ina basin. Cause local pressure increase was estimated from the relationship between topography as a mountain wind from Kiso Mountains eastern slope. Local type is the type seen pressure change in a few tens of km of interval from a few km, the temperature change was observed at the same time.

In the early morning of pressure deviation distribution, 4 pattern of P, Q, R type and local type appeared. These showed the presence of local high pressure that developed during the night. However, pressure change when compared to the evening of the type is small. The future, we explore the relationship between the local atmospheric pressure system and the weather elements such as temperature changes and wind direction wind and expect to promote the detail analysis.

According to the “Global Risks 2014” of the World Economic Forum Report, water crisis
has been identified as one of the top 10 global risks. Water use has been growing at more than twice the rate of population increase in the last century, and, although there is no global water scarcity as such, an increasing number of regions are chronically short of water. By 2025, 1 800 million people will be living in countries or regions with absolute water scarcity, and two-thirds of the world population could be under stressed conditions. The situation will be exacerbated as rapidly growing urban areas place heavy pressure on neighboring water resources.

Imbalances between availability and demand, the degradation of groundwater and surface water quality, inter-sectoral competition, interregional and international conflicts, all bring water issues to the fore.

In arid and semi-arid regions, where water scarcity is almost endemic, groundwater has played a major role in meeting domestic and irrigation demands. In many regions, massive use of groundwater has been put into practice for some time for irrigation. Groundwater mining and the lack of adequate planning, legal frameworks and governance have opened a new debate on the sustainability of the intensive use of groundwater resources.

Valuation is an increasingly important tool in the process of allocating scarce water resources. However, the indiscriminate use of a purely economic approach risks overemphasizing monetary expressions of value at the expense of environmental and social values. Valuation frameworks are needed that recognize these three dimensions and in which stakeholders play a central role.

What are the scope and conditions for increasing water productivity in different sectors? Which tools should be used to enable the more efficient and equitable development and allocation of water? How can the best use be made of the water available? Which measures should be put in place to protect water resources and increase water supply?
Regional Science Collaboration on Integrated Transboundary River Basin Management – Case on Koshi River basin

| 3 | Regional Science Collaboration on Integrated Transboundary River Basin Management – Case on Koshi River basin | Shahriar Wahid | The Koshi River basin is a transboundary basin shared by China, India, and Nepal. The river originates on the high altitude Tibetan Plateau and passes through eastern Nepal and northern Bihar in India before joining the Ganges. The basin plays a key role in the irrigation of downstream areas and has a large potential for hydropower development. However, increasing population, urbanization, encroachment as well as climate change have added pressures to the basin’s freshwater ecosystems and sustainable livelihoods of local communities.

In this context, the International Centre for Integrated Mountain Development (ICIMOD) and the Australian Government’s Department of Foreign Affairs and Trade (DFAT) through its Sustainable Development Investment Portfolio (SDIP) have launched the five-year long Koshi Basin Programme – Phase I (KBP) in 2012, and are currently actively partnering with key national and international partners to strengthen a regionally coordinated management of water resources in the basin, and thus improve the wellbeing of local communities and support sustainable use of ecosystem goods and services.

As a partners driven collaborative programme, the KBP activities in the basin are carried out in close partnership with the Institute of Geographic Sciences and Natural Resources Research (IIGSNRR), Chinese Academy of Sciences (CAS) on Land Use and Land Cover Change (LULCC), Erosion and Land Degradation, the Institute of Mountain Hazard and Environment (IMHE), Chinese Academy of Sciences (CAS), Bihar State Disaster Management Authority and National Institute of Disaster Management and in India on water management and hazard risk reduction, Green Governance Nepal, WWF Nepal and Yunnan Institute of Environmental Sciences on ecosystem services assessment and | Yili Zhang | zhangyl@igsnrr.ac.cn |

Which institutional and legal set-ups are the most appropriate for ensuring adequate coordination?
What kind of information is needed and how is wide public ownership of water-related problems to be ensured?
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<th>Transboundary Waters - Cooperative transboundary water management</th>
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We are going towards a water stressed world as the global climate change and the economic globalization. The water scarcity and water pollution is becoming an increasing threat to peace and security, such as what happened in the North Africa and the Middle East recently.

There are 276 transboundary river basins and 200 transboundary aquifers in the world, which are shared by 148 countries and related to about 90% of the world’s population. “Water is at the core of sustainable development” (UN, 2012), but “There are numerous examples where transboundary waters have proved to be a source of cooperation rather than conflict” (UN, 2013).

In Asia, many large scale geo-cooperations have been based on the international rivers’ development, as China’s fast economic development in recent 30 years. In a world of rapid economic, political, demographic and physical change, the challenge of cooperation in the development and management of these international waters is becoming a major issue for human sustainability. Meeting these transboundary challenges will require transdisciplinary and international cooperation across hydrology, geography, ecology, and meteorology, hydraulic engineering, risk management, politics, policy, and law. Since 2013, China has been proactively engaging in expanding geo-cooperation across Asia, including the newly created Economic Zone of the Terrestrial Silk Road and the
21st century Ocean Silk Road” (“One Zone & One Road”) from Asia to EU. The “One Zone & One Road” is across the biggest dry region in the world and the high transboundary water conflict regions, such as South Asia and Southeast Asia. So, the new great initiative will have positive impacts on the approach for transboundary water cooperation. Benefit from the large scale geo-cooperation, the co-riparian countries in the “One Zone & One Road” could share the huge investment, the plentiful knowledge and the advanced technologies of water utilization and management from China, to facilitate the integrated water utilization and management. So, this session thus is motivated to focus on the topic of cooperative transboundary water management under the condition of global change. It will include following contents: (1) the multiobjective utilization of water resources; (2) the transboundary eco-compensative mechanism towards the upstream-downstream development fair in a river basin; (3) the international water laws; (4) reservoir operation and environmental flow management; (5) the capacity building for integrated water management.

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 Export
Processing Zones (EPZs) and Special Economic Zones (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 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.

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:

1. Theoretical considerations on the economic and political role of free economic zones
   It 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.

2. The development and transformation of the free economic zones in the world
   It is concerned with varying types of free economic zones, including Free Port, Free Trade
Zone, Export Processing Zone, Special Economic Zone, Economic and Technological Development Zone, Science Industrial Park, etc. It is not only concerned the Free Economic zones within a single country, but also outside the country, just like Chinese oversea Free Economic Zone.

3. Case studies of the free economic zones in different regions of the world
The cases include the present situation, impact, future and challenges of Free Economic zones in Asia, Europe, Africa and America such as Free Economic Zones of Singapore, Korea, Dubai, Holland, Greece, Egypt, Panama and Caribbean Area, etc.

6 Changing Borderlands Between China and Mainland Southeast Asia: A Global Perspective
Xiaobo Su  
Xiaobo@uoregon.edu
Border is a medium of transnational governance. Scholars have widely written about Euroregions and regarded them as essential laboratories for European political integration. Others who focus on the militarization of the US-Mexico border argue that the coercive practices of border control generate an instance of “gated globalism,” which entails the controversial process of granting more freedom to capital and less to migrants. The overwhelming attention to Euroregions and the US-Mexico border aims to advance theoretical and conceptual debate regarding borders, territorial politics, and the dynamics of cross-border region construction. However, this attention creates an invisible gap in the border studies literature to such an extent that scholars take the configurations of borders in the West as paradigms for understanding borders throughout the global south. The border between China and its neighbors does not receive adequate attention from the geographical community. Albeit conflict and tension, the border has remained stable and peaceful for many decades. When the Chinese state launches the going-out strategy and builds more and more strategies alliance partnerships with its neighbors after the 2007 global financial crisis, the borderlands between China and its neighbors have become new experimental zones, of zones of exceptions, for transnational trade and cross-border migrations. Is there an alternative to the modes of border control in Europe and North America? How does the Chinese state work with its counterparts to reterritorialize state
 sovereignty to regulate border crossing and promote transnational trade? To what extent does transnational trade shape ethnic cultures and the practices of everyday life in the borderlands? Addressing these questions, this session aims to bring some fresh thoughts on the strategies of reterritorialization and the changing landscapes of borderlands between China and its neighbors from a global perspective, in order to understand what happened in these borderlands had relations to a wide range of events in China, mainland Southeast Asia, and elsewhere.

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<th>Session</th>
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<td>Climate Change and Anthropocene</td>
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<td>8</td>
<td>Geo-political, Economic, Cultural Change and Conflicts</td>
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<td>9</td>
<td>Global Observation and World Data Systems</td>
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<td>10</td>
<td>Local Action and Global Social Governance</td>
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| 11      | Cryospheric Change and Its Impacts To Sustainability | Yongjian Ding dyj@lzb.ac.cn
Cunde Xiao cdxiao@lzb.ac.cn |

The cryosphere is the part of the Earth System consisting of all snow, ice and frozen ground on and beneath the surface of the Earth and ocean. It includes ice sheets, glaciers, ice caps, icebergs, sea ice, snow cover, permafrost and seasonally frozen ground, as well as lake- and river-ice. The cryosphere is a sensitive component of the climate system, and provides key indicators of climate change. Changes to components of the cryosphere may impact sea level, water resources, ecological status, the frequency of occurrence of glacier lake outburst and other natural hazards in cold regions, and thus have environmental and engineering significances. We welcome and encourage contributions from a broad range of cryospheric research subjects, such as climate change in cold and arid regions; observed changes in cryosphere; climatic and environmental record in the cryosphere; impacts of...
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<td>12</td>
<td>Rapid Change and Its Dynamics In Cryosphere During the Last Decade</td>
<td>Shichang Kang, Ted Schuur</td>
<td>Unprecedented cryospheric rapid changes have occurred during the last decades, which are bringing profound impacts not only on the Earth surface processes but also social and economic sustainable development. The aim of the session is to reveal factors of rapid cryospheric changes and mechanism of these changes. The session focuses on: 1) Regional differences in rapid changes of cryospheric parameters (glacier, ice sheet, snow cover, permafrost, sea ice, Lake/river ice); 2) Dynamics of rapid cryospheric changes, including changes in heat and energy cycles, carbon cycles, atmospheric circulation, light absorbing impurities, and other climate parameters in the cryosphere and their effects on rapid cryospheric changes in different regions.</td>
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<td>13</td>
<td>The Role Of Snow in Cryospheric Change</td>
<td>Tingjun Zhang, Mark Williams</td>
<td>Snow is one of our planet’s most important resources and one of crucial parameters of the cryosphere. Climate-driven changes in snow cover, now clearly underway, will have pronounced ramifications for our economic and social well-being because of the beneficial value of snow. Combined, the widespread impact of snow in cryosphere, both positive and negative, demands that we understand where it is, how much of it there is, and how its amount and distribution is changing over seasons and decades, as well as the role of snow in cryospheric change. This information is of particular relevance in regards to water availability, food production, and power generation. It is equally important in our efforts to predict the future trajectory Earth’s climate and cryospheric change, in which snow plays an outsized role. Snow properties like albedo, surface roughness and thermal conductivity control the surface energy budget when the ground is snow-covered. This session calls for abstracts and papers covering a wide range of topics related with snow measurements, modeling and remote sensing and its role in cryospheric change. We encourage abstract/paper contributions on observed changes in snow at various time and</td>
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<td>14</td>
<td>Permafrost Engineering Under A Persistent Warming Climate</td>
<td>Wei Ma <a href="mailto:mawei@lzb.ac.cn">mawei@lzb.ac.cn</a> Fujun Niu <a href="mailto:niufujun@lzb.ac.cn">niufujun@lzb.ac.cn</a></td>
<td>Economic development in cryospheric regions has brought extensive human infrastructure expansion. However, it is believed that the cryosphere is under continues degradation, which leads serious influences on local infrastructures. Under such a background, engineering designs, constructions, operations and maintenances in the areas are facing with unique problems. As the infrastructures are in or on the cryosphere, such as permafrost, the thermal and dynamic properties would greatly influence the subgrade stability, interdisciplinary and integration studies on frozen soil tests and related apparatus, still need to be studied and promoted. In this session, we intend to invite contributions related to basic thermal and dynamic properties of cryosphere, designing principle, methods and their efficiency and adaptability in the cryospheric regions; main challenges to infrastructure constructions, problem assessment; identification and assessment of potential solutions; implementation of solutions and management of the infrastructures; and monitoring method and early warning system.</td>
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<td>15</td>
<td>Global Change and Biometeorology</td>
<td>Pablo Fernandez de Arróyabe <a href="mailto:fernandhp@unican.es">fernandhp@unican.es</a> Junhu Dai <a href="mailto:daijh@igsnrr.ac.cn">daijh@igsnrr.ac.cn</a></td>
<td>Global change has become a fundamental topic in geographical science in the last decades. National Global Change Research Committees (WCRP, IGBP, DIVERSITAS, IHDP) are becoming together in a new interdisciplinary Committee (Future Earth) in order to study global environmental and social changes in a more multidisciplinary way. In this sense, Future Earth initiative was announced in June 2012 at the United Nations Conference on sustainable Development (Rio +20) One of the main global environmental changes is climate change. Biometeorology is an interdisciplinary science which has studied the interaction between atmospheric processes and living organisms - plants, animals and humans for decades. International Society of Biometeorology was created in 1956 trying to find answers to the main question of how</td>
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Weather and climate impact the well-being of all living creatures. Some examples of topics which are considered by the different members of the ISB Commissions (Phenology, Climate and Human Health, Animal Biometeorology, Climate and Tourism...) includes:

- The relation between agricultural yields production and weather
- Climate change and emerging diseases; weather and climate impacts on human health
- Shift for Vegetation geography due to climate changes in recent years
- Prevention of animal extinction by better understanding of how animals adapt to climate change. Seasonal changes of phenophases (including pollen production) due to climate change
- The development of biophysical model to explain atmosphere-physiology interactions
- Use of new technology (biotechnology, genetic engineering and modeling) for improving animal and human adaptation
- Development of early warning systems based on biometeorological forecasting

Most of the referred topics have a clear geographical dimension where social and physical dimensions are integrated. Nowadays, the new Global Framework for Climate Services (GFCS) is focused on issues such as Agriculture and Food Security, Water Availability and Health. This framework has generated a great opportunity to study global problems at different scales in order to mitigate environmental impacts and define strategies for adaptation to weather variability and climate change.
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water resources. The presentations of this session will address the biophysical and broader policy dimensions of water allocation strategies and their ecological impacts and implications. The session’s research perspectives cover climatology, glaciology, hydrology, land use/land cover, plant ecology, and political ecology. Research methodologies and technologies include climate modeling, remote sensing-based analysis, geocomputation, field investigation, and qualitative methods. These presentations underscore the importance of assessing water scarcity as a coupled human-natural system and demonstrate the role of interdisciplinary approaches.

| 3 | Natural Disasters and Vulnerable Spaces, Resilience, Coping and Adaptation in South Asia | Anjana Mathur Jagmohan  
dr.anjanageog@gmail.com  
Jag Mohan Arya  
jmanjana@yahoo.com | The session aims to embrace the vulnerable spaces, gendered vulnerability, coping and adaptation, post natural and man-made disasters. With the spread in types and intensities of disasters in South Asia, as a consequence of Global Climate Change, the session is likely to cover topics like social, economic, cultural and psychological impacts of a disaster on the marginalized and weakest sections of society. Through this session, the travails, predicaments and inequalities faced by those living on the fringe of the main society - women, children, old and the homeless - even during the times of disaster, shall come into the limelight. Also to be included are the hitherto unrecounted chronicles of disaster risk reduction, roles of local, national and international communities, NGO’s and Self Help-Groups in rebuilding and preparation, Vulnerability and Capacity Assessment, sustainable, eco-friendly, innovative and indigenous strategies to combat calamities in South Asia. |

| 4 | Women's Health and Well Being: An Indian Perspective | Haseena Hashia  
hhashia@jmi.ac.in | Health and well-being is considered as the foundation of any society or country in the present day world. Health is defined as the metabolic efficiency of a living being. World Health Organization (WHO) has defined health as, “a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity”. Good health therefore means the combination of a number of factors having direct or indirect influence on the human health. These factors include social, economic, psychological, mental, |
availability of health care facilities, environmental hazards and pollutions etc. Health is related to quality of life. The developing and underdeveloped nations of the world pay less attention and give low priority towards the health and health care of their masses which is evident from their low budgetary allocations towards the health sector. Food and nutritional security is not provided to people and undernourishment leads to severe health problems.

India is a developing country where health of people is not the responsibility of the state. Indian society is a tradition bound society with strong patriarchal values. Women are considered as second sex and second citizens who are born to die in the backyard of human civilization, carrying on the burden of humanity for a mere pittance. Poverty, Social and Cultural norms coupled with various types of environmental hazards and pollutions, affect the women’s health adversely. They are subjected to various types of violences like bride burning, dowry murders, wife battering, female child killings, female foeticide, abduction, eve-teasing, verbal abuses, rebukes etc. In India women’s health and well-being is linked to women’s security and status. The aims and objectives of this paper are:

i) To assess the overall health situation in India.
ii) To explore the Well Being Index (WBI) and Social Security Index (SSI) of Indian women.
iii) To identify the various factors which greatly affect the health and well-being of Indian women.

This paper will be based on primary as well as secondary data. The results will be depicted on maps using GIS (Geographical Information System) technology.
Lin Liu
lin.liu@uc.edu

and collaborative integration of scholars. Spatially integrated social sciences and humanities will transform an isolated and purely academic pursuit focused inward to having a significant impact on public policy, industry, and other disciplines. The session theme is “Spatially Integrated Humanities and Social Sciences”. Scholars will report their studies on spatially integrated humanities and social sciences development, and to share their vision about the research trends in this field. The session will provide a great opportunity for professionals and students from various disciplines to discover cutting-edge analytical methods and applications, while at the same time exchange ideas, research results, professional experiences, and future visions in the area.

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<th>Environmental pollution and monitoring</th>
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<td>8</td>
<td>Public services and social welfare</td>
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<td>9</td>
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**Key Topic 3: Geographical Science and Future Earth**

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<th>China’s Changing Food System</th>
<th>Steffanie Scott <a href="mailto:sdscott@uwaterloo.ca">sdscott@uwaterloo.ca</a></th>
<th>Zhenzhong Si <a href="mailto:sizhenzhong@gmail.com">sizhenzhong@gmail.com</a></th>
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<td>China’s agro-food system has undergone dramatic changes in the past few decades: a rapid industrialization and capitalization of the agriculture sector, supermarketization of food retail, and dietary changes and rampant food safety crises, to mention just a few of the trends. The countryside suffers from a loss of farm labour, the stagnation of rural livelihoods, and the deterioration of rural culture. State-led developmental approaches (advancing an agri-industrial development model) to revitalize the countryside have failed to address these social and cultural concerns. This session will examine various dimension of the fundamental changes underway in</td>
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China’s agro-food sector. Themes include:

- the policy and practice around the protection of China’s agricultural land
- exploring why farmers support land privatization; China’s ongoing transition to a more “neoliberal” farmland use regime
- the turn by peasants and urban consumers alike new models to maximize social welfare and enhances food safety
- emerging ‘alternative food systems’ and ‘alternative food networks’ in China: community supported agriculture (CSA) farms, globally important agricultural heritage systems (GIAHS), and organic food and agriculture
- China’s path in developing and organic agriculture sector, in terms of the range of ownership structures and strong government roles.

Overall, this session demonstrates the role of China’s political economy—e.g., a developed rural land rental market, agrarian transformation toward agro-industrialization and vertical integration, the growth of China’s domestic organic market, and an emerging civil society—in shaping opportunities and constraints for developing a more sustainable food system. This analysis contributes to our understanding of the complexity and diversity of food sector developments within divergent socioeconomic contexts such as China’s

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<th>2</th>
<th>Industrial Dynamics and Regional Industrial Restructuring</th>
<th>Canfei He</th>
<th>Processes of competition vary in intensity across sectors and space. These processes influence patterns of firm entry, exit and survival at the same time as they are shaped by them. A large literature has emerged within economics and geography that explores firm dynamics and the changing composition of industries and regions. Much of this literature has focused on sectors and regions within advanced industrialized countries. Over the last few decades, we have witnessed major shifts in the spatial structure of industries</th>
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alongside structural transformations in a number of emerging economies. Market forces, state and local policy interact in complex ways driving these changes. We seek papers that focus on firm dynamics, industrial and regional restructuring in emerging economies. Papers of a theoretical or applied nature are equally welcome.

| 3 | Integrated modeling of the human-nature system co-evolution and the interactions between different components of the human-nature system | Xin Li  
lixin@lzb.ac.cn  
Xiangzheng Deng  
dengxz.ccap@igsnrr.ac.cn | Aim: One of the grand challenges in developing an integrated Earth-surface system model is simulating the human-nature relationship. “Research dominated by the natural sciences must transition toward research involving the full range of sciences and humanities.” This is illustrated in the Future Earth Science Plan. However, fully coupled models that consider the interactions and two-way feedbacks between natural and human systems are rare. Conventionally, when modeling socioeconomic behavior, natural factors, such as water resource availability, are used as model constraints. When simulating natural systems, the potential socioeconomic changes are used to set up scenarios. In both approaches, the model states of other systems are used as exogenous variables, and the interactions and feedbacks between natural and human systems are not well represented. From a social-hydrology perspective, the future direction is that human system states should be used as endogenous variables in the model so that the co-evolution of the water-ecology-economic system can be presented. The aim of this session is to discuss the challenges, progresses, and future directions of modeling the human-nature system co-evolution. Contents:  
(1) Conceptual or visionary thinking on how to model the complexity of the human-nature system;  
(2) Integrated modeling of the human-nature system co-evolution and the interactions between different components of the human-nature system;  
(3) Decision support system developed based on integrated model to support regional and river basin scale sustainability; |
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<td>4</td>
<td>Urban Physical Geography: Theory, Practice and Progress</td>
<td>Min Liu (<a href="mailto:mliu@geo.ecnu.edu.cn">mliu@geo.ecnu.edu.cn</a>) Hongxin Liu (<a href="mailto:Hongxing.Liu@uc.edu">Hongxing.Liu@uc.edu</a>)</td>
<td>Physical geography in urban areas has faced new problems and challenge because of human activities and intensive urbanization, such as impervious surface increase, and various built environments. In this circumstance, a new discipline, namely Urban Physical Geography (UPG), was gradually proposed, established and developed. The aim of this session will focus on new advancements in Urban Physical Geography in recent years, including a full theory framework and disciplinary systems, future key research fields. The main contents would include as follows: (1) The theory system of Urban Physical Geography;(2)Case study of Urban Physical Geography(UPG) in city sustainability and management, as well as practice and applications;(3)New advancements of research methodology, multidisciplinary processes and mechanisms, especially urban humanity - nature coupling research in UPG, etc.</td>
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<td>5</td>
<td>River forms in different geographic regions</td>
<td>He Qing Huang (<a href="mailto:huanghq@igsnrr.ac.cn">huanghq@igsnrr.ac.cn</a>) Gerald Nanson (<a href="mailto:gnanson@uow.edu.au">gnanson@uow.edu.au</a>)</td>
<td>Rivers are self-adjusting systems and exhibit various forms in different geographic regions. To understand how these forms are developed, this session attempts to provide a platform for presenting typical case studies undertaken in different geographic regions and also for debating about the physical principles behind the development. Furthermore, this section encourages studies on the vulnerability of river systems under the effects of both climate change and human activities and discussions about the adaptive management measures.</td>
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<td>6</td>
<td>Biogeography and macroecology: two lenses of one telescope</td>
<td>Zhiheng Wang (<a href="mailto:Zhiheng.wang@pku.edu.cn">Zhiheng.wang@pku.edu.cn</a>) Fumin Lei</td>
<td>The spatial and temporal distribution of biodiversity on earth has been intriguing biogeographers and ecologists since the times of Humboldt, Darwin and Wallace. In spite of the long history of studies, the mechanisms underlying large-scale patterns of biodiversity remain controversial. The hypotheses proposed in the last decades have been overwhelming, and evaluated the influences of many potential factors on life</td>
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distribution. However, new synthesis and approaches are needed to sorting these hypothesis and to enhance our understanding on the real causal processes.

In the past century, human-induced climatic and land-use changes have led to severe consequences on biodiversity. Recent evaluations have revealed drastic risks of biodiversity loss for many groups. Understanding the origination, distribution and maintainance of biodiversity is fundamental to nature conservation and the sustainable development of harmonious societies.

As a classic field of research, biogeography has focused on the understanding of the origination and distribution of biodiversity. The idea of macroecology as a distinct field of research has been around for more than two decades. The aim of macroecology is to search for generalized patterns at large spatial and temporal scales, and more importantly to search for statistical relationships to explain the distribution of biodiversity from a geographical, historical and ecological perspective. These two fields of research are like the two lenses of a telescope. Synthesis of the approaches and perspectives of these two fields will improve our understanding of large-scale patterns of biodiversity.

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<td>10</td>
<td>GIS Data Integration and Harmonization</td>
<td>Dan Lee <a href="mailto:dlee@esri.com">dlee@esri.com</a></td>
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<td>11</td>
<td>Research Problems in Arid Lands</td>
<td>Tao Wang <a href="mailto:wangtao@lzb.ac.cn">wangtao@lzb.ac.cn</a></td>
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<td>12</td>
<td>Climate Change and Its Impact on Different</td>
<td>Tao Wang <a href="mailto:wangtao@lzb.ac.cn">wangtao@lzb.ac.cn</a></td>
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<td>Dryland Ecosystems</td>
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<td><strong>13</strong></td>
<td><strong>Processes of Desertification/Land Degradation and Its Responding To Human Activities &amp; Climatic Change In Arid Lands</strong>&lt;br&gt;Tao Wang&lt;br&gt;<strong><a href="mailto:wangtao@lzb.ac.cn">wangtao@lzb.ac.cn</a></strong></td>
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<td><strong>14</strong></td>
<td><strong>Sustainable Use of Land and Water In Dry Areas</strong>&lt;br&gt;Tao Wang&lt;br&gt;<strong><a href="mailto:wangtao@lzb.ac.cn">wangtao@lzb.ac.cn</a></strong></td>
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<td><strong>15</strong></td>
<td><strong>Desert Environment and Wind Erosion Process (From Blown Sand Physics to Aeolian Geomorphology)</strong>&lt;br&gt;Tao Wang&lt;br&gt;<strong><a href="mailto:wangtao@lzb.ac.cn">wangtao@lzb.ac.cn</a></strong></td>
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**Key Topic 4: Geography in Different Cultures**

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<tr>
<th>1</th>
<th><strong>Cultural tourism in Saudi Arabia</strong>&lt;br&gt;MohammadShawqi Makki&lt;br&gt;<strong><a href="mailto:Makki14@live.com">Makki14@live.com</a></strong>&lt;br&gt;Miraj Mirza&lt;br&gt;<strong><a href="mailto:sgs@ksu.edu.sa">sgs@ksu.edu.sa</a></strong></th>
<th>1- Development of heritage conservation in Saudi Arabia By Prof, Mohammad S Makki&lt;br&gt;2-Geographical aspects of postmodernism of Hajj (pilgrimage) to Makkah By Prof. Ramze A. Elzahrani and Dr. Meraj N. Merza&lt;br&gt;3- The Zeyarah (visit) to Medina: A distinguished Religious Tourist Pattern by Dr. Mohammad A. Mishkes&lt;br&gt;4- Prospects for Cultural Tourism in Saudi Arabia: Archeological Rock Arts as a Model by Dr. Badr Adel Al-Faqeer</th>
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<td>2</td>
<td><strong>Resource Peripheries and Ethical Value Chains – Structural Challenges in Moving Beyond the Curse</strong>&lt;br&gt;Warwick Murray&lt;br&gt;<strong><a href="mailto:Warwick.Murray@vuw.ac.nz">Warwick.Murray@vuw.ac.nz</a></strong></td>
<td>The concept of Resource Periphery was introduced by Hayter et al (2003) referring to the specific role within globalization of areas relying on commodity exports – especially emphasizing the contestation of space that results. This discussion is linked to the analysis of resource abundance and how this perpetuates uneven development as well as</td>
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<td>3</td>
<td>Mobility of China model</td>
<td>Weidong Liu</td>
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<td>8</td>
<td>The &quot;Supermarketocracy&quot; - multilocal, multinational, multifunctional, multichannel</td>
<td>Ulrich Juergens&lt;br&gt;<a href="mailto:Ngg02@rz.uni-kiel.de">Ngg02@rz.uni-kiel.de</a>&lt;br&gt;Gequn Feng&lt;br&gt;<a href="mailto:fenggequn@nbu.edu.cn">fenggequn@nbu.edu.cn</a></td>
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<td>The goal of a session on supermarkets is to analyse the economic, social and political downside of their seemingly unlimited market expansion. There is an increasing tendency for supermarkets dominate regional or even state food markets as monopolists – or at least as oligopolists. In some European countries, more than 80% of all food product sales fall on just four or five retail chains. This &quot;success&quot; is based on the fact that supermarket chains today pursue multi-local location strategies, that is, they can be found in city centres, in shopping centres and in peripheral commercial areas as convenience markets. And they position themselves as meeting points with various amenity values, combining their locations with other retail market participants, both food- and non-food, thus providing their customers with new and novel retail clusters. This multifunctionality is also gaining increasing importance in the supermarkets themselves. In addition to their core business, they often provide their customers with</td>
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banking and postal facilities, (fast food) restaurants, play areas for children and special events (such as flea markets), even outside of core opening hours, in or in the immediate vicinity of the supermarket. Where expansion in "real space" is no longer sufficient, supermarkets (and discount markets) expand into virtual space, positioning themselves in the growing online retail market. These developments are becoming increasingly common even in so-called emerging markets (in Asia, South America and Africa), where supermarkets have become a symbol of a "Western lifestyle," for quality and product diversity.

What is the downside of this success story that needs to be addressed beyond marketing or real estate market perspectives?

1. How do (modern) supermarkets impact other (traditional) forms of food retail? How do they contribute to "improving" these retail forms (e.g. in shopping centres)?
2. Do (traditional) retail models adjust to these modern retail concepts or do they leave the market? How do they respond? What niche markets survive in the oppressive shadow of the supermarkets?
3. To what extent do local retailers (in emerging markets) imitate the success of global chains? Can these market participants compete, and if so, how?
4. What governance powers do supermarkets have, and what forms of governance power can citizens, competitors, customers or NGOs use in attempts to regulate their unlimited expansion?
5. Do supermarkets "improve" the local retail market or do they thin the latter out? How do customers experience this "improvement"?

Papers for this session might address this phenomenon from a wide range of perspectives, from new economic geography concepts (institutions, clusters), governance analysis or the learning and adaptation strategies of customers, competitors and citizens, and discuss the results of an emerging "supermarketocracy" both from local or global levels.
Given that in 30 years, more than 60% of the world population will live in cities, it is of great importance to consider alternative attitudes to studies on urban soils. Urban soils are situated inside urban areas. They co-evolved with the urban infrastructure under permanent anthropogenic influence. Urban soils are of growing scientific and practical interest as the urbanisation of the world accelerates.

Urban soils differ from non-urban soils in the origin of parent materials which are often technogenic substrates, in the dynamic of pedogenetic processes which are dominated by anthropogenic disturbances, and the balance between input and output of constituents, water and nutrients. Urban soils have specific physical and biogeochemical properties and they fulfil different soil functions compared to soils of natural or agricultural or forest ecosystems. This should lead to an adapted management and to a new classification system. (Because of their similar anthropogenic character, soils of industrialized, trafficked, mining and military areas are also addressed in this session).

Urban soils provide ecosystem services in watersheds that provide drinking water, in areas which are used for food production, industrial production, waste treatment, cultural life and recreation. In urban open spaces, soils offer specific urban habitats for vegetation and fauna leading to a comparable high biodiversity inside human settlements. In addition, these open spaces and every urban soil play an important role for the health of the urban system.

The management of urban soils, their use, their conservation and their remediation demand for systematic scientific investigation of urban soils, their functions and development. It is the goal of that multidisciplinary session to contribute to a better understanding of urban soils and urban ecosystems.

We invite contributions on the:

- Chemistry and physical properties of urban soils and technogenic substrates;
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<th>Adamu Idris Tanko</th>
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<td><a href="mailto:aitanko.geog@buk.edu.ng">aitanko.geog@buk.edu.ng</a></td>
<td>Drylands have been the focus of academic and policy enquiry into the links between vegetation modification and woodfuel production, consumption and exchange. Researchers have highlighted the socio-economic and ecological sustainability of rural-urban boundary zone in the face of urban energy pressures, and demonstrated the capacity of local agro-forestry and related pastoral systems to survive and prosper within the specific context of nature-society dynamics. Others have warned that the dynamic impacts of rapidly changing world economy – including the limited physical availability of, and economic accessibility to, non-wood energy substitutes – is challenging traditional resource management systems, and is threatening the long-term diversification and sustainability of local and regional systems in urban centres. Attempts to deal with the problems only through technical sector-based interventions designed and implemented through National Action Plans have been disappointing. It is clear that sustainable solutions require social transformation over a platform of consensus through which community trust and flexibility will be built, societies mobilized and empowerment through dialogue promoted. Most countries of the world with major dryland conditions will need to incorporate their urbanization trends into its future environment, development and energy strategies. Concerns such as these raise a series of key questions that geographers of different</td>
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sub-disciplinary backgrounds are well placed to address. For the proposed session, we focus two critical areas of enquiry in international environment-development research with a view to addressing the key challenges through socio-cultural interventions:

The quest for sustainable urbanization (and a re-newed interest in the environmental impacts that cities have beyond their boundaries); and

The transition to renewable and more sustainable energy in developing countries.

Goals and objectives of the session being to:

Critically review existing ideas, approaches and polices on urban energy with the view to assessing areas most prone to energy pressure in the selected urban areas and the desirability for alternatives;

Evaluate the different energy sources with a view to understanding the direction of movement on the energy ladder and analyse the acceptability of sustainable alternatives both spatially and temporally;

Discuss community and institutional mobilization strategies with a view to initiating ways of working as a team and to build trust for community empowerment and consensus;

Create acceptable learning situation through dialogue and negotiations that will lead to self critique and evolvement of scientific humility amongst different expert groups;

Design different levels of intervention including on matters/issues of climate change impacts as they may relate to urban energy;

Define different gender roles and create gender transformative approaches and corporate/social responsibilities in policy and implementations on urban energy.

Participation is open to all individuals/geographers interested in or working in the fields of national/global energy crisis and related environmental issues. Abstracts are invited for oral presentation, discussion and poster sessions.
policies adopted by various country governments, particularly led by India after 1991. Successive Governments in the country have pursued similar policies though perhaps nuanced differently. The unleashing of the Neo-liberal industrialism has spurred private investments both from the domestic enterprises as well as FDIs & FIIs. As a result of this new industrialism, a spate of new townships as well as suburbs around major metropolises have rapidly come about. In deed, in India the number of urban centres have increased from around 5000 in 2001 to around 8000 in 2011, the last population census carried out in the country, an increase by about 60%! This has spurred two apparent issues: (a) that there is increased demand on land for various manufacturing and service activities (including the IT parks, Special Economic Zones, the Industrial Corridor plans and townships etc.) and a situation of conflict between the investors/enterprises and the farmers (who numerically still account for over 60% of the population) and second, there appears a complete disconnect between the apparent benefits of new investments, employment generation though the new industrialism and the rural masses, who have received no direct benefits from this process—in the sense that the long term benefit that may occur to them, is not seen in the immediate context of loss of land and traditional livelihood. This perhaps, is not vastly different which was witnessed in the emerging economies of South-East Asia (like Thailand, Malaysia, Indonesia or Philippines) or in the Far-East as in China, Taiwan or South Korea.

The Geo-Economic implications of the instant processes as obtain in South Asia needs to be analysed and understood and appropriate ameliorative policies suggested, since once unleashed this process gathers its own economic momentum and there appears no possibilities of any reversal of the policies.

Sub-Themes:
1. Urban Fringes and Land Acquisition Policies
2. Impact of Special Economic Zones on Surrounding Rural Habitats
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<td>Environment Impacts of new Industrial Townships on fringe villages</td>
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<td>5.</td>
<td>Changing Cropping pattern around the Industrial Cities</td>
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<td>Hong Kong and the Pearl River Delta at the Cross Road</td>
<td>Anthony G.O. Yeh, <a href="mailto:hdxugoy@hkcc.hku.hk">hdxugoy@hkcc.hku.hk</a>, Jiang Xu, <a href="mailto:jiangxu@cuhk.edu.hk">jiangxu@cuhk.edu.hk</a>, Donggen Wang, <a href="mailto:dgwang@hkbu.edu.hk">dgwang@hkbu.edu.hk</a></td>
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<td>5</td>
<td>Space-time Behavior and Planning in Urban China</td>
<td>Mei-Po Kwan, <a href="mailto:mpk654@gmail.com">mpk654@gmail.com</a></td>
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Hong Kong and the Pearl River Delta (PRD) is an intensively-studied mega-city region under dramatic transformation. Although on a different development path, they have grown and transformed rapidly through a “front shop back office” model of regional division of labour since the economic reform and open policy of China in 1978. Recently, the fast growth rate in the last three decades has slowed down. Both Hong Kong and the PRD are at the cross road of development. The export-oriented industrial structure of the PRD is no longer competitive with rising labour and land costs. Hong Kong is searching for a new direction of development with the changing economic structure in the PRD and also the Hong Kong-China relationship. There is a need to examine what is happening in the region. Failure to do this means a loss to contemplate its on-going restructuring and the socio-spatial consequences. There is also a need to re-think the theoretical (re)construction to better contour the new urban and regional dynamics that is currently unfolding in the Hong Kong-PRD region.

This session invites papers to examine the changing physical, economic, social, and political environment of Hong Kong and the Pearl River Delta at this important crossroad of development. Topics might include, but not limited to the changes of physical and environmental systems; urban and regional development; theorization of complexity in forming new spaces/places; economic restructuring and its impacts; and the redefined Hong Kong-PRD relationship.

China is experiencing tremendous social and economic transformation. Meanwhile great changes have taken place in urban space and individual daily life. The space-time behavior approach provides a unique perspective for understanding the complex relationships between human activity and urban environments in space and time. It has become an
|   | Yanwei Chai  
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<td><a href="mailto:chyw@pku.edu.cn">chyw@pku.edu.cn</a></td>
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<td>influential methodology in Chinese urban geography. As a human-oriented approach, the space-time behavior approach is widely applied to urban planning and public policy. Since the exploration is more and more diverse, how to build the pattern of urban studies and planning based on behavior in China has become the primary problem to be solved. In organizing this symposium, we seek contributions that advance new conceptual and analytical perspectives about Chinese cities. We welcome papers that are focus on how the individual daily life unfold in space-time and how to apply it to urban planning during the transition period.</td>
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| 6 | Rethinking Urban Transformations from the Perspective of Geography in an Urban Era  
|---|---|
|   | Peter Macrotullio  
|   | peter.marcotullio@hunter.cuny.edu |
|   | Xiangzheng Deng  
|   | dengxz.ccap@gmail.com |
|   | The major changes are taking place in cities across the globe, and these changes are likely to continue to increase over the coming decades. Most of the changes occur in smaller towns and cities that are undergoing rapid growth and transformation, including development into major urban areas in very short spans of time. Such cities play a fundamental role in shaping patterns of growth, innovation and resilience which have impacts in complex ways on the wellbeing of urban dwellers and wider regional economies and environment. Urban transformations are the source of potential solutions for harnessing economic and environmental change for societal progress. We propose this session and invite international scholars on urban studies with diverse background, especially from the perspective of geography, to address the urban transformation in an urban era. The major topics of this proposed session include (but not limited to) the following:  
|   | • Urban system and hierarchies for greater diversity and livability  
|   | • Regional difference/similarities and development pathways of global urbanization processes  
<p>|   | • Infrastructure and spatial planning for building low carbon cities  |</p>
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<th>Session Number</th>
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| 7             | Developmental Dilemma in the Third World Cities                      | Ravi Shekhar anjjag@gmail.com  
Anjana Mathur Jagmohan dr.anjanaeog@gmail.com | Third world cities today are undergoing rapid transformation. Urban sprawl is eating up the greens, the farm lands and the food producing areas in the most unplanned manner at pace unprecedented till now. Bombardment of developmental schemes, transport network and information technology have aided the urban uses overtaking the rural landuses and ways of life. Although accompanied by economic and social prosperity, urban land uses in rural belts are raising serious concerns about their sustainability and viability. There is an urgent need to delve into the need and the limits till which urban land use should be allowed in rural areas, the urgency of change, the environmental consequences of such changes. A way has to be found so that the green concerns do not overshadow the pace of economic development. The topics which might be included in the session are  
- Urban spaces in the Developing World  
- Green cities  
- Solar cities  
- Lessons from the past for future developments  
- Planned cities – case studies  
- Technology and cities  
- Gendered urban spaces  
- Smart cities- viability and need in the Third World  
- Cities for the new generation |
| 8 | New Technology and Sustainable City Development | Ton Dietz<br>dietzaj@ascleiden.nl<br>Li Qiu<br>qiuli@hnu.edu.cn | With the new technology development, cities’ sustainable development face new opportunities, including big-data utilization Knowledge Integrating and Sharing, environmental communication, sustainable design, practical cases and their principles, etc.. All of these new requirement and questions are worthy to be explored into new theory framework in sustainable studies. This session will focus on multidisciplinary communication and development. The first topic is deducted from a 4-year action research supported IGU with the name of OURSUS project. |
| 9 | Urban Climate and urban planning | Sascha Henninger<br>sascha.henninger@ru.uni-kl.de<br>Martin Rumberg<br>martin.rumberg@ru.uni-kl.de | 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.

| 10 | Urbanization, global environment change and city sustainability | Wuyi Wang
wangwy@igsnrr.ac.cn
Min Liu
mliu@geo.ecnu.edu.cn | Various of environmental issues have been concentrated in urban areas because of human activities and global change, affecting city sustainable development. The aim of this session will focus on exhibiting latest outcomes from the changing urban environment in the world, including theory and methodology, understanding physical, human and social interaction and affects, and seeking urban sustainable management pathway in the future. The main contents would include as follows:
(1) low-carbon cities and climate change; urban environment and disaster process simulation, prevention and risk assessment; urban public safety, emergency management and urban governance;
(2) ecological city and urban sustainable development; urban environmental pollution and human health;
(3) the evolution of urban humanity - nature compound systems; analysis and effects of |
Urban and regional planning; Land use and urban environments; Demographic change and migration; Risk and vulnerability analysis and urban safety; Urban Transport Geography: Transitions to Sustainable Mobility.

People pursuing a greater mobility in the urban transport. However, the increased mobility may also mean a greater burden on the environment, such as air pollution, noise, and climate change. The concept of sustainable urban mobility has been widely accepted and spread internationally. How to realize the transition to sustainable mobility has become a hot topic for both developed cities and developing cities.

Technological change may be very helpful for urban sustainable mobility. But to achieve sustainable urban mobility also requires transitions in planning methods, policy strategies and institutional arrangements. These critical elements vary greatly between regions. When cities around the world try to achieve sustainable mobility, it is important to adjust the measures and policies according to the geographic context. With this in mind, this session focuses on the issues related to transition to sustainable urban mobility.

Topics of interest include, but are not limited to:
- The relationship between urban environment, liveability and transport.
- Land use and transport modelling towards a better environment.
- Transport plans and policies for sustainable mobility at local, regional and national levels.

Fengjun Jin
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Teqi Dai
daiteqi@bnu.edu.cn
Efficient and affordable sustainable urban mobility for the developing world.
Planning for non-motorized transportation

| 16 | Land System Dynamics and Regional Sustainable Development | Chunyang He  
|     |                                                           | hcy@bnu.edu.cn  
|     | Peijun Shi                                               | spj@bnu.edu.cn  
|     |                                                           |  
|     | Regarded as an abbreviated term for the coupled socio-environmental terrestrial system that includes land use, land cover and ecosystems, land system is the nexus of crucial societal and environmental challenges and opportunities to address food security, access to water, livelihoods, land degradation, biodiversity loss, and climate change. Climate change and human activities like urbanization and industrialization are posing a number of serious challenges to the land system sustainability in both developing and developed countries around the world. Meeting these challenges requires knowledge from, and provides new opportunities for, modern geography. The goal of this session is to promote the theoretical development and practical applications of the land system study and develop solutions for regional sustainable development. Key topics include:  
|     | (1) Detecting and quantifying land system dynamics;     |  
|     | (2) Modeling land system dynamics in an urbanizing and telecoupling world; |  
|     | (3) Assessing impacts of land use change on ecosystem services and human wellbeing; |  
|     | (4) Designing and managing land system for regional sustainable development |  
|     | We will invite scientists who conduct research in different parts of the world to provide their perspectives and case studies about the state of science and practice of land system dynamics and regional sustainable development. |  
|     | Key words: Land system detection, land system modeling, land sustainability assessment, ecosystem services, human wellbeing, regional sustainable development |  

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| 1   | Special session on Interactions Between Geomorphic Processes and Human Activities and Geographical Aspects in Geoarchaeology - Sponsored by the IAG | Xiaoping Yang
   Eric Fouache | Interactions between geomorphic processes and human activities in the landscapes have profound impacts on the entire Earth system. Research on geomorphology and its interactions with human activities has progressed rapidly in recent years, with significant new studies of aeolian, fluvial, lacustrine and glacial processes and their interactions in various climate zones being conducted worldwide. This session will address the geomorphic, climatic and hydrologic (including surface and ground waters) processes shaping geomorphic systems, landforms and human adaptations in various regions, rates and causes of landscape change, and the effects of such change on regional and global environment systems. Both natural and human aspects of this change and the complex linkages between them in combination of remote sensing and GIS technics will also be discussed. Papers reporting new research are warmly invited. |
| 2   | 3rd International Conference on Future Mountain Development - Organized by Institute of Mountain Hazards and Environment, CAS | Peng Cui
   pengcui@imde.ac.cn | The first and second International Conference on Mountain Environment and Development (ICMED) was held in 2002 and 2012. In order to enhance academic exchanges on mountain environment and development, discuss the development direction in the future, and continues the series of ICMED, Institute of Mountain Hazards and Environment, Chinese Academy of Sciences, will hold the third ICMED on August 21-25, 2015 in Beijing, China. The workshop will focus on the theme of "Mountain development facing to the future". Topics of interest in the workshop include, but are not limited to:
(1) Mountain security – disaster mitigation and prevention
(2) Mountain ecology – service function
(3) Mountain environment- harmony between human and nature
(4) Mountain development – livelihood and settlement |
| 3 | Symposium on Comparative Study of Danxia Landform Between Different Countries - Organized by Red Beds and Danxia Geomorphology Working Group of IAG World Heritage Protection Committee of Danxia Landform | Hua Peng [eesph@mail.sysu.edu.cn](mailto:eesph@mail.sysu.edu.cn)  Piotr Migon [pmigon@yahoo.com](mailto:pmigon@yahoo.com) | Danxia landform began first in China, and Academic research of Danxia landform is mainly in China, fundament and applied research achievement have attracted worldwide attention. As the research, application, and management of Danxia landform world heritage and global geopark progressed, some new problems has arisen:  - Danxia landform have a wide distribution  - The contri...  - The comparison of micro landform in Danxia landform in different climatic region  - The training and education of professionals who are Danxia landform literate |
| 4 | Inheritance and Innovation of Geography: Young Scholars in Action - 1. Global Change and Geographic Research 2. Environment Ecological and Climate Change 3. the Harmonious Development of Man-land Relationship – Organized by IGSNRR,CAS | Quansheng Ge [geqs@igsnrr.ac.cn](mailto:geqs@igsnrr.ac.cn)  Burak Guneralp [bguneralp@tamu.edu](mailto:bguneralp@tamu.edu)  Xiangzheng Deng [dengxz.ccap@igsnrr.ac.cn](mailto:dengxz.ccap@igsnrr.ac.cn) | Topic:  Global change and geographic research, environment ecological and climate change, the harmonious development of man-land relationship  Aim:  Enhance the inheritance and innovation of geography, encourage the youth geographic talents, strengthen the academic communication between geographers, provide academic discussion platform for young geographers, improve the excellent young technological workers’ understanding of the development of global high-tech, incite the bold exploration and innovation, strive to reaching the global advanced level in geographic field. |
| 5 | Round Table on Arctic - Organized by Institute of Geography, RAS | Maria Ananicheva  
maria_anan@rambler.ru | Arkadiy A. Tishkov  
tishkov@biodat.ru | Climate change has become an important problem in the Arctic in the past decades. Damage of the infrastructure on thawing permafrost, the formation of spring ice jams, invasions of new species from the South, transfer to new agricultural crops require development of adaptation strategies, especially on the local level. If no measures are undertaken, then climate change may create a threat to existence of the peoples of the North, especially in combination with socio-economic tensions. There are also new opportunities. Arctic warming is generally beneficial for maritime economic activities, including shipping and hydrocarbon exploration on the shelf. Sustained development of the Arctic and the globe depends on decisions founded on science monitoring and integrated assessments. The effectiveness of national research in the Arctic can be significantly improved through international cooperation. No organization can achieve its goals in the Arctic without |
efficient coordination of actions and cooperative resource development with other stakeholders and partners. The existing shortage of resources for continuous observations and, as a consequence, lack of adequate information, is a serious obstacle for sustainable development of the North, as well as for the efficiency of adaptation of the region to changes in the environment. International cooperation should form the major strategy for the development of Arctic activities.

For the IGU community the main tasks to enhance international cooperation in the Arctic are the follows:

- establishment of an IGU the inter-comission and inter-task force “Arctic research cooperation group” which was discussed during the Moscow Round Table on cooperation in Arctic held 19 of August 2015.
- to enhance science cooperation between environmental and socio-economic geographers, and between IGU and the other international organizations in the Arctic;
- support for the development of a national strategies for the harmonization of international scientific cooperation in the Arctic;
- development of dialogue between universities/research institutes and business/industries to support fundraising for the international studies in the Arctic;
- support, in cooperation with Association of Polar Early Career Scientists (APECS), for young scientist involvement in Arctic research, including training young Arctic researchers through grants and special projects, expeditions and conferences;
- consideration of the EU-PolarNet as an Integrated European Polar Research Program that is co-designed to include all relevant stakeholders and international partners;
- establishment of cooperation between IGU and International Arctic Science Committee (IASC) and between IGU and the Arctic Council’s working groups, especially Arctic Monitoring and Assessment Program (AMAP), Conservation of Arctic Flora and Fauna (CAFF), and Sustainable Development Working Group (SDWG);
- consideration of the International Research Initiative in the Russian Arctic (ISIRA), which is Advisory Group of IASC, as an important instrument of cooperation in the Russian Arctic;
- facilitating coordination with other relevant regional monitoring programs, e.g. Sustaining Arctic Observation Networks (SAON), Circumpolar Biodiversity Monitoring Program (CBMP), etc.;
- informing the general public of various countries on important international projects and other issues related to the Arctic environment.

**Expected participants:**
from the Russian scientific community, international organizations and foreign institutions, decision-makers

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<th>Forum on Area Development and Policy - Sponsored by the RSA</th>
<th>Weidong Liu</th>
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<th>Forum on Development of Geography and Geographical Societies of Asia</th>
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<th>The International Dean/Chair’s Forum on Geography Education -</th>
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<td><a href="mailto:liulin2@mail.sysu.edu.cn">liulin2@mail.sysu.edu.cn</a></td>
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Globalization and global consensus is one of the main themes of 33rd International Geographical Congress. Internationalization of geography education can play a key role in promoting global consensus. To accelerate the development of geography and facilitate
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<th>Organized by School of Geography and Planning, Sun Yat-sen University</th>
<th>Sarah Witham Bednarz</th>
<th>communication and cooperation among scholars and professionals of geography worldwide, this forum will focus on internalization of geography education. This forum is hosted by School of Geography and Planning, Sun Yat-sen University, located in Guangzhou, China. The School is originated from Department of Geography, established in 1929 as one of the oldest geography departments in China. It has recently become International School of Geography, as part of a new internationalization initiative of the Ministry of Education and State Foreign Expert Bureau of China. The goal of the School is to explore a mechanism for making geography education in China more inline with that of the international mainstream. All current and former deans/chairs of geography schools/departments and anyone who is interested in geography education are cordially invited to participate in this forum.</th>
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<td>Forum organized by Xinjiang Institute of Ecology and Geography, CAS</td>
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<td>Public Lecture (1.5 h) organized by International Journal of Urban and Regional Research (IJURR)</td>
<td>Shenjing He <a href="mailto:sjhe@hku.hk">sjhe@hku.hk</a></td>
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<td>Special Session on W.K. Clifford’s Geometric Algebra and Geographical Information Science: Development and Applications (GAGIS) - Organized by Department</td>
<td>Yuan Linwang <a href="mailto:09142@njnu.edu.cn">09142@njnu.edu.cn</a></td>
<td>The international symposium will be held in Nanjing, China during Aug 25-26, 2016 at the Nanjing Normal University. The topic of the conference is the current state and future directions about application of geometric algebra in the geographical information science. The discussion of the data modelling, computation technologies and software-related applications are welcomed. Welcome you to participate the International Conference, we look forward to meeting you and talking to you in Nanjing during 2016.</td>
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<td>of Geography, Nanjing Normal University</td>
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