

Track 1

Transforming human settlements

**Co-rapporteurs: Malgorzata Hanzl,
Ahmed Sangaré & Peter Robinson**

Cities arise out of man's social needs, they are often described as an embodiment of collective art and techniques (Lewis Mumford, 1970). They reveal in time; layers of material heritage overlap, while physical structures preserve values and habits until their replacement with new, more contemporary ones. The constant process of transformations stemming from many reasons, factors which influence them include changing societal needs, life style, migrations, economic development, climate adjustments, political decisions, military conflicts and many more. Current interest in the ways how cities change, in the processes which are behind and in the possibilities to influence the ongoing changes, gave way to the popularity of this topic. Our record clearly shows how relevant the understanding of urban transformations is for urban planners. The track contains the overall number of 32 presentations from 14 countries, selected from the initial record number of 88 abstracts submitted to this track's topic. They will bring us the current depiction of manifold processes going on in cities all over the world. Brought under the common umbrella of urban transformations, the topics range from cities' growth, through different approaches to heritage, public spaces and transportation, including municipalities and planners' efforts to make them more sustainable.

The track is organised into six sessions, their specific topics contributing to the bigger picture of processes going on in urban areas nowadays:

Session 1: Rural transformations, fringe, sprawl

In the era of progressing urbanisation, when the numbers of urban dwellers grow rapidly along with growing of urban areas, the transformations taking place in the areas surrounding major urban centres focus our attention.

Starting with problems of planning in the scale of the region and agglomeration in Kazakhstan, presenters in this session discuss numerous case studies of transformations taking place in the edge zones of cities in locations as diverse as Thailand, China, South Africa, Nigeria and Ivory Coast. Each situation faces its own limitations, which follow local political

situation and specific local conditions. Problems as distant as the integration of the former gated communities in the sprawl areas in Thailand, the rural settlements evolution in urban fringe during the rapid process of urbanisation in China, or issues facing inhabitants of urban fringes in Delta State Nigeria, in South Africa, or in Ivory Coast, all require looking for answers to essential societal problems. They need multidimensional planning, which would joint together concerted efforts at various levels of governance, and appropriate organisation framework gathering authorities, local communities, enterprises and citizens. All papers point at some of the main weaknesses of public policies, indicate which elements should be altered or improved.

Session 2: Morphology, rehabilitation

Changes in lifestyles and local cultures strongly influence the design solutions and construction methods; the morphology of housing estates and urban cores providing the most clear evidence to this theses. On this background the attitude towards cultural heritage represents a specific case study. The role of the architectural heritage in the current development of urban areas cannot be overestimated. Material settings preserve values and meanings of our ancestors, they maintain communal identity and bring back its past, attracting visitors and providing a notion of continuity. The heritage sites undergo multiple transformations, usually they need to adjust to the changing lifestyles.

This session presenters discuss values of sites representing locations as dispersed as Thailand, Nigeria, China, Turkey and Poland. The successful urban management and appropriate policies remain key factor when dealing with the immediate problems. In the longer perspective the transformation background needs to be understood better, in order to get more sustainable and efficient outcomes. Four heritage sites' case studies, addressed by our presenters, show various aspects of reuse of the historical structures and give recommendations to the rehabilitation strategies. In the Turkish presentation the question arises, whether the political correctness and hospitality should make us accept changes to our

heritage, which testifies our own past. Re-approaching the rationale behind transformation processes, what should be the wisdom of future use and re-use of densely built urban cores?

Session 3: Walking, running, soft transportation, public space

Public spaces provide settings for urban activities, their transportation role remaining just one of them. They serve as scene of public gatherings, their role becoming then strongly political. The social functions of streets and squares, the unfolding of interpersonal contacts must be undoubtedly preceded with presence of people, who walk, spend time, hang around. All these functions require proper settings. The situation understood as a scene of everyday life or uncommon events carries meaning which completes the picture with hints on appropriate behaviour. This semantics happens to go far beyond the functional role, sometimes it reveals past events or conveys specific atmosphere.

The keynote paper in this session introduces the requirements imposed by the essential societal problem which is the ageing population. Elderly people need settings adjusted to their needs. The changing society means also diversification and quest for the healthy life styles. In order to eliminate essential health problems stemming from obesity the need to accommodate new habits and needs should be recognised, including people fascinated with sports such as running. By the same token, cities need to provide convenient milieu for people with disabilities, letting them use opportunities it offers on their own. Finally the last presentation in this session addresses using public space for political demonstrations.

Session 4: Transportation and sustainable infrastructure

Carefully selected, site-specific sustainable infrastructure is called for, both in African cities and all over the world. Still in the developing countries, the opportunity to leapfrog the obsolete trajectories of development and use the newest technologies and methods remains available. This way accruing benefits unavailable elsewhere may occur possible much faster and much more efficiently. Among sustainable infrastructure, transportation takes prominent place. It enhances development, enables fast urban growth and creates favourable milieu for urbanisation. Multimodal, properly shaped transportation models enhance economic viability.

The session starts with a keynote talk, introducing broader topic of building sustainable infrastructure in two locations in South Africa, to further pass to examination of policies, management strategies and

outcomes of sustainable transportation development in this country. The authors, representing both theory and practice of urban planning, successfully join these two fields, this way providing convincing evidence for shifting towards more sustainable and efficient solutions.

Session 5: Building sustainable cities

Sustainability remaining one of the key concepts in contemporary urban planning research and practice for years already, it still requires proper understanding and what's more important proper implementation strategies.

Collected together under the common umbrella of sustainable development, the presentations in this session address variegated societal challenges in the quest for solutions, 'which would satisfy current needs without disturbing resources belonging to our heirs'. Coming from several dispersed locations, including Mumbai in India, Lagos in Nigeria, China, Belgium and Brazil, authors discuss topics viable from the point of view of ecology, economics, community development and enhancement of public life. The changes started by, both, public government and private developers, give us the opportunity to understand the agency behind and to look for the better strategies for future.

Session 6: Transforming African cities

South African society goes through a period of intensive transformations as the content of this session clearly shows. The changes of life styles, the development of brand new social groups, progressing diversification, globalisation and internationalisation, all these find their reflection in urban life and as a consequence in transforming of the urban structures.

Starting with the keynote talk which tries to explain reasons behind transformations, which had enormous impact on local cultures and also severe ecological consequences. Understanding the reasons is in this case crucial to finding the solutions for future. Further presentations refer to various aspects of planning in the changing social and political situation, including legislation framework, economic conditions, environmental impact and other aspects specific for the local situation.

In all, Track One demonstrates that transformations of urban settlements remain inseparably linked with societal transformations, and the role of planning in these processes still needs to be redefined.

Session 1: Rural transformations, fringe, sprawl

Madina JUNUSSOVA, University of Central Asia, Almaty, Kazakhstan

Planning economic development of city and region: strategic assumptions of the state versus local capacities

The paper aims to present immediate outcomes from the research on planning roles of the local governments in Kazakhstan. The national government pushes urbanisation by assigning new roles to certain cities. The local governments struggle to promote economic development under the pressure of growing urban-rural disparities.

Siwaporn KLINMALAI, Thammasat University, Pathumthani, Thailand

The adaptation of former gated communities in urban sprawl of Bangkok metropolitan area, Thailand

A gated community development has been developed in the Bangkok Metropolitan Area for 50 years. The physical elements have been adapted and transformed according to the residents and socio-economic situation. The categories of adaptation will reveal the relevant factors of changes.

Xiaoxiao DENG, Shanghai Tongji Urban planning & Design institute, Shanghai, China; Xiao ZHANG, Jiangsu Institution of Urban Planning and Design, Nanjing, China

Spatial evolution of rural settlements in urban fringe of Shanghai metropolitan area

The rural settlements in the Shanghai urban fringe transformed considerably in the past 30 years under the influence of urbanization, presenting characteristics such as heterogenization, gathering, communitization, etc. A comprehensive structure was established to explain it from five aspects, including driving force, interacting path, supporting facility, promotion mechanism and regulatory mechanism.

Ernst DREWES, Mariske VAN ASWEGEN, North-West University, Potchefstroom, South Africa

Rural resilience: transforming mining towns and settlements

The focus of this research is on transforming traditional mining villages as well as surrounding urban settlements into a more resilient urban conurbation. The study area focuses on a rural region in South Africa that has been transformed the past twelve years.

Prince Ike ONYEMENAM, Oluwabukola A. AYANGBILE, Ayobami POPOOLA, Bamiji M. ADELEYE, University of Ibadan, Ibadan, Nigeria

Towards transforming human settlements in urban fringes of delta state, Nigeria

Spatial exclusion is a negative occurrence, universally. It implies a socio-spatial segregation of Urban-Fringe dwellers, given its major hindrance to both functional urban development and the inclusive vision of cities we need. The need towards transforming these fringe areas in Urban-Delta forms the underpinning rationale for this paper.

Ahmed SANGARE, Totem Architects, Abidjan, Ivory Coast

Deprived human settlements in Abidjan: from theory to action

The UIA-CIMES and MOST-UNESCO "Base Plan" method was designed as a light planning tool for intermediate cities that allows them to trigger immediate actions for the improvement of their daily living conditions. This paper describes the implementation of the method in Adjouffou, an illegal settlement south-east of Abidjan.

Session 2: Morphology, rehabilitation

Payap PAKDEELAO, Thammasat University, Pathumthani, Thailand; Korawan RUNGSAWANG, Silpakorn University, Bangkok, Thailand

Four decades of vertical living: a comprehensive analysis of the architectural development of the vertical housing projects by the national housing authority in Bangkok and the greater metropolitan area between 1973 and 2013

A multifaceted architectural and urban analysis of the vertical housing projects created by Thailand's National Housing Authority in the Greater Bangkok Metropolitan Area between 1973 and 2013 examines the projects' design evolutions, the factors that contributed to such changes and the relationships between the inhabitants and their residences.

Bamiji ADELEYE, Mohammed NDANA, Federal University of Technology Minna, Niger, Nigeria; Oluwabukola AYANGBILE; Ayobami POPOOLA, University of Ibadan, Ibadan, Nigeria

Urban transformation: a changing phase of Minna central area

Urban centres in the world are undergoing various facets of changes; these changes are also evident in developing countries. This phenomenon is not different with the central area of Minna, Nigeria. This calls for the SDGs approach that emphasized participation and inclusive planning in the management of Minna central area.

Yuansha NIU, *Jiangsu Institute of Urban Planning and Design, Nanjing, China*

The preservation and sustainable utilization research of Suitang Luoyang ancient city based on the precise historical information re-mapping

Taking Suitang Luoyang city as an example, this paper advances the concept of "information network of space and time in historic cities" and tries to explore the proper methods to guide and manage urban development in the course of urban renewal grounded in holistic historic preservation and development.

Xiao ZHANG, Jinsong JIANG, *Jiangsu Institution of Urban Planning and Design, Nanjing, China*; Xiao DENG, *Tongji Institution of Urban Planning and Design, Shanghai, China*

Regeneration for traditional residential community of water towns south of the Yangtze River based on cultural planning

By applying the cultural planning approach to the regeneration of the traditional residential communities, it establishes a culture-led regeneration framework for water towns south of the Yangtze River and analyses its application in practice by using a case study of historical community regeneration in Guangfu town.

Yizhou ZHAO, *Tsinghua University, Beijing, China*

Micro-transforming: a new strategy for hutong settlement in historic districts. Case study on Yangmeizhu-Xiejie in Beijing

Based on a systematic overview and case study in Yangmeizhu-Xiejie this paper puts forward a new and sustainable strategy of micro-transforming in Hutong settlement, including micro-scope, micro-space and micro-structure, which indicate a significant and valuable methodology both for research and practice.

Zeynep GUNAY, *Istanbul Technical University, Istanbul, Turkey*

Limits to hospitality and right to the city in the ruins of a world heritage site: Suleymaniye in Istanbul historic peninsula

The paper introduces Suleymaniye in the Istanbul Historic Peninsula to discuss spatial and social consequences of renewal policies and to question the ways in which planning can respond to the problematic of hospitality, while highlighting the sociality formed by undesirables including Syrian refugees.

Malgorzata HANZL, *Lodz University of Technology, Łódź, Poland*

The transformation of former Jewish structures in the towns of central Poland – spatial order and its perception

The notion of spatial order influences the perception of urban scape, with culture related meaning directly affecting their acceptance. The current paper presents the case study of sites inhabited in pre-war times by Jews in central Poland, and elaborates on differentiated situations of their reuse, partial alterations or demolitions.

Session 3: Walking, running, soft transportation, public space

Hao WU, Yong CHEN, *Tongji University, Shanghai, China*

Urban design factors associated with perceived assessment in elderly's walking activities: case study of central Shanghai, China

This paper identifies urban design factors which are related to environmental satisfaction assessment and walking attitude among the elderly in Shanghai, China.

Shylet NYAMWANZA, James CHAKWIZIRA, *University of Venda, Thohoyandou, South Africa*

An assessment of infrastructure provisions and services for persons with disability at University of Venda and its surroundings

The paper assesses infrastructure and service provisions for persons with disabilities at tertiary institutions. The findings revealed a general lack of awareness regarding disability issues in building designs and the street environment. Therefore the recommendations focus on how the universal design concept can be incorporated effectively in tertiary institutions.

Ebru KURT, *Istanbul Technical University, Taksim-Istanbul, Turkey*

Transformation of public space in terms of politics and power: the case of Beyazit square

Governments want to create their own power images by using the public spaces we have. While we are losing our existing public spaces, now we need new or alternative ones to come together, meet or try to express ourselves sometimes with supportive discourses or by protesting.

Session 4: Transportation and sustainable infrastructure

Ryan ALEXANDER, Aurecon South Africa (PTY) Ltd, Cape Town, South Africa; Karen SHIPPEY, Provincial Government of the Western Cape, Cape Town, South Africa

Delivering sustainable urban infrastructure – a feasibility study of two Western Cape municipalities

This paper presents the findings of a feasibility study for alternative, sustainable forms of urban infrastructure provision through two Western Cape case studies. It details the selection of sustainable infrastructure options, making the financial case for a different approach to municipal infrastructure compared to the Business As Usual approach.

Geoffrey BICKFORD, South African Cities Network, Johannesburg, South Africa

Transit Oriented Development approaches for developing world cities: some insights based on the South African context

Transit Oriented Development (TOD) remains a concept rooted in formal planning and development approaches. Locating the principled benefits in contexts of large informality, this paper explores potential approaches required for realising TOD outcomes in formal and informal urban contexts found in the developing world by drawing on South African insights.

Sean COOKE, Roger BEHRENS, University of Cape Town, Cape Town, South Africa

Transforming human settlements to support viable public transport in developing cities: results of a public transport corridor operating cost model

Some rapidly growing cities in developing countries are struggling to implement large-scale public transport systems due to unsustainable subsidy levels, despite conventional measures purporting the conduciveness of their urban environments. This study analyses the effects that human settlement characteristics can have on the viability of public transport in this context.

Sisa MABOZA, Passenger Rail Agency of South Africa, Kempton Park, South Africa

Transit oriented development as a tool for transforming negative urban spaces in South African townships

Transit Oriented Development (TOD) is a tool that could be utilised to transform human settlements. This paper focuses on collaboration as a non-negotiable prerequisite for the successful implementation of TOD to transform South African townships from negative urban spaces to great human settlements.

Yuan HAN, Jiangsu Institute of Urban Planning & Design, Nanjing, China

Industrial land redevelopment in rapid urbanization area under “stock development” background: an empirical analysis of a city in the Yangtze River delta, China

This is a study of the industrial land redevelopment under new urban development background in Eastern China. It offers an empirical analysis to describe the change affected by the new trend of ‘stock development’.

Session 5: Building sustainable cities

Amit CHATTERJEE, School of Planning and Architecture, Bhopal, Bhopal, India; Soumendu CHATTERJEE, Presidency University, Kolkata, India; R.N. CHATTOPADHYAY, Indian Institute of Technology, Kharagpur, India

Transforming Mumbai city: removing the bottlenecks to achieve future sustainability

Growth of Mumbai city (population 12.4 million, 2011) has almost saturated and problems such as housing shortage, infrastructure deterioration, environmental degradation, transportation, and scarcity of land resources, income inequalities etc. are prevalent in the city. This calls for redefining the ways of future urban development to achieve sustainability.

Andrea SOUZA CRUZ, Mauro César SANTOS, UFRJ, Rio de Janeiro, Brazil; Adriana Fiorotti CAMPOS, UFES, Vitória, Brazil; Joyce TENÓRIO, UNISUAM, Rio de Janeiro, Brazil

Transforming the urban chaos with environmental recovery: Pedra Branca forest case, Brazil

The study proposes a transformation of urban chaos observed in the region of Pedra Branca forest, with the development of a new mechanism for planning and management involving multi-use and integration between social, environmental and urban spheres, on the suburban area of Rio de Janeiro, Brazil.

Yisha ZHANG, Yifan YU, Tongji University, Shanghai, China

Residential differentiation and socioeconomic reorganization under spatial reconstruction - a case study of the new town plan of new Beichuan, Sichuan, China

The residential differentiation and socioeconomic reorganization in the post-earthquake spatial reconstruction of New Beichuan is analysed in this paper to point out that the design and implementation of the reconstruction plan and settlement policies might contribute a lot to the spatial and social differentiation during the reallocation.

Session 6: Transforming African cities

Tasyam GOVENDER, Nisa MAMMON, NM & Associates, Cape Town, South Africa

The American dream: urban densities in South African cities

South African cities are some of the least dense in the world, more similar to their Western counterparts, than cities in the Global South. This paper investigates the causes and implications of this phenomenon, and argues that in addressing the issue, inspiration must be drawn from the Global South.

Kelebone LEKUNYA, Mark ORANJE, University of Pretoria, Pretoria, South Africa

Exploring the spatial and economic development impacts of the African Growth and Opportunity Act (AGOA) in Lesotho

This paper explores the spatial and economic development impacts of the African Growth and Opportunity Act in the developing nation of Lesotho.

Rajesh MAKAN, Rural Development and Land Reform, Pretoria, South Africa

A new framework for spatial planning and land use management legislation in South Africa

South Africa has inherited a fragmented, unequal and incoherent spatial planning and land use management legislative environment. The task of developing framework legislation towards addressing this challenge has been an intensive and difficult process. The paper shares the process and challenges towards the development of a new legislation framework.

George ONATU, University of Johannesburg, Johannesburg, South Africa

Mixed income housing development model for South Africa: a case of Cosmo city, Johannesburg and Cornubia, Ethekwini

This paper contributes to the conversation by investigating the opportunities and prospects of investing in mixed-income housing development as a new human settlement model for South Africa.

Jakob SCHACKMAR, University of Kaiserslautern, Kaiserslautern, Germany

22 years of post-apartheid urban change in South Africa. Done enough?

The paper discusses the two main development strategies of urbanisation and melting corridors for townships in South Africa. It analyses and evaluates 22 years of projects and initiatives to equalize living conditions among South Africans.

Track 2

Planning activism and social justice

Co-rapporteurs: Brett Calvio, Dorota Kamrowska-Zaluska & Thulisile Ncamsile Mphambukeli

Track Two on 'Social Justice and Planning Activism' presents meaningful insight, research, analysis and ideas on how to obtain the cities and habitats we want. The concepts of planning activism and social justice are made clear in this track from presenters who deliver new philosophical and scientific plateaus of thought on the subject. This track is organized into blocks of prevailing themes: 'Planning and Social Justice,' 'Social Structures,' 'Public Policy and Capacity Building,' 'Economic Justice,' 'Planning Activism' and 'Inclusive Planning,' though individual papers may address more than one theme.

The contemporary planning issues facing the new South Africa and other parts of the world are knowledgeably addressed in these sessions and are relevant not only to former colonial states, but to any country desiring improved social justice, healthier settlements and more natural habitats.

The acts of empowerment and public participation are revealed as key factors for achieving a more inclusive democracy and effective planning process that create the cities and habitats we want. An important dimension of this track is the discussion of balancing and bridging the spatial and personal distances and relationships between traditional and modern cultures in South Africa and beyond. The new South African planning systems are reforming the planning dynamic by integrating layers of traditional culture and leadership with modern culture and democratic leadership. This track however, is not only focused on the South African experience- it presents 23 works that explore and discuss different aspects of social justice and planning activism in over 15 countries, including: Kenya, Sudan, Nigeria, Thailand, Indonesia, Russia, Slovakia, Poland, India, China, Turkey, New Zealand, Sweden, the Netherlands and Serbia.

New approaches to planning with a more inclusive public participation process are discussed as a means to improve social justice, social and personal empowerment and win:win situations for our cities and habitat. This track also presents different socio-economic and design cases of win:win, win:lose and lose:lose scenarios and ideas on how to improve them.

Session 1: 'Planning and social justice', discussing its history, legal framework and politics

This session discusses the relationship between social justice and planning activism. The presenters discuss contemporary legislative actions, social empowerment, public participation, adapting to migration, achieving win:win development and investment, bridging traditional and modern cultures, and developing genuine organizations that promote social empowerment and participation. The first author speaks on issues concerning South Africa describes the evolution of its planning system in the 20th and 21st century and offers policy recommendations for legislative transformation of the system. The second author speaks on urban transportation policies and infrastructure development in Nairobi, Kenya, placing its processes into the social justice context of other developing countries. The third author speaks on the desires of the new generation of Chinese migrant workers, exploring their quality of life issues and the design factors which influence their settlement choices. The fourth authors speak on the challenges and opportunities of integrating traditional leadership in a modern democratic government and offer a critique of the Spatial Planning and Land Use Management Act (SPLUMA) adopted by South Africa in 2013.

Session 2: 'Social structures' and planning for social justice

This session discusses social structures and social systems and how they affect social justice, economic justice, political justice and civil rights. The case studies in this session are from South Africa, Poland, Slovakia, Hungary and Sweden. The first authors speak on a variety of situations related to the role of existing social structures in emerging or established planning systems, addressing the questions of how their cases refer to planning activism and community involvement. The second author speaks on the impact of current and past planning policies and explores the challenges that they pose on planning activism and social justice in South African cities today. The third author speaks on the strategy of revitalizing public spaces within panel building estates and discusses a comparative

analysis of revitalization projects done through participation by its inhabitants in Central and Eastern European countries. The fourth author speaks on the integration of a nomadic and marginalized population in Sweden, showing that projects which provide basic infrastructure can also be used as a tool for the inclusion of slum dwellers into the upgrade planning and implementation process.

Session 3: 'Public policy and capacity building' for social justice and planning

This session discusses challenges that the public sector and the non-governmental organizations (NGO) face when creating and implementing public policy. The session discusses vital components for achieving social justice in planning: human and organizational capacity building, achieving win:win planning scenarios through public participation, inclusivity and integration, and the idea of creating dedicated organizations to help improve settlements and habitat from the bottom-up. The first author speaks on public participation in an 'Integrated Development Plan' (IDP) process, evaluating the capacity of both civil society and civil servants to engage in and jointly design solutions to current socio-economic and design problems. The role of the participatory approach in planning is discussed as a crucial factor in which to develop sound strategies and more responsive strategic development plans. The research discusses legislative and development policy recommendations for a new 'democratic developmental state.' The second author speaks on curriculum development and capacity building for South Africa and introduces a framework tool as a means to confer the necessary competencies and capabilities onto a cross-section of planning stakeholders. The research presents capacity goals in support of an effective implementation of the new land use classification and management system. The third author speaks on the Thai Baan Mankong Secure Housing Programme, a community-driven housing program and discusses the possibility of successfully transferring its ideas into governmental policies in other countries of Southeast Asia. The fourth author speaks on the shifting continuum of spatial patterns between the urban, peri-urban and rural areas in South Africa and stresses the importance of inclusive leadership and a regional planning approach for land use management.

Session 4: 'Economic justice' and its relation to social justice

This session describes the relationship between socio-economics and development projects and discusses a need for integrating social justice, economic opportunity, human rights and equality issues into them. Cases examined present lose:lose, win:lose and win:win socio-economic and design developments.

This session discusses achieving win:win planning scenarios for economic and social justice and how to get around legacy roadblocks to public participation and inclusive planning. This session features presenters from Nigeria, China, Turkey and Poland. The case studies here discuss concerns from their respective countries as well as one concerning African mega-project developments. These papers address the complexities and issues related to economic justice for both green-field development projects and for the transformation of existing urban developments. They describe the role and influence of different stakeholders within these processes. The first author speaks on the transformation and integration of the Makoko community located in the heart of the city of Lagos and within the overall socio-economic system of the city. The research evaluates the policies and strategies of a capital improvement project employed for Lagos towards fighting spatial inequality and integrating a disadvantaged community. The second author speaks on the topic of a revitalization process in the historic district of Dalian, China, showing a model applicable to other inner-cities where historic districts are faced with decline, community stratification and a loss of design heritage. The research employs a statistical analysis of retrieved questionnaires using SPSS software to analyze the problems and challenges as well as their spatial distribution. The third author speaks on recent African mega-project developments, examining the influence of such projects on the place and contrasts these investment approaches with a more comprehensive and sustainable policy approach. The fourth author speaks on a case of Port Alaçati in Izmir, Turkey, discussing this coastal development project as an example of a non-inclusive, top-down planning process. The high-end master-planned project and planning process are evaluated with recommendations for a more inclusive public participation process and policy to sustainably manage the natural habitat and public access to the coast.

Session 5: Planning activism

The session presents new models and new technologies for communicating and organizing activism. This session discusses planning activism and community planning empowerment in countries where the public participation framework is still developing.

It discusses topics of social empowerment, leadership, technology and the art of activism. Case studies come from South Africa, New Zealand, Russia, the Netherlands and Serbia. The presenters here describe projects and activities with social activism and community involvement in planning. The first authors speak on a critical review of top-down models vs. bottom-up approaches in South Africa, providing a comprehensive analysis of the informal settlement upgrading process. They identify barriers-to and

drivers-of effective upgrading models and provide a critical assessment of the existing regulations and planning policies. The research identifies an advantage to bottom-up approaches because participatory and consensus-building techniques can be used to enhance local empowerment and provide a sense of local ownership. The second author speaks on civic leadership in transportation planning, introducing new ad-hoc community planning activism groups voicing their quality of life issues and desires for a more inclusive and participatory planning process to improve mobility in Auckland, New Zealand. The research explores how information technology is influencing planning activism models and how transportation and transit interest groups are forming to change the public transportation planning discussion. It employs the concept of path dependence and development to identify challenges and possible future institutional and policy changes needed for a more inclusive planning capacity. The third author speaks on the role of civil activism as a means of promoting participation in planning and empowerment in Tula, Russia, where the public participation framework and process is still emerging. The fourth author speaks on the possibilities of connectivity for civic engagement in urban planning using smart technology. Initial guidelines are drawn on how to link digital communications between citizens and municipal authorities - helping leaders and urban planners to engage and shape more livable, intelligent cities. The cases in this session are strongly anchored in their own local context, yet they provide strategies and models that can be transferable to cities in other parts of the world.

Session 6: Inclusive planning

The session presents new research and findings for inclusive social policies, urban design and architecture.

It provides a discussion on the best practices for inclusive urban design and architecture, as well as policy considerations with flexibility for change. The presenters in this session report on planning for and from the point view of people in often overlooked demographics, such as children, the elderly, the differently-abled and homemakers. The speakers present various possible solutions to integrate disadvantaged groups into the city by improving the physical accessibility of the public and commercial services to them and focusing on their social empowerment and the inclusion of their social desires into the public realm. The first authors speak about the process of creating and developing a participatory, youth-driven, environmentally sensitive vision of Khartoum by 2030. The research discusses how to involve the young population in envisioning the city. The second author speaks on Kampung Cikini in Central Jakarta, Indonesia, focusing on women’s empowerment and their enterprising home extensions. The research presents a bottom-up planning, urban design and empowerment process and discusses the planning policy tolerances and social considerations needed for high density, urban Kampung. The third author speaks on a case from Vijayawada, India, exploring and evaluating accessibility concerns in public buildings with indexed parameters like safety, comfort, convenience and the environmental barriers encountered by mobility-impaired individuals in the built environment. The research concludes with recommendations for enhanced accessibility at the Inter State Bus Terminal. The fourth authors speak on factors influencing the choice of commercial facilities for the elderly in Shanghai, China. The research uses a survey method and establishes multiple linear regression models to discuss the impact of the multiple factors. The research concludes with proposed measures that can improve the everyday convenience and lifestyle of the elderly traveling to shop and the shop design too!

Session 1: Planning and social justice

Mthokozisi MHLONGO, Zama LONDIWE, City of Umhlathuze Municipality, Umhlathuze, South Africa

A new dawn for the South African planning system

Apartheid legislative and policy framework led to spatial imbalances in many cities in South Africa. Many poor people were moved to the peripheries, far from socio-economic centres. Since spatial segregation is a result of apartheid policies, the solution to address these imbalances heavily relies on the integrated planning legislative framework.

Francisco ACHWOKA, Ben-Gurion University of The Negev, Beersheba, Israel

Transportation issues of cities in developing countries - case study of Nairobi, Kenya

Despite increased expenditures on urban transport systems, current transportation problems in cities within developing countries continue to worsen. Will a shift to an increased reliance on inter-related features of decision making in transportation planning enable cities to achieve the goals of sustainable transport in the long run?

Wan LI, Shuying DAI, Renmin University of China, Beijing, China

The desire of settling in cities of the new generations of Chinese migrant workers

For the new generation of migrant workers in China, the desire for permanent residence in cities is not strong enough. Based on a nationwide investigation in 2014, this study explores some factors and their impact on this desire through a binary logistic model.

Verna NEL, Tony WILLIAMS, Simangu NKOSI, University of the Free State, Bloemfontein, South Africa

A framework for sustainable land use management in rural areas under traditional authority

Limited attention was given in the past to spatial planning and land use management in rural traditional areas, giving rise to unsustainable practices. New legislation seeks to address this, but it also creates challenges. This paper sets out a framework for more sustainable land use management in such rural areas.

Session 2: Social structures

Siyabonga NJEKE, Vishnu GOVENDER, KZN COGTA, Durban, South Africa

The rise of the social elite: a challenge to planning activism and social justice in South African cities

Discussing the disjuncture of the past that is still influential in the present African planning context. Through reflecting and evaluating the impact by the past and current planning policies, the paper explores the challenges posed on planning activism and social justice in South African cities by the rise of the social elitists.

Magdalena WISNIEWSKA, Cracow University of Technology, Kielce, Poland

Citizen participation – a successful strategy in revitalization of panel building estates’ public space or a marketing slogan

The aim of this paper is to attempt an answer whether the idea of citizen participation in the revitalization of panel housing estates, as implemented in many local strategies, is only a buzzword, a marketing slogan used just in theory or it is an actually used tool.

Antje HEYER, HEM-Organisation for vulnerable EU-migrants, Täby, Sweden

Criticising Sweden’s treatment of Europe’s most vulnerable citizens – what can we learn from slum upgrading projects in South Africa when it comes to increasing poverty and informality in Northern Europe?

I discuss Sweden’s treatment of discriminated EU-citizens from Romania and the evictions of their informal camps. Facing this increasing poverty and informality, I question what northern Europe can learn from South African NGOs when it comes to informal settlement upgrading and mobilisation of marginalized groups.

Session 3: Public policy and capacity building

Khethukuthula ZULU, Hibiscus Coast Municipality, Port Shepstone, South Africa

Public participation in IDP, Kwazulu-Natal, South Africa

A developmental local government is a critical part to realise a development-based state that effectively transforms its society to ensure equity and improved living conditions for all of its citizens. To achieve this, local governments need to have a robust participatory process for their IDPS.

James CHAKWIZIRA, Mac MASHIRI, Gwarajena TRD, Pretoria, South Africa; Cecilia NJENGA, Peter NJENGA, Kena Consult Pvt/Ltd, Pretoria, South Africa; Maartin FRIEDRICH, Manna Development Consultancy (Pty) Ltd, Pretoria, South Africa; Rajesh MAKAN, Department of Rural Development & Land Reform, Pretoria, South Africa

Towards a curriculum & capacity development framework in support of a land use classification system in South Africa

Through this work, the Department of Rural Development and Land reform (DRDLR) is seeking to make significant headway into narrowing the current capacity gaps in terms of delivering sustainable land use management practices in South Africa, especially on the local authority level.

Caroline NEWTON, KU Leuven and OVAM, Mechelen, Belgium

The successful transferability of community driven housing programs in South-East Asia and the role of international NGOs

Community driven housing programs that successfully transformed human settlements are often considered as locally embedded, the transferability of their success questioned. We show how ACHR, an Asian NGO, has been the key in successfully introducing the ideas of the Thai Baan Mankong Secure Housing Programme to the region and to Cambodian policy.

Renee Karen HULLEY, Black Balance Projects, South Africa

South African cities: changing spaces

This paper explores the emerging of a new spatial pattern in the province and the extent to which city builders and/or planners are geared towards facilitating and embracing this change. The shifting spatial patterns are also an opportunity to support the spatial transformation agenda that is currently unfolding.

Session 4: Economic justice

Oriyomi AKINYEMI, Wale ALADE, Vistaplan Consulting, Lagos, Nigeria

The socio-economic transformation of Makoko community, Lagos, Nigeria

The study looks at the appropriateness of the policies and strategies of Lagos state government towards social and economic transformation of poor communities and their integration within the overall city system in Nigeria using Makoko, Lagos as case study.

Xiaojun WANG, China Academy of Urban Planning and Design, Beijing, China

Revitalizing a historic district: Dalian Xinglong historic district case study

Many historic districts in China's inner cities are now ghettos for the poor, socially isolated despite their central location. This paper uses Xinglong Historic District in Dalian as a case example to study the community stratification and renovation of a historic district.

Özgün TUTAR, Richard SZERI, Eylem BAL, Dokuz Eylül University, Izmir, Turkey

Neoliberal intervention to the coastal areas: the case study of Port Alaçati, Turkey

The Port Alacati project is an example of direct intervention of capital into coastal areas. Besides, it is aimed to propose and develop solutions by discussing spatial transformation caused by neoliberal urbanization policies on coastal areas, based on the relative acts, planning mechanisms and the actors.

Session 5: Planning activism

Maria Christina GEORGIADOU, Isis NUNEZ FERRERA, Ben FAGAN-WATSON, University of Westminster, London, United Kingdom

A critical review of top-down vs. Bottom-up models for informal settlement upgrading in South Africa

The paper presents a review of top-down vs. bottom-up models for slum upgrading in South Africa (SA), uncovering associated barriers and drivers for community-led approaches. The study is based on a three-year research programme funded by the UK ESRC Newton Fund in collaboration with the SA NRF.

Mikhail MALASHENKO, Higher School of Economics, Tula, Russia

Civil activism as a means of promoting participatory planning: the case of Tula

The paper addresses issues of civil activism as a means of promoting participatory planning in circumstances in which it is otherwise unlikely to be applied, like in those of authoritarian and centralized state system.

Milena IVKOVIC, Blok74 urban gaming | built environment, Rotterdam, Netherlands

Hello city!

Hello City! researches the patterns of communication on urban issues among the digitally active citizens of two different European cities: Rotterdam and Belgrade. The results of the quick-scan give some insights about how to use the energy of connected citizens to create more liveable, intelligent cities.

Session 6: Inclusive planning

Meidesta PITRIA, The University of Tokyo, Chiba, Japan

Housewives empowerment in urban Kampung house extension strategy a case study in Kampung Cikini, central Jakarta, Indonesia

A research looking at the indispensable relation between women empowerment and house extension in dealing with high density in urban Kampong.

Genrong CAO, Jian ZHUO, Tongji University, Shanghai, China

Analysis on influencing factor of the choice on commercial facilities for the elderly going shopping on foot—an empirical study of four typical residential communities in central Shanghai

This paper analyses the influencing factors on choice of commercial facility for the elderly going shopping on foot and proposes measures to improve the convenience of the elderly using commercial facilities.

Track 3

Envisaging planning theory and practice for the next decades

**Co-rapporteurs: Milena Ivkovic,
Nuin-Tara Key & Mark Oranje**

Summary

Urbanisation is taking place at an unprecedented scale worldwide. The pressure to find answers to the many challenges caused by rapid urbanisation is rising against the existing legacy of planning theories and practices. In Track 3, twenty-four papers from fourteen countries contributed to the topic of how planning should look in the decades to come, the majority coming from a continent facing some of the greatest urban pressures – Africa. The track is divided into 4 sections, each one dealing with different aspects of planning and practice for the future: (1) how to manage innovation and change, (2) how to implement the next generation of environmental planning, (3) what are the post-colonial planning challenges, and (4) what are the tools for integrated planning.

Session 1: Managing innovation and change

Session 1 opens by exploring the critical question of how to manage innovation and change in the urban and regional planning context. As urban communities around the globe are facing compounding and complex issues that stress existing economic, environmental, and social systems many practitioners are looking for new and innovative approaches to dealing with rapidly changing and growing urban environments.

First, we start with a critical role that evaluation metrics play in understanding innovation. The role of conflict management in the context of ever-changing physical, social and economic spaces is presented in by a case study from Italy that explores how global economic pressures manifest in local conflicts around land use and form; the paper explores how planning can innovate beyond this challenge by adopting a multi-centered, flexible and heterogeneous approach to change management. And in Brazil, “Through a Rhizomatic Process of Planning” continues on this theme of change management by exploring how self-organization — as opposed to elite, top-down hierarchical planning—can allow for spontaneous, self-organized innovations in land use to emerge. “Mis-Romanticism of hidden spaces and gentrification” explores the global challenge of gentrification and proposes an innovative theory that major urban centers

are being transformed by specific social and economic groups according to their desired “lifestyle” rather than according to urban planning theory. The “hipster” aesthetic, which is the dominant aesthetic of the social group leading urban transformations, is merely an appropriation of existing “hidden” spaces and does not reflect a innovative approach to new urban form and transformation.

Looking to the future, “In Search for New Urban Planning Education and Research Formulas” explores how the practice of planning, in an effort to maintain relevance, needs to constantly innovate as we look to the ever-increasing complexity of the urban context. By exploring three research and educational urban planning projects in Poland, this comparative case study highlights the importance of cross-cultural and international cooperation as core elements of planning education. Future planners will be tasked with making decisions that affect our collective future, while also responding to the local impacts of complex problems. To equip future planners with the skills needed to manage this complex dynamic, planning education and research needs to adopt innovative approaches to filling the gap between theory and practice. In the context of China’s rapid urbanisation process of the last decades, the practice of implementation evaluation has been largely overlooked. “Evaluating the Implementation Performance of Conservation Planning for Historic Township: Case of Guangfu Town, Suzhou, China” establishes a framework for implementation evaluation.

Session 2: Environmental planning

This session presents a cross-section of project and planning samples that integrate multi-sector approaches to environmental planning and design. Specifically looking at the challenges that rapid urbanisation place on environmental systems, this session explores how an integrated approach to planning that includes environmental considerations improves economic and social outcomes.

Starting in the Netherlands, “Using the Natural Ecosystem to Achieve Urban Societal Ambitions” explores how including environmental considerations

in an integrated urban strategy improves social and economic contexts, as well as reduces urban vulnerability. "Planning for Sustainable Communities is Planning for Green Spaces" explores, through a design assessment, how green and open spaces are under valued in South Africa and the need to increase their priority when designing high-value urban environments.

The question of how you integrate environmental planning into rapidly-changing and high-value urban and regional contexts is presented in "Sustainability and the Revolution in Urban Planning". Recognizing the high value that natural and environmental planning plays in developing resilient and livable urban spaces, as outlined by the cases in the Netherlands and South Africa, the case studies presented from the United Arab Emirates and Malawi, explore the critical role that technical and analytical mythologies play in implementing environmental considerations in complex, fast-pace planning contexts. Given the current pace of urban development, and the rise of technology, there is an opportunity to utilize systems that simplify basic environmental indicators in a way that keeps pace with the rapid urban development process.

Sessions 3 and 4: Post-colonial planning challenges

The papers in the Sessions 3 and 4 deal with the dynamic challenges of post-colonial planning by exploring the questions of how to develop the necessary localized knowledge and capacity, and how to change existing theory and practice to keep up with rapid urbanisation. The term often referred to in these papers is the "African Renaissance" – a new, broad societal, cultural and economic movement based on embracing and re-discovering African value systems and African identity.

In the "Visualizing neo-mercantile planning theory for Africa in the twenty-first century" the authors plead for developing a new planning and spatial theory, based on the principles of the traditional African market towns, and inspired by the neo-mercantile ideology. By taking a critical view on neo-liberal planning models, the authors conclude that moving toward neo-mercantile principles and re-invention of market towns will benefit the current African state of urbanisation.

By analyzing the shortcomings of the past planning legislation in Nigeria, "Bi-conceptual planning modeling in tackling a rural threshold challenges in Nigeria" suggests a new model to address the issues of sustainable development of the Ibadan region. The region is characterized by a dispersed structure of villages and small towns, and the paper proposes to formulate a new, bi-conceptual planning model allows for the regrouping of settlements. In this way, the

exchange of goods, provision of services and necessary infrastructural investments can be realised more efficiently.

ring the principles of African Renaissance, "'Normal' Informal Living Spaces in Low-Income Human Settlements in South Africa" explains the "normal of the informal" in South African settlements. It argues that Western-style planning approach to standardized housing has disrupted the traditional South-African way of living, and that embracing and understanding informality can be a better approach to the needs of people actually living in informal settlements.

"Spatial Planning In Nairobi: Beyond the Post-Colonial Paradigm?" also takes a critical view of the Western planning methods of the past and compares the results of those methods with the current major planning forces coming from the East (China and Japan). The conclusion is pointing out to the fact that neither of these two approaches can actually address entirely the complexity of issues in Nairobi, and suggests that local knowledge development, not outside intervention, is essential to facing localized post-colonial challenges.

The gap between theory and practice is a central component of the current challenges of the African planning reality. "Bridging the Gap Between Planning Theory and Practice in Africa: Towards a Theoretical Solution" looks at the African city as an interface (or an intermediary) between planning theory and practice, and measures the level of "acceptance" of new planning theories in several (10 total) African cases.

Finally, one of the biggest post-colonial planning challenges is how to include the complex structure of many stakeholders in the planning process, many of which were deliberately excluded in the past. "A Reflection on the Changing Faces of Urban Land Use Planning in Ghana" explains the positive changes in the planning and legislative systems in Ghana, aimed at improving land-use planning. In its conclusions, the paper raises the questions of how to recognize stakeholders and include them in the planning process.

That the issue of participation within current planning theories can be a tricky one is illustrated in "What Theory Explains the Tale of Two Cities?: Community Engagement in Urban Planning in New South Wales, Australia". Analyzing the ability (or inability) of two neighborhoods in Sidney's to influence developments in their immediate surroundings, the author builds a strong case for defining a planning theory that takes into account the rift between "rich and poor", and moves towards more an inclusive and just planning system.

Sessions 5 and 6: Tools for integrated planning

Sessions 5 and 6 dig deeper into the practical issues of implementing so-called “integrated planning” theories, and explores tools to realise this planning goal in countries where legislative frameworks for integrated planning is present.

“Investigating the Lack of Integration Within District Municipalities: Effects of SPLUMA on Integration” observes the effects of the recent South-African SPLUMA Act (which enables integrated urban planning across several spatial levels and administrative bodies) and asks the question “will the new act work?”. Pursuing the answers to this question, the paper proposes a method to test the level of integration, starting with the integration of spatial planning and transportation.

The implementation of the SPLUMA Act, in order to fulfill its promise of making resilient and inclusive cities, is the subject of the paper “Growing the Seed of Spatial Transformation: An Overview of the Capacity Building and Training Dimensions of SPLUMA (2013), South Africa”. The authors call for further action in capacity building and training. Analysis of efforts to date shows that a great deal of work still lies ahead.

As a practical tool for implementing SPLUMA, “Transforming the Inner City of Durban – A new Approach to the Preparation of a Local Area Plan for the Inner City of Durban, eThekweni Municipality” proposes the so-called “enquiry by design” method. Illustrating efforts in the eThekweni Municipality of Durban, the authors present their model of design-based approach to community stakeholders. In this way, the many problems of the neighbourhood are addressed through direct dialogue with the citizens and organisations working in the area, ensuring that any further plans for the transformation of the neighbourhood will be positively embedded with local community input.

The importance of a design-based approach to urban planning is also the theme of the paper “A paradigm Shift from Resources Economy to Knowledge Economy: The Case of Urban Development in Qatar”. The Gulf-state of Qatar and its capital, Doha, are determined to move from resources-based to knowledge-based economy, and therefore are exploring different spatial models (some of them based on traditional structures) in order to create an environment in which a knowledge-based economy and its professionals will flourish.

Session 6 continues with the exploration of practical tools that support integrated planning, with each case study highlighting an important planning issue for the coming decades.

Urban regeneration is an increasingly challenging issue, especially given the rapid rate of urban growth over the last few decades. The increasing complexity of urban regeneration leaves planning practitioners with the challenge of needing to identify on-the-ground redevelopment opportunities that optimize spatial patterns, functionality and efficiency, and the existing social conceptions and culture of place. The case study from Kolkata, “Understanding variables for contextual re-generation of Urban Areas - Case study of Kolkata, India” shares a quantitative methodology that integrates all of these complex and divergent needs.

Knowledge transfer and development, as well as overcoming the inertia of local experts, are the subjects of the paper “UN-Habitat’s Rapid Planning Studio: A Case Study of Integrated Planning for City Extensions in Africa”. By developing a specific workshop methodology, (“Rapid Planning Studios”) the urban planning professionals of UN Habitat are continuously training local authorities in Sub-Saharan Africa on how to approach the problems of urban development in their countries.

Lastly, our current global urbanisation trajectory is causing ecological instability, both locally and globally. Given that urban planning and design have a significant impact on the structure, process, and dynamics of the urban landscape there is tremendous opportunity to better integrate ecological sustainability and urban form. To achieve this integration, in practical terms, “A focus on Biodiversity and Ecosystem Services Redefines Urban Planning and Design” presents a conceptual landscape ecology framework — one that integrates green infrastructure, biodiversity and ecosystem services.

Session 1: Managing innovation and change

Jingyi ZHU, Tongji University, Shanghai, China; Ming TONG, College of Architecture and Urban Planning, Shanghai, China

Heterotopia and equilibrium of contest urban space-an investigation of an accommodation-assimilation mechanism

The paper deals with applying the concept of heterotopia to the contemporary city as a mechanism of handling changes in spatial features and social relations. Heterotopia works through accommodation and assimilation of changing elements to help maintain the coherence of urban physical and social space.

Nilton TORRES, USP - University of Sao Paulo, Sao Paulo, Brazil

Through a Rhizomatic process of planning

This paper analyses the contemporary planning in Brazil, focusing the action of informal networks of agents seeking to promote their own social life. Based on Deleuze-Guattari's vision, it understands planning as a multiple, relational and mixed social process for dealing with the contingencies of a dynamic and complex world.

Jacob KALMAKOFF, UN Habitat, Nairobi, Kenya

Mis-romanticism of hidden spaces and gentrification

Urbanism projects tend to glorify certain spatial typologies, specifically when they are seen to breed community and foster unexpected interaction between people. Yet consequentially the aesthetic of many of these spaces is uniform throughout the world, inspiring questions of what roles these spaces have in gentrification and as planned environments.

Hanna OBRACHT-PRONDZYNSKA, Dorota KAMROWSKA-ZALUSKA, Gdansk University of Technology, Gdansk, Poland

In search for new urban planning education and research formulas

This paper shows research and educational urban planning projects based on international and multicultural cooperation including innovative elements to conduct research on the built environment. Their common aim is to search for a new perspective on city development and challenge results from changing conditions.

Xiao ZHANG, Jiangsu Institution of Urban Planning and Design, Nanjing, China; Jinsong JIANG, Yinlong LIANG, China

Evaluating the implementation performance of historical and cultural town planning: case of Guangfu town

Focusing on whether the plans are implemented and effective in historical and cultural towns, this research establishes a framework of planning performance evaluation by analyzing factors, criteria and methods through a case study of Guangfu town.

Session 2: Environmental planning

Lena NIEL, Maaikje BLAUW, Deltares, Utrecht, Netherlands

Using the natural ecosystem to achieve urban societal ambitions

The (negative) effects of climate change call for a change in the urban planning profession. In this research we have investigated a new planning approach. It studies the metabolism of the urban ecosystem and specially focuses on the interaction between the urban layer and the natural soil-water layer.

Zhan GOOSEN, North West University, Eshowe, South Africa; Elizelle Juane CILLIERS, North West University, Potchefstroom, South Africa

Planning for sustainable communities is planning for green spaces

Literature proofs the benefits and need for green spaces within urban environments. Regrettably the planning, development and implementation of these spaces do not realize in many instances, due to a lack of municipal priorities driven by the urgent need to provide housing.

Stephen GOLDIE, Abu Dhabi Department of Municipal Affairs, Al Ain, United Arab Emirates

Sustainability and the revolution in urban planning

The key paradigm for sustainable planning is the 3-circle 'Triple Bottom Line Model' but it provides no guidance as to implementation. To improve on this model, two important innovations are developed that could turn the diagram into the centrepiece of an urban planning model suited to the 21st Century.

Tjark GALL, Urban Framework, Lilongwe, Malawi

Tackling urban challenges in Sub-Saharan Africa through indicator-based sustainability assessment

This paper examines the scientific background and practical possibilities of indicator-based sustainability assessment in urban Sub-Saharan Africa. The proposed methods act as a platform for site and project selections as well as an evaluation tool for existing approaches of different stakeholders. It will be exemplary tested on projects in Malawi.

Session 3: Post-colonial planning challenges

Claudia Luisa Teresa LOGGIA, Judith OJO-AROMOKUDU, University of KwaZulu-Natal, Durban, South Africa; Maria Christina GEORGIADOU, University of Westminster, London, United Kingdom

Normal informal living spaces in South African low income human settlements

The intended “normality” is compared to the indigenous normality in informal settlements. The study suggests the incorporation of indigenous normality in policy and upgrading programs led by the community.

Keziah MWANG'A, Gran Sasso Science Institute, L'Aquila, Italy

Spatial planning in Nairobi: beyond the post-colonial paradigm?

The inheritance of Global North developments and planning approaches is accused of creating and reinforcing social-spatial segregation in African cities. Changing global politics is attracting other players in African development such as China and Japan. This paper seeks to understand the nature of development by these new players.

Session 4: Post-colonial planning challenges

Awais PIRACHA, Western Sydney University, Minchinbury, Australia

What explains the tale of two cities: community engagement in urban planning in New South Wales, Australia

Planning reforms in New South Wales, Australia have resulted in weakening of community engagement. Independent scholars have used neoliberal planning theory to explain the reforms. However, theoretical underpinnings of effective community action by the affluent in the East and resignation to fate by the poor in West have not been explored.

Umar JIMOH, Philip IGHOSOYIVWI, University of Ibadan, Ibadan, Nigeria

Bi-conceptual planning modelling in tackling a rural threshold challenges in Nigeria

Rural development involves a set of designed policies aimed at raising the pattern of living of the rural population. Problems still persist despite research efforts targeted at solving them due to single theoretical approaches. This study is designed to tackle the rural threshold challenges in Nigeria using a bi-conceptual planning model.

Eden Tekpor GBECKOR-KOVE, Ho Municipal Assembly, Ho, Ghana

A reflection on the changing faces of urban land use planning in Ghana

The master-planning practices of town planning officers in practice do not consider the opinion of people leaving in informal/unauthorized settlements. The new three tier system is envisaged to incorporate them in the urban land use planning system under the new land use law.

Session 5: Tools for integrated planning

Jessica PAGE, Carel SCHOEMAN, North West University, Potchefstroom, South Africa

Investigating the lack of integration within district municipalities: effects of Spluma on integration

There is a need to address the lack of integration within municipalities, policies and legislation. An investigation is done into the effect and promise of the recent SPLUMA regulations on municipalities and their current capacity, as well as, the integration between spatial planning and transportation instruments within District Municipalities.

Catherine DALE, The Planning Initiative, Durban, South Africa; Joanne LEES, Lees & Short Associated Architects and LSF Designco Lab (Pty) Ltd, Durban, South Africa; Paul WIJGERS, Urban Solutions, Durban, South Africa

Transforming the shape of Durban – a local area plan for the inner city of Durban, EtheKwini municipality

This paper explores the preparation of a Local Area Plan for the Inner City of Durban and considers the contribution that it could make to the restructuring of the City and an alternate approach to spatial planning that has the potential to contribute to a more relevant city structure.

James CHAKWIZIRA, Cecilia NJENGA, Peter NJENGA, Kena Consult Pvt/Ltd, Pretoria, South Africa; Mac MASHIRI, Gwarajena TRD, Pretoria, South Africa; Buyisiwe ZUMA, Rajesh MAKAN, Department of Rural Development & Land Reform, Pretoria, South Africa; Maartin FRIEDRICH, Manna Development Consultancy (Pty) Ltd, Pretoria, South Africa

Growing the seed of spatial transformation: an overview of the capacity building and training dimensions of Spluma (2013), South Africa

SPLUMA (2013) can be viewed as both an instrument and approach serving the purpose of being “an interface in promoting alignment and integration within the existing policy and legislative framework guiding planning and development” in South Africa (Schoeman, 2015: 57).

Ali ALRAOUF, Urban Planning Department Qatar, Doha, Qatar

A paradigm shift from resources economy to knowledge economy: the case of urban development in Qatar

The paper articulates a solid model to be followed by Gulf cities seeking a transformational change similar to Doha. A change from resources and industrial economies to a creative and knowledge economy. A transformation is presented, which has been seen as inevitable change for Gulf cities in a rapidly approaching post-carbon paradigm.

Session 6: Tools for integrated planning

Solanki GHOSH, Ronita BARDHAN, Indian Institute of Technology, Bombay, Mumbai, India

Understanding variables for contextual re-generation of urban areas - case study of Kolkata, India

The Aim of this study is to see how spatial pattern and functional distribution of the city affect its cognitive image. This paper presents a conceptual framework to quantify the variables and arrive at contextual planning policies and guidelines. The results of this study would help planners formulate appropriate policies for urban regeneration.

Benjamin SCHEERBARTH, Thomas STELLMACH, Gianluca CRISPI, UN-Habitat, Nairobi, Kenya

Un-Habitat's rapid planning studio: transdisciplinary planning for periods of rapid urban growth

Current urbanisation rates in the developing world outpace municipal ability to effectively plan for the expected population growth. This case study reflects on key challenges of contemporary planning practice as identified through conducting UN-Habitat's Rapid Planning Studio, a workshop module to formulate and implement city extension plans.

Tessa JOUBERT, North-West University, Pretoria, South Africa

A focus on biodiversity and ecosystem services redefines urban planning and design

Urban planning and design have a significant impact on the structure, processes and dynamics of the urban landscape. Sustainable urban development requires the application of ecological and landscape principles to create a green infrastructure. A conceptual landscape ecological framework will be presented that supports biodiversity and ecosystem services.

Track 4

Urban planning and policy making in times of uncertainty, fragility and insecurity

**Co-rapporteurs: Jacob Babarinde,
Elizabeth Reynolds & Geci Karuri-Sebina**

How far can you look into the future of your city and what do you see? If you can, now think back to 30 years ago – what was your world like? For better or worse how has it changed? Could you have foreseen how different the world around you would be? Track four considers the role of urban planning as a tool for managing positive change in places with an uncertain future. Yet also acknowledges that, from the futuristic concepts of American architect Harvey Corbett to Le Corbusier's Utopian vision for Chandigarh, there is often a mismatch between the aspirations of planning and the reality. We ask what tools could be used to mitigate uncertainty and how to avoid planning becoming part of the problem, rather than a solution. This introductory report aims to provide a background to topics we will be discussing in track 4.

Uncertainty

{Not able to be relied on; not known or definite}

In our work as urban planners we map our aspirations for places and people, without knowing for certain the future context in which they will exist. In his book *The Art of the Long View*, Futurist Peter Schwartz encourages the use of scenarios to 'rehearse the future', so that we might better prepare for what might lay ahead. In *Urban futures: anticipating a world of cities* (foresight, Volume 18 Issue 5, 2016) Future-oriented Technology Analysis (FTA) is promoted as a more evolved process to help planners and policymakers understand complexity, anticipate impending changes, and begin engaging more robustly with future scenarios.

100 Resilient Cities was founded in New York by the Rockefeller Foundation and aims to help cities around the world become more resilient to physical, social and economic challenges including the affects of climate change. Cities are encouraged to join the network and nominate a chief Resilience Officer to mitigate against shocks such as natural disasters, as well as other stresses that weaken the fabric of a city on a day to day or cyclical basis. To learn more about Durban's Resilience Challenge see: <http://www.100resilientcities.org/cities/entry/durbans-resilience-challenge>

In the United Kingdom, the future Cities Catapult brings aims to help innovators from a range of professions to turn ideas into working prototypes that can be tested in real urban settings. Through their Cities Lab based in London, the catapult is focused on three core themes: promoting healthy cities, building resilience in urban infrastructure, and designing strategies to help cities adopt and finance smarter technologies.

Fragility

{Easily destroyed or threatened}

In the case of some cities and regions, baseline conditions that inform plan making are difficult to sustain - fragile to changes in politics, ecology and human conflict. In 2015 ISOCARP arranged an Urban Planning Advisory Team to visit the West Bank and Gaza Strip where the team and all those they engaged with were asked to look beyond the present situation and provide a spatial vision for a future state of Palestine. Ours was by no means the first attempt at planning for a sustainable urban future, with spatial land use plans in place for each of the five governorates in the Gaza Strip, along with a National Spatial Strategy, and detailed studies on infrastructure, commercial and residential development. In addition to the challenges of plan making, plan implementation is harder still, with the Gaza Strip afflicted by three wars in the past seven years, and trying to survive under a suffocating blockade. In the face of these very significant obstacles, we asked people to consider how they hoped Gaza would look, feel and function at an unspecified time in the future. To understand more about this spatial visioning exercise, the third in a series of magazines will be launched at the ISOCARP congress.

Insecurity

{Liable to change for the worse; not permanent or settled}

To ensure that urban planning frameworks are sufficiently robust to withstand shocks from natural disasters and other serious but infrequent events, it is

important that risk assessment form part of the planning process. Urban threat assessments generally consider the probability, consequence and severity of a threat manifesting itself in an urban environment. The threats could stem from natural, accidental, criminal, terrorist or state sponsored events, and once identified could have an improved chance of being mitigated.

In the United Arab Emirates, the Abu Dhabi government has introduced a Safety and Security Planning Manual (SSPM) to support the Plan Capital 2030: Urban Structure Framework Plan. Eight key principles are key to the Manual, namely: Access and Connectivity; Structure and Spatial Layout; Ownership; Surveillance; Activity; Physical Security; Public Image; and Adaptability. In the case study of the Saadiyat Island Cultural District project this meant including a safety and security specialist as part of the multi-disciplinary team in the earliest stages of planning; creating a remote logistics facility; realigning a canal to create a natural barrier; and integrating pedestrian screening facilities.

In South Africa the Integrated Urban Development Framework (IUDF) aims to steer urban growth towards a sustainable growth model of compact, connected and coordinated cities and towns. The IUDF includes commentary on urban resilience and safety, identifying that: 'the pervasive fear of violence and crime is one of the greatest barriers to urban residents, especially women and girls, being able to take full advantage of the economic, social and cultural opportunities offered by cities'. With respect to climate change it is said that a whole-of-government and all-of-society approach is needed to emphasise the linkages between mitigation and adaptation, as well as the multiple economic, social and environmental benefits of urban climate action.

Over three days, our track will feature presentations by urban academics and practitioners from 13 countries, on subjects ranging from assessment of socio-economic vulnerability to climate action planning. We hope that the track will provide participants with insightful research, critical debate, and practical tools to help plan the cities we need.

Session 1-3: Master-strategic-futuristic planning and the property development process

Jacob BABARINDE, Papua New Guinea University of Technology, Lae, Papua New Guinea

Application of a holistic land development model for city sustainability: a flux of messy situations extending the frontiers of planning theory

The paper argues that existing planning theories are inadequate for analysing challenges faced by cities pursuing sustainable development goals and protection from insecurity due to terror attacks, crimes and uncertainty. Therefore, a new planning theory, hinged on planners' deserved control of a holistic land development process, is needed.

Laura SCHATZ, Western Sydney University, Penrith, Australia

When planning becomes litigation: comparative case studies of the ideologies of appeal decisions in New South Wales and Ontario

This research examines the ideological conflicts inherent in progressing planning disputes into the legal realm, where the public interest nature of planning encounters the traditional tendency of courts to protect private property rights. I examine this conflict using 'existing user rights' cases in Ontario and New South Wales.

Miranda SCHUT, The Spontaneous City International, London, United Kingdom

The future of urban living – planning for the unknown in Amsterdam

The Future of Urban Living is an applied research project with a focus on Amsterdam's metropolitan region. The paper will focus on the research questions and principles, its theoretical framework and the methodology to be used.

Caroline BOS, UNStudio, Amsterdam, Netherlands; Justyna KARAKIEWICZ, The University of Melbourne, Melbourne, Australia

Masterplanning as trouble shooting. Networks of professionals replace planning authorities in the planning of Arnhem Centraal

Case study of the masterplan of central Arnhem realized between 1996-2016. Shifting public policies and public-private partnerships were utilized to try to fill the void caused by global and local economic crises as well as the decline of both policy-related and professional services retained by national and local authorities.

Ito AKPAN, University of Uyo, Uyo, Nigeria

Effects of changing land uses on intra-city roads in Calabar municipality, Cross River State, Nigeria

The rapid rate of changing land uses in cities has reached alarming proportions. Changes in both road usage as well as the physical network of intra-city roads are traceable to changes in the use of land. These changes have profound effects in the cities we live in today.

Michele MELCHIORRI, Domodossola, Italy

Intergovernmental organizations and human settlements; how the world polity is shaping the debate on cities

These years cities emerge in the agenda of intergovernmental organisations like ever before. It is meaningful to reflect on the tendencies of this discussion and investigate on the future being shaped for planning for the cities we want.

Eloise ROUSSEAU, Riaan VAN EEDEN, City of Cape Town, Cape Town, South Africa

Growing small businesses in South African townships: how planning tools can facilitate economic growth

The paper explores how planning tools can be used to help grow small businesses located in South African townships. It reflects on a pilot project that demonstrates the financial benefits and costs associated with formalization from the perspective of the small business owner.

Herbert MUSOGA, Rose MUSYOKA, National Land Commission, Nairobi, Kenya

Opportunities and challenges for urban planning under Kenya's new constitutional dispensation

This paper highlights the opportunities for urban planning presented under the new constitutional dispensation for Kenya and discusses the transitional challenges in actualizing the envisaged urban planning framework. The paper is based on a review of the constitution, and legislation against the practice of urban planning at the county level.

Peter Njeru NIUE, Joshua Munge MANAGE, University of Nairobi, Nairobi, Kenya

An investigation into the application of improved building technology in office blocks to mitigate the impact of terrorist attacks in Nairobi

Following the various terrorist attacks in Kenyan buildings, the paper seeks to find out the preparedness of the built environment professionals in designing robust buildings, especially offices.

Joanna PRIGARA, Gdansk, Poland

Strategical planning for uncertain times

Strategic planning is a powerful tool for predicting possible paths of development. Not only does it base on a detailed analysis of the current state but it also provides with predictive scenarios for the future. This is why it can be helpful in times of uncertainty.

Muhammed Ziya PAKÖZ, Ahmet GÜN, Istanbul Technical University, Istanbul, Turkey

The transformation and reorganization of cities in South-Eastern Turkey: an examination from the safety perspective

This study addresses the transformation and reorganization of cities, especially the south-eastern cities of Turkey, which are going to be planned and designed after demolitions during the conflict, in terms of the safety perspective.

Session 4: Climate change, sustainability and infrastructure services

Hildegard Edith ROHR, IIAConsulting; Water Research Commission, Pretoria, South Africa

Spatial resilience, adapting to water sensitive planning in South Africa

The emphasis on inter-disciplinary research approach towards planning for water sustainability has been highlighted in many policies, plans and legislations. This article illustrates how spatial planning in terms of the Spatial Planning and Land use Management Act No. 16 of 2013 can contribute to the practice of water sensitive planning.

Zhejiang CAO, Tsinghua University, Beijing, China

The framework of resolving water issue in spatial planning in Netherlands

This paper firstly reviews spatial planning policies in terms of water planning and design in the Netherlands both in history and at present. Secondly, it probes into three major spatial water planning programmes and explains how they are implemented and embedded within the existing spatial planning framework.

Mswankile ZITHUTHA, South Africa

Designing rainwater harvesting cities

The South African cities are designed to channel water from the rooftop through pipes to water drainage. As water becomes scarcer there is a need to change this general approach of design and start designing buildings that accommodate rainwater harvesting.

Alwaka Kent MUKOYA, Nairobi City Water and Sewerage Company, Nairobi, Kenya

Climate change, water and wastewater, risks and uncertainties: case study of Kenya cities and towns

Kenya is classified among the water-stressed countries. This notwithstanding; the country is highly vulnerable to the impact of climate change, particularly its main economic sectors.

Session 5-6: Spatial analysis and environmental risk modeling

Jublee MAZUMDAR, Saikat Kumar PAUL, Indian Institute of Technology, Kharagpur, India

Determining the social and spatial vulnerability of a place from potential natural hazards

We cannot stop the occurrences of natural hazards on Earth, it can only be reduced to a large extent. Nevertheless, biophysical factors play a vital role in determining the vulnerability of a place. Social attributes escalate the vulnerability exponentially; hence it needs to be explored.

Jeremy GIBBERD, CSIR, Pretoria, South Africa - combined presentations

Sustainable goods and services

What are sustainable goods and services? How can the built environment be configured to support the achievement of sustainable goods and services?

Sustainable waste streams

What are sustainable waste streams? What is required in urban built environments to achieve these?

Basudatta SARKAR, National Institute of Technology Rourkela, Rourkela, India; Haimanti BANERJI, Joy SEN, Indian Institute of Technology Kharagpur, Kharagpur, India

Assessment of socio-economic vulnerability using select indicators

The paper tries to explain different degrees of socio-economic vulnerability through the nature and degree of interdependence of key socio-economic and demographic vulnerability components.

Pablo PESSOA, Gabriel SALLES REGO, Raiza GOMES FRAGA, Tainá LABREA FERREIRA, University of Brasília, Brasília, Brazil

The contribution of risk relations to urban planning practices: rethinking floods and other natural disasters of anthropic synergy

Based on interpretative tools from epistemology of risks, an adjustment was made on the typological categories set traditionally used to understand the processes involved on urban flooding risk. Underlined risk relations highlight the structural connections among social and environmental vulnerabilities with the magnitude of natural hazards.

Track 5

Intelligent cities for people

**Co-rapporteurs: Awais Piracha,
Jianxiang Huang & Aurobindo Ogra**

This theme tackles the definition of smart cities where technology and access to data can be exploited for an unprecedented awareness and control of our built environment. Papers in this track grapple with the question, “while technology flourishes, have the human priorities of these cities been appropriately defined”?

The cities of the world are facing a number of new and difficult challenges often at scales unimagined before. To begin with fast pace of population and economic growth and the sheer number of people migrating to cities in search of better lives is unprecedented. That leads to very high demand for housing, employment, transport and leisure. In addition, due to very hyper connectedness people are highly aware of what exists in other parts of the world. The city dwellers thus expect facilities of the highest standard that other places have managed to provide. Intelligent cities try to address those expectations and demands.

Intelligent cities are not only about ICT manipulation. These are the cities that are good at learning and finding innovative and novel solutions for their problems. From the protective walls of the ancient cities to the dykes of Netherlands cities have been coming up with clever and daring solutions. Intelligent cities is thus a broad field. The value of this concept lies in the potential it offers in rethinking interventions by city managers and city dwellers typically using the latest technologies to ensure the interventions are clever, out of the box measures.

Intelligent Cities, a year-long initiative of the National Building Museum supported by partners TIME and IBM, and funded by The Rockefeller Foundation, explored the intersection of information technology and urban design to understand where we are, where we want to be, and how to get there. It contains a broad range of themes under the umbrella intelligent cities title. Time presented a number of different examples of what were deemed as intelligent city in action. That includes the cases where ICTs were cleverly used to achieve improvements in health, transport, clean energy, jobs, walkability, identity, convenience, leisure and security.

The distinction between smart and intelligent cities is not clear. They are overlapping concepts and at times are used as synonyms. The discussions in this track will inevitably discuss this fundamental question. The following sub-themes have been identified from the papers selected for presentation in this track.

Session 1: Intelligent cities of emerging economies

Emerging economies such as China, India, Southeast Asia and Sub-Saharan Africa have wholeheartedly embraced the Intelligent/smart city concepts. The notion is attractive for cities in these countries as it offers them the potential to leapfrog on the path to development. It is also attractive because the traditional (unintelligent) measures cannot cope with the needs of sheer numbers of existing and incoming citizens. However, there seems to be some evidence of the excessive use/misuse of the intelligent/smart cities concept. In some cases, the prefix intelligent/smart is simply added to existing and routine measures and developments as a catchy title/phrase.

Session 2: Intelligent cities of developed countries

Some cities in the developed countries have been highly successful in tapping intelligence for resolving their problems and attracting young, energetic and creative people. Other cities are trying to learn from the successful example such as Boston. Some scholars in the developed countries are sceptical about the blind following of the intelligent cities concept. They suspect, in some cases, gizmos are not what people require.

Session 3: Planning with big data / complex systems

Use of big data such as mobile phone, smart travel card and other large data in planning is fast emerging a very promising area of study. A number of papers in this track present case studies of use of big data is studying and improving various planning related issues such as land use, housing provision, mega projects, commercial activities and more.

Session 4: Smart transport / infrastructure

A number of case studies in this track explore how intelligence/smartness can assist in improving mobility. The topics in this area range from smart mobility, promotion of non-motorised transport, to integration of the airports to provision of health services. Health, access and equity are recurring and underlying themes in this sub area.

Session 5: Participatory smart planning

A number urban planning scholars grapple with the following questions. Who can participate and who benefits from all the intelligence introduced in the city planning endeavours? Are citizens able to participate in consultations related to smart planning? Are their voices being heard? Do planners and policy makers even care if quest for smartness does not engage with the marginalized? Is smartness leaving sections of society even further behind?

Session 6: Smart energy in cities

Intelligent systems are enabling cities across the world to make use of complex, dispersed and renewable sources of power. Smart electricity grids and meters allow households to feed electricity produced from rooftop solar systems back into the grid. They also enable the peak and off-peak electricity charging leading to dampening of demand for peak times and thus avoiding the need to build/run peak load power plants. Smart energy systems are enabling isolated developing country cities to maximize the utility of off-national-grid local energy generation including that from the renewables. A number of scholars from both developed and the developing country cities will present their experiences in this area.

Session 1: Intelligent cities of emerging economies

Xingping WANG, Southeast University, Nanjing, China; Kai ZHU, Zhejiang University of Technology, Hangzhou, China

Innovative space of metropolitan area: types, patterns and evolution

We present refined and systematic development process of innovative space and analyse the distribution pattern and interrelation characteristics of it.

Qingqing WANG, Nanjing, China

The research of spatial form in Xinjiang vernacular settlement focuses on water resources

This article focuses on the water resources in vernacular settlements of China's typical arid region. It studies the impact of location, spatial form, functional layout and other aspects caused by water resources. The paper summarizes the conventional wisdom in settlement-construction and makes reference to recommendations in further settlement construction of arid regions.

Xiaojun WANG, China Academy of Urban Planning and Design, Beijing, China

Eco-smart research parks: Shanxi Science and Technology City case study

China recently started building its third generation of research parks: eco-smart research parks. This paper analyses and compares the key characteristics of the three generations and takes Shanxi Science and Technology City as the research object, to study the connected eco-smart strategies for research parks.

Naniek WIDAYATI, Tarumanagara University, Jakarta, Indonesia

Old city restoration of Jakarta, Indonesia

The sub-district of Glodok is part of a to-be embryo of Jakarta city located between the Jakarta West and North. The emerging problem is an unfortunate image of traffic jams, etc. Becoming the Manhattan of Asia needs presidential regulation stipulating restoration.

Session 2: Intelligent cities of developed countries

David LUDLOW, UWE, Bristol, United Kingdom

Intelligent city planning – meeting people's requirements?

Innovation, both societal and ICT driven provides major opportunity to realise the full potentials of bottom-up engagement in integrated urban planning leveraging collaborative ICT technologies for responsive urban planning. However, intelligent city planning meeting people's requirements must mobilize ecosystems of research actors and policy makers to support research driven strategies.

Bruno MONARDO, Leonardo BIANCHI, Nicole DEL RE, Andrea SIMONE, Almona TANI, Sapienza University of Rome, Roma, Italy

Smart specialization strategies for supporting the Europe 2020 vision

These reflections aim to highlight the crucial challenge that European Regions face applying the 'Smart Specialization Strategy' principles for pursuing the virtuous implementation of the Europe 2020 Agenda. The different cultural style of the 'US model' represents a significant lesson.

Chelsea ERWEE, University of Kwa-Zulu Natal, Durban, South Africa

Rebranding Umhlanga as an intelligent city

The shift towards the intelligent city model, as a response to traditional city challenges, embodies inter-connectedness between sustainability and efficiency in order to create a conducive environment for all age groups and diversities to prosper together in a more liveable urban habitat.

Jianxiang HUANG, The University of Hong Kong, Hong Kong, Hongkong; Lishuai LI, Department of System Engineering and Engineering Management, the City University, Hong Kong, China

Pleasant urban experiences: re-examining place-making theories using social media data in high-density cities

Creating enjoyable places are of growing importance for post-industrial cities. This paper re-examined classic urban design theories using geo-located social media data in Hong Kong, a high-density cities in Asia. The purpose is to identify what attributes of the built environment correlate with pleasant experiences.

Session 3: Planning with Big Data / complex systems

Justyna KARAKIEWICZ, The University of Melbourne, Melbourne, Australia; Caroline BOS, UNStudio and University of Melbourne, Amsterdam, Netherlands

Ever smarter, cities that learn: the application of complex adaptive systems theory to urban development

This paper examines the challenge of designing and implementing cities that can be incrementally smarter, that are able to learn. We address the question of what it means for a city to be smart.

Ning ZHAO, Jianjun WANG, Shoujia ZHU, Guangzhou Urban Planning & Design Survey Research Institute, Guangzhou, China

An empirical study on mega-city commercial spaces distribution characteristics: exploratory big-data analysis on Guangzhou, China

The distribution of the modern service industry becomes one of the important factors influencing the layout of a metropolis. This paper, taking Guangzhou as an example, explores its layout characteristics and general laws by statistical and spatial analysis based on big-data mining from Baidu.

Zhenyu WANG, Jiangsu Institute of Urban Planning and Design, Nanjing, China; Pengpeng ZHOU, Nanjing Institute of Technology, Nanjing, China

The role big data plays in the construction of smart city: a case study in Shanghai

Smart city construction is a good solution to Chinese city-problems in the context of globalization. The paper introduces how Big Data influences the construction of a Smart City through the case study of Shanghai.

Zhejiang CAO, Tsinghua University, Beijing, China

The interaction mechanism between urban planning, land supply and tertiary industry spatial structure in Hong Kong

This paper established the socio-economic model to examine the interaction mechanism between urban planning, land supply and tertiary industrial spatial structure in Hong Kong. It analyses the city's spatial economic and concentration structure through GIS and judges the relationships between the aforementioned three key elements, based on pre-built model and assumptions.

Prasanth VARUGHESE CHARAKUNNEL, Kiranjith CHULLIPARAMPIL, Anuradha CHAKRABARTI, Drishti Center for Urban Research, India

The urban conundrum in defining smartness; citizen or technology: a critique into the Indian idea of smart city

The research deciphers the contextual and non-contextual notions of smartness and the idea of smart-cities based on the 100 smart-cities project initiated by the Government of India. It brings out the inherent contradictions within the smart city proposals in the realization of urban commons and the right to city.

Session 4: Smart transport / infrastructure

Giovanni SERGI, University of Genoa, Senigallia, Italy

Intelligent cities for local growth, smart city in Italy: the case of the Municipality of Genoa

In 2016, 158 municipalities in Italy like Genoa have worked on the issue of Smart City and prepared 1800 projects using a holistic approach, which considers the city as a system that is able to support and spread innovation.

Ntsieni Colin KHWATHISI, James CHAKWIZIRA, Peter BIKAM, University of Venda, Thohoyandou, South Africa

Smart mobility: challenges of integrating intelligent transport systems for enhanced transportation systems performance

Achieving smart mobility through intelligent transport systems still faces paramount challenges. The paper investigates the challenges of integrating intelligent transport systems for enhanced transportation performance through the review of case studies from developed and developing countries.

Oluwafemi OJO, Eric MBAUKAAN, Federal University of Technology, Minna, Nigeria; Paul AJAYI, University of The Witwatersrand, Johannesburg, South Africa

Urban core health vulnerability: assessment of carbon monoxide level in Bida, Niger State

The study aims at determining the urban core dwellers vulnerability for Carbon Monoxide (CO) along major roads. The study employs a portable meter to determine the spatial variation of CO and residents related health challenges.

Robynne HANSMANN, Durban University of Technology, Durban, South Africa

How integrated is the airport in the production of space?

The study explores the movement of goods through airports in order to understand the relationship between flows and the production of space, and specifically how integration occurs between modalities and land uses within the context of the Dube Trade Port case study.

Session 5: Participatory smart planning

John VAN DEN HOF, Saxion University of Applied Sciences, Enschede, Netherlands

Digitalization and planning empowerment

An important precondition for planning empowerment is the availability of reliable data. Partners of Saxion UAS anticipate on the coming Environmental and Planning Act by experimenting in three LivingLabs with new methods for sharing data to enhance involvement of civil society with planning policy at a local scale.

Nancy ODENDAAL, University of Cape Town, Cape Town, South Africa

How smart are we about smart cities? Exploring opportunities for empowering alternatives

The relationship between technology and planning is under new exploration due to the current publicity on smart cities. This paper suggests alternative conceptions that are not infrastructure-led.

Guy VLOEBERGH, OMGEVING and University ANTWERP, Antwerp, Belgium; Philippe VAN WESENBEECK, Department Spatial Planning, Ghent, Belgium

Inspire and be inspired: an innovative, citizen-centered design of the spatial structural vision 'Room for Ghent'

Ghent (300.000 inhabitants) is creating a Spatial Structural Vision 2030 for the city. This focuses on a 'citizen-centred design approach' to create opportunities, practices for citizens, (social) entrepreneurs and policy makers. The idea is to inspire each other by sharing, collecting and testing ideas, experiments and concept for the future.

Tathagata CHATTERJI, School of Planning and Architecture Vijayawada, Vijayawada, India; Souvanic ROY, Indian Institute of Engineering Science and Technology, Shibpur, India

Participatory planning in the age of smart cities in India

This paper reviews India's new urban agenda to develop 100 Smart Cities from the angle of participatory planning - to understand whether this new urban agenda would promote more inclusionary form of development through dissemination of information or further perpetuate social polarisation through a technocratic planning.

Alberto CENDOYA, University of Navarra, Pamplona, Spain

Digital slums - understanding the importance of the digital connectivity to transform African slums: the case of Cape Town

61.7% of urbanites in Africa are slum dwellers, and this number is set to increase. This paper aims to show the most efficient way to combine traditional urban policies with digital and technological ones to ensure agile and durable solutions for slum dwellers.

Session 6: Smart energy in cities

Ntombenhle NDWANDWE, GSC Holdings Pty, Johannesburg, South Africa

Green energy for African cities - the changing landscape of our cities

The rise of energy supply in response to the demand of electricity has become one of the corner stone in tackling urbanization and rural migration within the urban development paradigm.

Somayeh TAHERI MOOSAVI, University of Manchester, Manchester, United Kingdom

Distributed ledger technologies (Blockchain) in urban energy systems, the case study of smart plugs in the UK

This paper seeks to explore the potential opportunities and challenges involved in the implication of smart plugs to address fuel poverty in the UK. The block chain technology attempts to change the interaction between the UK government and the citizens and improve trust, transparency, governance, disintermediation, and security in the system.

Garfield Wayne HUNTER, Guanzeng ZHANG, Lan WANG, Tongji University, Shanghai, China; Daniele VETTORATO, European Academy of Bolzano, Bolzano, Italy

Urban energy planning of human settlements: taxonomy, frameworks, and tools to guide planning evaluation and support decision-making

This paper aims to propose a framework to develop insights into the complexity of urban energy planning. This will sensitise stakeholders on current trends, challenges and transitional theoretical and analytical frameworks and models, tools and mechanisms, which will ensure a seamless integration to achieve a sustainable future.

Adriano BISELLO, Daniele VETTORATO, EURAC Research, Bolzano, Italy

Verifying and weighting citizens' priorities for energy refurbished dwellings

What characteristics are driving the citizens' decision to buy an energy refurbished dwelling? Are the monetary savings in energy bills really the most relevant benefit? Are citizens' priorities appropriately addressed by designers? To answer these, this study applies the AHP methodology to a local real estate market in Europe.

Track 6

Planning for an interlinked and integrated rural-urban development

**Co-rapporteurs: Lorraine Gonzales,
Tathagata Chatterji & James Chakwizira**

This subtheme explores the changing conceptualization of the urban rural divide and the possibility of new forms of urbanity and rural existence. Should or can rural-urban migration be mitigated by intelligent villages and rural development? Must urban development be more shaped by its non-urban context?

Session 1: Application of spatial planning tools, models and processes

Session 6.1 deals with the application of spatial planning as an instrument to achieve a more harmonious relationship between rural and urban areas. The application of spatial planning, to achieve a more sustainable and balanced developmental, faces several challenges, especially in rapidly urbanized and newly industrialized economies, in this era of market-led growth and development of regional polarization. Papers in this segment are focused on South Africa, Nigeria and China, three large countries with high degree of regional disparity. Examples of developmental complexities are addressed as well as new planning methods to resolve the identified planning issues.

The session begins with track keynote speaker Gilberte Lincoln whom sets the tone by addressing the complex relationship between spatial planning at a regional scale and the mechanics of public policy. Through a case study of iLembe district municipality, the paper investigates regional planning process in post-apartheid South Africa. Ngidi's empirical study of the Durban Metropolitan area, further argues the need to develop spatial planning based on specific trends of a city or region as opposed to previously used growth models.

Looking at the application of spatial planning tools from a different perspective, Ning explores the latest efforts in integrating the rural migrants into China's urban fabric, by using the planning process of Nanjing City as a case study. Makgalemele's paper, through case studies in KwaZulu-Natal region, discuss district level rural development planning as a tool to improve rural productivity and livelihood, through improved access to nearby urban markets and closer integration

with the production value chain.

Session 2: Generating local economic development through spatial planning

Session 6.2 focuses on the use of spatial planning to generate economic growth opportunities at the local level and continues the discussion from the previous session on application of planning tools and processes to design and improve spatial order. The theme is of particular importance to the host country, the papers presented under the track provide valuable lessons for the international planning community as a whole. While the concept of local economic development is enshrined in South Africa's post-1994 democratic constitution, the country also passed a Spatial Planning and Land Use Management Act in 2013. Consequently, a large body of research about the interface between spatial and economic planning had emerged out of South Africa.

The paper by Gama, Mpondo and Bannister discusses, South Africa's National Development Plan, which aims to transform space relations of the country's economy. A special economic opportunity atlas has been prepared as part of the process to aide in the decision making process by national, provincial, regional and local governments.

Mlonyeni's case-study of the KwaNzimakhwe area, examines how past Local Economic Development strategies focused on the high-income countries of the North to centralize economic centers. Recent strategies focus on pro-poor approaches to strengthen the economic assets in poor communities.. Green et al, investigates how application of a catchment area analysis and other GIS based spatial analysis tools can help prioritize facility investment decisions to best serve the public in non-metro areas of South Africa . Research by Gibbens and Schoeman underscore the importance of the scalar dimension in planning, as a fundamental step to increase our understanding about the micro and macro level variables that impact rural livelihood. Pretorius and Drewes explore the possibility of tighter regional economic integration between 15 countries, which constitute the Southern African Development Community by building development

corridors, based on experience drawn from European Union.

Session 3: Changes due to migration and urbanisation

Session 6.3 deals with fundamental changes in rural-urban relations brought about due to urbanization and migration, and resultant need for protection and conservation of threatened settlement patterns, cultural attributes and qualities of life. The track has papers from Botswana, China, South Africa and the USA.

Track keynote by Pobiner sets the stage by discussing the impact of population increase and urban migration on global sustainability and quality of life. The research focuses on the interrelationships between - urban Form, Food, Energy, Water, and Transport - as five key attributes of sustainable settlement pattern. Mulaba-Bafubiandi's research, based on case studies in the rural areas of Tzaneen (Limpopo) Local Municipality, South Africa, addresses the classic developmental dilemma - between the need for modernization of the rural areas vis-a-viz protection of indigenous traditions and cultural practices. Research by Shu Wan, documenting unique lifestyle of the traditional boat dwellers in coastal China, also bring out similar question, between the preservation of traditional on-water settlements and the developing vision of boat dwellers. The paper by Luo et al demonstrates how they are trying to strike a balance between modernity and conservation, in their developmental strategy of Linhai in China. Olivier's paper on Detroit, USA suggests that integrated urban and rural strategies must be deployed to meet current and future needs. Cavric's research looks at the planning issues in Tlokweng, Botswana, a transitional settlement, undergoing change.

Session 4: Urban-rural relationships

Session 6.4 looks at the complexities involved in rural-urban relations from various national stand points - China, India, Nigeria, Zimbabwe and South Africa. Experience of these four major Afro-Asian countries could yield rich lessons in development planning for other developing countries.

Sinovuyo and Musakwa's paper questions the inbuilt urban-bias in contemporary development thinking, which equates urbanization with modernization and development. Adopting a comparative framework, they investigate developmental trajectories in two communities Qunu South Africa and Tsolotsho in Zimbabwe. They suggest adaptation of a new policy regime which would take into account unique attributes of the rural settlements and economies, rather than complete urban transformation. Omosulu and Osunsanmi investigate the existing economic

linkages between the rural and urban areas Nigeria's Owo region. The research not only identifies the road blocks which hinder greater integration between the two types of settlements but also growth potentials. Bandopadhaya's paper provides an overview of lessons from three planning initiatives from India, targeted to achieve greater developmental synergy between rural and urban areas. Two of these schemes are countrywide in scope and the third one covers the National Capital Region of Delhi. Zheng's research explores the impact of China's National Rural Policy on urban rural relationships through a case study of Changfu in Guangxi.

Session 5: Peri-urban interface

One of the defining phenomena of the contemporary pattern of urbanization is the dynamic transformation of the fringe areas of the urban boundaries, also known as peri-urban areas. These areas are often situated outside the formal city boundaries. Session 6.5, focuses on peri-urban interface and the metropolitan region. This session will explore the challenges and opportunities for rural-urban transitional areas, which often depict a mix of rural-urban land use characteristics. Discussions under this track cover a diverse urban range from the countries of Brazil, India, New Zealand, USA, Turkey and Zimbabwe.

Keynote speaker Baker, addresses sustainability from a metropolitan scale. He provides two case studies, Belo Horizonte Minas Gerais, and Portland, Oregon to address metropolitan growth, governance and planning strategies in major urban centers. The paper discusses concepts of sustainability at the metropolitan scale; and determines the best practice tools and policies used in both Brazil and North America to promote sustainability, through a comparative lens. The peri-urban interface discussion continues into the region of Auckland where planning issues in association with climate change are addressed from the perspective of a compact urban core and a resilient city region. Ingwani and Gumbo's attempts to overcome the rural-urban binaries which inform traditional planning instruments and policy documents, and propose a new framework on the basis of case studies in Domboshava, Zimbabwe.

Choudhury and Alam's research is based on transformation of two small settlements located at the outer periphery of Bhopal, India. The authors argue that rural and urban settlements should not be treated as dichotomous entities, because they are intimately tied to each other through functional linkages. Erdogan's research uses a case study of Akhran, Denizli in Turkey to illustrate application of a fractal geometric analysis to identify and characterize transformation patterns of urban fringe areas.

Understanding of this significant transformation and its relationship between urban areas and the surrounding area is intended to further define the urban boundary and effectively plan for future growth.

Session 1: Application of spatial planning tools, models and processes

Gill LINCOLN, Durban University of Technology, Durban, South Africa

Regional planning in South Africa: a mandate absent since 1994?

Exploring the relational complexity between regional planning and public policy deployment in the case of South Africa using the case of iLembe district municipality, the paper traces post-democracy regional planning and argues that the role of regional planning is largely absent in the current suite of planning instruments.

Yuxi NING, Southeast University, Nanjing, China; Lingjin WANG, China

Study on residential spatial integration of migrant population in China—a case study of Nanjing city

Based on questionnaire data and statistics of the migrant population in Nanjing understanding their migratory trajectories and living conditions, studying the degree of residential spatial integration of the different categories of migrant population help them really integrate into the urban life and promote China's urbanization.

Mbalenhle NGIDI, University of KwaZulu Natal, Durban, South Africa

A critical analysis on the applicability of previously established theoretical growth models in post-apartheid South Africa (the case of the Durban metropolitan area)

This paper seeks to discuss and contrast between the 3 growth models (Burgess Concentric Zone Theory, The Hoyt Sectoral Theory and Bid Rent Theory) and the various growth trends that are currently shaping the development of the DMA.

Nozizwe MAKGALEMELE, Department of Rural Development and Land Reform, Pretoria, South Africa

District rural development planning to guide the transformation and uplift of the lives of rural communities through linking economic production to the value chains and rural-urban markets

The development of District Rural Development Plans as a tool to guide the implementation of the Comprehensive Rural Development Program aims to enhance balanced and sustainable rural development linked to urban areas and the livelihoods of rural communities using the establishment of agri-parks as one of the vehicles.

Session 2: Generating local economic development through spatial planning

Inga MLONYENI, University of Kwa-Zulu Natal, Durban, South Africa

Investigating the needed development to be proposed using communicative planning as a tool to enhance local economic development at Nzimakhwe location

The topic and aim of this study wishes to use the amalgamation of LED and communicative planning at community level as a tool to address socioeconomic issues at Kwa-Nzimakhwe and makes a comparison between the IDP and what the community deems suitable development for them.

Chéri GREEN, Gerbrand MANS, Mawande NGIDI, Zukisa SOGONI, Johan MARITZ, Council for Scientific and Industrial Research, Stellenbosch, South Africa

Using catchment areas analysis and GIS based spatial analysis for prioritising spatial investment in non-metro South Africa

Accessibility and central place principles are used to identify prioritised towns to enable the spatially targeted investments of middle-order social facilities in non-metro South Africa. This supports spatially balanced and the just distribution of facilities to serve the largest number of people from the least service points for better resource allocation.

Menini GIBBENS, Carel SCHOEMAN, North West University, Alberton, South Africa

The spatial context of sustainable rural livelihood development

Not all spatial systems are similar in nature and being cognisant of the micro and macro relations (including that of urban-rural linkages). The spatial context of a rural community provides a fundamental awareness of what constitutes rural livelihoods.

Ockert PRETORIUS, Ernst DREWES, North West University, Potchefstroom, South Africa

The spatial integration of the SADC through development corridors

Regional policies, based on regional integration emphasising economic cooperation and spatial linkages through development corridors, have the potential to stimulate intra-regional trade and economic growth in the SADC. Developing policy implementation mechanisms eliminating trade barriers and improving fragmented development corridors is imperative in the success of regional integration policy directives.

Session 3: Changes due to migration and urbanisation

Joseph POBINER, Gensler, Dallas, United States of America

The impact of population increase and urban migration on global sustainability and quality of life

As global population grows and rural populations shift to urbanized areas, new proactive and scalable development policies and regulations allow for equitable access to transport and anticipate increasing needs while promoting sustainable development patterns in order to accommodate growth.

Victoria OLIVIER, Detroit Future City, Detroit, United States of America

New Detroit—where the urban and rural meet

Detroit, in its current form, is both urban and rural. With vacant land as the greatest opportunity to distinguish itself as an innovative and resilient city for all, both urban and rural strategies must be deployed to meet current and future challenges.

Wen LUO, Xiaowei HUO, Ning JIA, Xiaofeng LIU, Jie ZHANG, Tsinghua Tongheng Urban Planning & Design Institute, Beijing, China

Rural: the history and future of the city: research on the current situation and utilization strategy of the traditional villages in Linhai

Based on an investigation commissioned by the government of Linhai, this paper sorts out and analyses the current situation of the traditional villages in Linhai and puts forward the overall strategy for the harmonious development and revival of these urban and rural areas.

Shu WANG, Tongji University, Shanghai, China

Evolution of traditional boat dwellers' settlements in the process of urbanization in southeast coastal region of China

This paper illustrates the evolution process of the unique boat dwellers' settlements in south-eastern China including the settlement form as well as economic and cultural phenomenon. After using cases to analyse the dilemmas from the social-economic and urban space aspect, some corresponding strategies are put forward.

Antoine MULABA-BAFUBIANDI, University of Johannesburg, Johannesburg, South Africa

Rural development and modernisation of villages in Tzaneen (Limpopo) district municipality: an equivocal dilemma

Technology in rural development and the villages' modernisation generates challenges affecting biodiversity. This precipitates the loss of village tranquillising and peace-of-mind characteristics. Triangulation, observations and non-structured interviews led to interrogate the dilemma brought to rural Tzaneen by the use of technology and the resulting urbanisation and modernism of villages.

Session 4: Urban / rural relationships

Lulin ZHENG, Guoping XIONG, Southeast University, Nanjing, China

Impacts of national rural policy on the urban-rural relationship: a case study from Changfu, Guangxi, China

Chinese rural policies on land use rights, population migration and social support have changed the urban-rural economic and social relationships since the reform and opening in 1978.

Bamikole OMOSULU, Gbolabo OSUNSANMI, Rufus Giwa Polytechnic, Owo, Nigeria

A study of rural-urban linkages in a developing economy of Owo region, Nigeria

The paper examined the differences in spatial planning between rural and urban communities in Owo Region, Nigeria. It emphasized the need for rural-urban integration via physical and economic planning, since the survival of the future cities depends on sustainable rural economy.

Abir BANDYOPADHYAY, National Institute of Technology Raipur, Raipur, India

Integrated rural-urban development in India: an introspection

Various policies have been implemented by the Indian Government to control in-migration from rural to urban areas. The latest policy (SPMRM), introduced in September 2015, promises a better integrated rural-urban development in the country. This paper analyses these policies along with their pros and cons.

Walter MUSAKWA, Sinovuyo. B SITINGA, University of Johannesburg, Johannesburg, South Africa

Urban development versus rural development and ruralism in South Africa and Zimbabwe: what the people really want

Urban development, industrialisation and technological development are not what the people often want in rural areas.

Session 5: Peri-urban interface

Nathaniel BAKER, Universidade Federal de Minas Gerais, Belo Horizonte, Brazil

Planning for a sustainable metropolitan region in Brazil and North America: challenges and strategies

What can planners possibly learn by comparing metropolitan planning between two countries as different as the United States and Brazil, each with vastly different urban spatial structures, legal frameworks, and institutional contexts? It turns out there are more lessons than one might think.

Mfanafuthi GAMA, Department of Rural Development and Land Reform, Midrand, South Africa

The national spatial economic opportunity atlas (NSEOA): a tool for trans-disciplinary rural and urban development planning

The Department of Rural Development and Land Reform will demonstrate the NSEOA. The Atlas provides planners with data and information to understand South Africa's urban and rural development opportunities and challenges and provides a wide variety of data needed for planning in a single portal.

Emaculate INGWANI, University of Venda, Polokwane, South Africa; Trynos GUMBO, University of Johannesburg, Johannesburg, South Africa

Peri-urbanities as incubators of sustainable rural-urban development frameworks: experiences in Domboshava, Zimbabwe

Peri-urban areas represent spaces with mixed land use that exudes competing interests and conflicting characteristics. The peri-urban space presents opportunities for sustainable development of both rural and urban areas. Paradoxically, no scholarship has so far managed to provide solid and informative policy and legislative frameworks tailored for these areas.

Ashfaque ALAM, Binayak CHOUDHURY, School of Planning and Architecture, Bhopal, India

The dynamics of urbanisation – a case of Bhopal district of India

Neither a town nor a village exists in a vacuum detached from the proximate settlements along their administrative boundaries. Villages and towns cannot be seen simply as dichotomous entities. They are intimately interlinked. It is required to unfold the dynamics of rural transformation by identifying the transformational path.

Gizem ERDOGAN, Pamukkale University, Denizli, Turkey

Identifying and characterizing urban fringe with fractal analysis on Akhan, Denizli, Turkey

Urban fringe transformation is important determining of urban boundaries; however, controlling the expansion of urban sprawl is the most important topic for urban planners and decision makers. Fringe belts were considered to be fundamental in the development of the morphological structure and various methodical attempts are identified.