

Internacional Conference

# 20th CENTURY NEW TOWNS

**ARCHETYPES AND UNCERTAINTIES**

Porto, ESAP Auditorium, 22-24 May 2014



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Centro de Estudos Arnaldo Araújo







# 20TH CENTURY NEW TOWNS

## Archetypes and Uncertainties

Edited by  
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**Archetypes and Uncertainties**  
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Centro de Estudos Arnaldo Araújo  
Escola Superior Artística do Porto



## 20TH CENTURY NEW TOWNS

### Archetypes and Uncertainties

The planning and settlement of new towns were originated by different reasons. In twentieth century cities perhaps the largest reason was to determine new territorial and urban planning structures that would allow a better organization of the territory, ensuring the development of more efficient and balanced socio-economic models.

In some cases the construction of these cities was inspired by the principles of the nineteenth century English utopias, reflecting a strong concern in integrating the urban and natural components and highlighting the role of the natural landscape, understood as a city matrix on which articulates the urban structures.

In other cases the inspiration come from the rationalist ideals of the modern movement, seeking to personify the idealistic and democratic spirit of a new world order, producing rational and functional solutions and even if sometimes they do not fully overcome certain obstacles, an important contribution to the urban and architectural theory and practice advance was made.

Furthermore, other cases relate to the post-modernism and the emergence of critical views of the modern movement. These towns were born to give an answer to the problem posed by the large settlements deindustrialization and de-urbanization, assuming the role of organized urban extensions needed for controlling the sprawl of existing cities which was made through a process of unordered and peripheral urbanization.

Some focused mainly on a completely physical, economic and administrative independency in relation to major urban centres. Others, even if based partially on these principles of independence and geographical isolation, were planned as secondary structure networks dependent from a main urban conurbation. Many of these experiments have already been object of diversified studies addressing more or less specific thematic areas, seeking to define and apply critical and analytical methodologies to better understand and decode the processes and design criteria that were the basis of their urban and architectural morphologies.

Opting for an analytical prospective directed to re-contextualizing the urban and architectural contributions of these experiences, the conference *20th*

*century new towns - archetypes and uncertainties* aims to discuss their real effects in the present being especially welcome papers focusing on the following two aspects:

**I. Archetypes** | Spatiality, materiality and identities which persisted over time, not only because they have a high symbolism or because they are the emblematic testimony of a precise thinking about how to re-understand the city in a particular historical moment, but also and especially to continue maintaining the answering capacity to functional and practical demands of contemporary society. They are, in short, realities that did not required significant or radical changes to fulfil their function properly. The reasons for these archetypes remaining active and appropriate may contribute to recognize them as meaningful and timeless, distant from temporal gestures which respond only to contemporary needs.

**II. Uncertainties** | Parts or components of the urban system that remained incomplete, leading to realities that persisted "open" or that were completed through different intentions, appropriation processes or intervention criteria from those planned in their original design. The nature of these uncertainties could be a further indicator of the effects produced by these archetypes in the city development.

Additionally the conference will focus three main thematic/panels covering the post-war satellite towns (as the New Towns Programme and other European similar experiences), the modern cities (as Brasilia or Chandigarh) and a more local perspective embarking the Lusophone New Towns (mainly in Lusophone Africa, but also in Brazil). The conference peer-reviewed call for papers will cover these topics and the communications will be organized under the respective panels, not excluding the possibility of accepting other related topics if they reveal pertinent for the global aims of the conference.

# Programme

## Thursday, 22 MAY

9h30h – Registration

10h00h – Welcome and Opening Session

10h30h – *New Towns as fragmentary urban projects. From 'Barcelona's Ensanche' to 'Madrid's Linear City'* | Professor Álvarez Mora

11h00h – Debate

11h20h – Coffee Break

### Session 1 – Thematic I – Critical visions and approaches

Chair: José Rio Fernandes | Faculdade de Letras da Universidade do Porto / CEGOT

11h40h – *20th Century New Towns – From Archetypes to Uncertainties* | P. Marcolin and J. Flores (DARq, Escola Superior Artística do Porto) – Portugal

12h00h – *Portugueses in CIAM X* | H. Maia and A. Cardoso (Centro de Estudos Arnaldo Araújo, Escola Superior Artística do Porto) – Portugal

12h20h – *Mat buildings – Gated cities. Critical, change and paradoxical phenomenon in last 20th century new towns* | I. Borrego (Centro de Estudos Arnaldo Araújo / Higher School of Architecture, University of Valladolid) – Spain

12h40h – *From Moore to Calvino. The invisible cities of 20th Century planning* | E. Fernandes and A. Silva (School of Architecture of University of Minho) – Portugal

13h00h – Debate

**13h20 – Lunch**

14h30h – *The 20th Century New Towns. The Searching for an Ideal City* | Professor Ana Tostões

15h00h – Debate

## **Session 2 – Thematic II – New Towns in the construction and relationship with the landscape**

Chair: Jorge Pimentel | Centro de Estudos Arnaldo Araújo, Escola Superior Artística do Porto

15h20h – *The landscape in Le Corbusier plans for Chandigarh. Nature and symbol* | F. Silva (DArq, Escola Superior Artística do Porto) – Portugal

15h40h – *An investigation on landscape structures in Iranian New Town development – The case of Fuladshahr New Town (1963-2013)* | A. Badiie (Department of Architecture, Faculty of Engineering Science, KU Leuven University) – Iran / Belgium

16h00h – *(in) The invention of Brasília Modelling: the Ground* | M. Oliveira (School of Architecture of University of Minho) – Portugal

16h20h – Debate

16h40h – Coffee Break

## **Session 3 – Thematic III – New Towns as political or ideological paradigms**

Chair: Jorge Ricardo Pinto | DArq, Escola Superior Artística do Porto

17h00h – *Towns-villages-hamlets: new foundation city in Italy during the fascism period* | M. Bordin (Department of Architecture, Built Environment and Construction Engineering, Polytechnic of Milan) – Italy

17h20h – *Stalinization of Estonian city space: development, typology and perspectives* | S. Sultson (Estonian Entrepreneurship University of Applied Sciences) – Estonia

17h40h – *Colonial archetype and national rebirth. Railway stations and 20th century new cities in China* | Z. Chen and Z. Tan (School of Civil Architecture, Polytechnic of Milan) – China / Italy

18h00h – Debate

**18h20h – Closing**

**19h00h – Cocktail**

## Friday, 23 MAY

9h30h – *Transferable Lessons from the British New Towns* | Professor Georgia Butina-Watson

10h00h – Debate

10h20h – Coffee Break

### Session 4 – Thematic III – New Towns as political or ideological paradigms

Chair: Axel Fisher | Faculté d'Architecture La Cambre Horta/Université Libre de Bruxelles

10h40h – *British New Towns through compared examples. Three examples: Harlow, Thamesmead and Milton Keynes* | C. Blasco, F. Martínez and J. Deltoro (Escuela Técnica Superior de Arquitectura, Universitat Politècnica de València) – Spain

11h00h – *Lan-Plan: Central Lancashire New Town 1965-1986* | V. Jolley (Manchester School of Architecture/ University of Central Lancashire) – United Kingdom

11h20h – *The New towns around Paris. What have they become forty years later: new centralities or ordinary suburbs?* | D. Desponds (University of Cergy-Pontoise) – France

11h40h – *An overview of Brazilian New Cities in the 20th century* | R. Trevisan (School of Architecture and Urbanism, University of Brasília) – Brazil

12h00h – Debate

**12h20 – Lunch**

### Session 5 – Thematic III – New Towns as political or ideological paradigms

Chair: João Cortesão | The Academy of Urbanism of London

14h00h – *Vällingby. Sweden's first satellite town* | A. Vikstrand (University of Uppsala) – Sweden

14h20h – *Sasolburg, a South African New Town, 1951. The 'Sasolburg pattern' at a crossroads* | W. Peters (University of the Free State) – South Africa

14h40h – *Monarto: learning from the past* | P. Walker, D. Nichols and J. Grant (University of Melbourne) – Australia

15h00h – Debate

15h20h – Coffee Break

**Session 6 – Thematic IV – New Towns as variants or archetypes: functional or geographic**

Chair: Sérgio Mendes | DArq, Escola Superior Artística do Porto

15h40h – *Hydroelectric Towns in Portugal* | C. Moreira (Centro de Estudos Arnaldo Araújo/Universidade Lusíada do Porto) – Portugal

16h00h – *Between global turbulences and local manners: the multiple lives of the Bata Shoe Company satellite towns* | V. Sanz (Escuela Técnica Superior de Arquitectura de Madrid / Technical University Delft) – Spain / The Netherlands

16h20h – Debate

16h40h – Coffee Break

**Session 7 – Thematic IV – New Towns as variants or archetypes: functional or geographic**

Chair: Axel Fisher | Faculté d'Architecture La Cambre Horta/Université Libre de Bruxelles

17h00h – *The piazza as the core of the Italian rural settlements in colonial Libya: a theatre for fascist power, the obvious answer to local town planning requirements, or just a place to meet?* | V. Capresi (Faculty of Engineering, German University of Cairo) – Egypt

17h20h – *Modern habitat in Casablanca. Appropriation and re-use* | S. Mocchi (Department of Civil Engineering, Environmental and Architectural, University of Cagliari)

17h40h – *The experience of the communist settlement. The Danwei dayuan and the evolution of urban fabric of Chinese cities* | Z. Tan and Z. Chen (Department of Architecture, Built Environment and Construction Engineering, Polytechnic of Milan) – Italy / China

18h00h – Debate

**18h20h – Closing**

**19h00h – Dinner**

## Saturday, 24 MAY

9h30h – *Foundations and Fundamentals. Urban centralities for European suburbs and new towns: a comparison of case studies from chinese post-metropolis to north-african “pure desert”* | Professor Guido Morpurgo

10h00h – Debate

10h20h – Coffee Break

### Session 8 – Thematic V – Prospective vision

Chair: José Semide | DArq, Escola Superior Artística do Porto

10h40h – *Cities's Structural Matrix From 1950's Till Today – Between Superlative and Palliative* | D. Viana (Escola Superior Gallaecia / Escola Superior Artística do Porto) – Portugal

11h00h – *Uncertainty in contemporary urban planning concepts and methods. What we (still) can learn from Garden Cities and New Towns* | B. Moreira (Architecture and Urbanism Study Center, Faculty of Architecture, University of Porto) – Portugal

11h20h – *Life versus Architecture. Rationalist ideals facing popular taste, from Pessac to Malagueira* | E. Fernandes (School of Architecture of University of Minho) – Portugal

11h40h – Debate

12h00h – Coffee Break

### Session 9 – Thematic V – Prospective vision

Chair: Nuno Travasso | Faculdade de Arquitectura da Universidade do Porto

12h20h – *Chandigarh. The city beautiful. One of the greatest examples for modern planning* | S. Vimal (College of Architecture at Bhabha Technical Campus) – India

12h40h – *When archetypes generate uncertainty: the case of the scattered metropolis* | L. Roland (Université Catholique de Louvain) – Belgium

13h00h – *Prospective approach. A topographical linear town in Wallonia. Learning from an in-depth analysis of the initial Louvain-la-Neuve planning experience* | B. Terlinden (Faculté d'architecture La Cambre Horta, Université Libre de Bruxelles) – Belgium

13h20h – Debate

**13h40h – Conference Closing Session**



**THURSDAY, 22 MAY**



## KEYNOTE SPEAKER

## NEW TOWNS AS FRAGMENTARY URBAN PROJECTS. FROM 'BARCELONA'S ENSANCHE' TO 'MADRID'S LINEAR CITY'

**Alfonso Álvarez Mora**

New towns projects aren't just delimited as spatial entities devised to take up a territory which has lacked of any kind of urban existence until that moment. That is, they go beyond its colonial meaning and aim at emphasizing a territory, whether in economic or representative-politic terms. A new town, conceived as a unitary project, can also express itself as a theoretical and far-reaching proposal. Thus, town is considered as a whole, even though the degree of spatialization only affects an urban fragment limits. It is with this conception that nineteenth-century Ensanches at Mediterranean towns and Madrid's Linear City, for example, were planned. These proposals are intended to be incorporated to an existing town, continuing with a more classical tradition linked with "New Towns" project. Both of them combine its nature of fragments, contribute to existing towns' urban development, and establish themselves as alternatives to that one at the same time. That's why they are understood as "New Towns". It is not necessary to start from the beginning to think that we are designing a new town project. The really important thing is not so much the suggestion of a new urban entity, but the theoretical-disciplinary approaches accompanying and giving sense to the specific urban project, even if their parameters are limited to a new fragment which should be included in the existing town. This was the sense of nineteenth-century Ensanches, devised as town projects which are alternative to the existing one, complementing its native spatial elements and expressing "New Towns". The same applies to Madrid's Linear City designed by Arturo Soria. We are going to analyse both urban alternatives, focusing on their effects and influence on "New Towns" projects, including those which mention concrete urban fragments during the twentieth century.

## SESSION 1

Chair: José Rio Fernandes

## 20TH CENTURY NEW TOWNS – FROM ARCHETYPES TO UNCERTAINTIES

Paolo Marcolin and Joaquim Flores

Since the early twentieth century, the history of the city and modern urbanism was particularly marked by ideas and projects for new cities with a strong utopian and paradigmatic character:

- prototypes, unsuccessful or partially implemented, which unquestionably influenced the culture and practices of urban planning and architecture, achieving still to sensitize the collective imagination over the image of the cities of the future;
- primordial archetypes, acting as true testimonies of concepts, intentions or ways to devise new dimensions and features of the urban environment and alternative and revolutionary ways to understand how would be the city of the future generations.

The evolutionary path of these ideas or projects culminates, and in certain sense ends, with the new vanguards of the 50's and 60's, where the preconized concepts of town (unlimited) point to the dissolution of the architectural object and of the architecture itself. Becoming the latter and associated city models as the ultimate uncertainties, almost consecrating the other uncertainties that come together in an attempt to understand the phenomena and new trends of the real city. After these expressions, the visionary interest in the new cities of the future starts to fade, due most probably to a growing concern to understand the issues and the effects of the great dynamism of urbanization and the process of metropolis creation.

Eventually, the analysis of this path will provide an opportunity to reinforce the importance and the contribute of ideas and major projects, that even today are considered as the most paradigmatic of the twentieth century, particularly those planned in the 20's and 30's. The value of these contributions as a methodological reference and a research base becomes even more evident under the latest developments, testing new urban models and planning new cities in emerging countries, which seem to point a return to the search of new visions and solutions for the city of the future.

## PORTUGUESES IN CIAM X

**Maria Helena Maia and Alexandra Cardoso**

The Portuguese delegation at CIAM X presented a proposal for a rural community. This was an innovative attitude that reflected the rapprochement to vernacular architecture. The same approach that is present in the survey to folk architecture, carried out in the 50s by some of the Portuguese modern architects.

This paper focuses on the characteristics of the Portuguese proposal on Drubrovnick in 1956 and what it represented in terms of national and international architectural culture.

Starting from coeval documentation – letters, drawings, reports, notes and other manuscripts – it was intend to re-read the choice of the Portuguese team in its articulation with the rural world. This choice represents an innovative contribution that combine multiple approaches, which going through anthropology culminate in the architecture.

On the one hand, it is important to deepen insight of the level of relationship of this project with the Arnaldo Araújo's CODA (Contest for Obtaining the Diploma of Architecture). On the other hand is important to explore connections with the urban interventions that were running on the countryside.

# **MAT BUILDINGS – GATED CITIES. CRITICAL, CHANGE AND PARADOXICAL PHENOMENON IN LAST 20TH CENTURY NEW TOWNS**

**Iván I. Rincón Borrego**

The paper aims to revalue and to compare two urban phenomena of growth and change during the second half of the 20th century: the Mat Building and the Gated City.

On the one hand, Mat Building is analysed as a modern strategy of spatial and formal organization in architecture, which is related to the concept of Mat Urbanism. This idea is rooted in the interest of TEAM X in the traditional cities of North Africa, Japan and China, among others, during the late 1950s and 1960s. In 1974 Alison Smithson defined this urban structure using the model of Arab fortresses called Kasbah: “where the functions come to enrich the fabric, and the individual gains new freedoms of action through a new shuffled order, based on interconnection, close knit patterns of association and possibilities for growth, diminution and change.” Alison Smithson formulated an alternative to the functional city described in the CIAM’s Athens Charter. But she also proposed a new urban form, closed and opened at the same time, a kind of urban structure based on the necessity of identity and mobility.

On the other hand, the phenomenon of the Gated City is also closely related to the idea of urban identity. The CIDs (Common-Interest-Developments) began to emerge at the end of the 1970s, but actually, that idea was put into practice during the 19th century, as a reaction of utopian socialism to environmental and social consequences of the Industrial Revolution. In the context of the sprawling city, during second half of the 20th century, the New Urbanism also established its criticism to the urban ideology of the Modern Movement, as the TEAM X had done before them. However, unlike the previous one, this current used the paradigm of the walled medieval city, or Gated City, which was indebted to the anti-industrial manifesto of Rob and Leon Krier. They wrote: “function follows form”, and not the opposite, as Louis Sullivan had said. Therefore, a purely picturesque approach to urban form was adopted, against the rationalism of the modern post-war planning.

The paper compares both strategies through European and North American urban developments. It analyses their spatial and social structures pointing their own relevance in contemporary urban discourse, and it provides a critical relationship between them, which is full of paradoxes and contradictions for the sustainable urbanism and the land-use planning challenges.

## **FROM MOORE TO CALVINO. THE INVISIBLE CITIES OF 20TH CENTURY PLANNING**

**Eduardo Fernandes and Ana Carina Silva**

The contrast between the social and urban Utopia of Thomas Moore and the English Society of the sixteenth century can be used as an excuse to reflect on the concept of Utopia as an idea that is not possible to concretize when it is proposed but can be feasible some years later.

In the planning of 20th-Century New Towns we often find a strong component of Utopia due to the inadequacy to the social and/or technical conditions of the moment. The contrast between the ideal plan and the construct results (when there are any) is often strong, allowing us to consider the existing of an invisible city that is hidden behind the actual urban spaces; it can be a utopia waiting to be concretized or a dystopia caused by an unforeseen evolution of urban spaces and social dynamics.

In the 1972 work of Calvino, *The Invisible Cities*, we find a poetic discourse about the city that can be interpreted as a critical reflection on the ideas and results of the coeval urban practices.

In this paper, we intent to present an interpretation of some of the 20th Century urban ideas based on the reading of the eleven themes of this book. The links that can be established between the various Invisible Cities (moving and combining them, like the pieces of a chess game) inspire the formulation of several assumptions that can be related to the images, forms and ideas of some Archetypes and Utopias of 20th Century planning: Corbusier's *Ville Radieuse*, Mies van der Rohe's plan for the IIT in Chicago, Minoru Yamasaki's Pruitt-Igoe housing complex, Robert Venturi's (et al.) studies on Las Vegas and Levittown, the images produced by Archigram and the theoretical work of Jane Jacobs, Aldo Rossi, Kevin Lynch, Rem Koolhaas, François Ascher and Joel Garreau.

## KEYNOTE SPEAKER

## THE 20TH CENTURY NEW TOWNS. THE SEARCHING FOR AN IDEAL CITY

**Ana Tostões**

The search for the ideal city on the 20th Century has to do with the creation of New Towns. The New Towns concept is rooted in UK under the scope of the London City Council reconstruction actions after the WWII. The movement had a tremendous impact from Helsinki's Tapiola's or Lisbon's Olivais Neighbourhood. These developments must quote Howard's Garden City Movement raising and inspiring the Modern Movement Urbanism: from the Neue sachlichkeit Bruno Taut's Siedlungen or the May's Neues Frankfurt enterprise to the Tessenow Hellerau Neighbourhood, from Tel-Aviv new city to Brasília or Chandigarh new capitals which revealed specific political and cultural targets.

The paper intends to provide a reading on the New Towns European influence and the non-Europeans New Capitals iconic reference as a 20th Century specific urban approach. The analysis aims at discussing this Modern Urban legacy as a strategy for the Unesco' urban landscape heritage concept implementation.

## SESSION 2

Chair: Jorge Pimentel

## THE LANDSCAPE IN LE CORBUSIER PLANS FOR CHANDIGARH. NATURE AND GEOMETRY

Filipe Silva

Chandigarh is the most complete achievement of the Le Corbusier ideals, in architecture, urbanism and landscape. The Le Corbusier proposal starts over the Albert Mayer's plan of 1949 that “should be developed and detailed” and reach's its climax in the full conception in the capitol complex.

In this paper the analysis will start over the landscape point of view, searching for the fundamental premises of the conception, and will be focusing in the masterplan history and major modifications, of the Mayer's plan 1949, from the first revision of March 1951 to the final plan of Le Corbusier on May of 1952.

The masterplan revision establishes a new city's structural order, evolving from the premise of the naturalistic tradition of the English garden to the regular composition and sense of order from the French formal garden school.

This formal experiences and achievements combined with the natural elements, such as the rivers on the borders, the valley on the ground level and the Himalayan mountains in the horizon, corresponds to a pattern of ideas early established in the Jeanneret's youth and always present in his proposals.

# **AN INVESTIGATION ON LANDSCAPE STRUCTURES IN IRANIAN NEW TOWN DEVELOPMENT. THE CASE OF FULADSHAHR NEW TOWN (1963-2013)**

**Azadeh Badiee**

This paper intends to explore the changes made to the urban landscape of Fuladshahr New Town in Iran by focusing on (mainly public) strategies and initiatives elaborated with regard to two particular urban development momentums. Firstly, the experiences of the pre-Islamic revolution of 1979 under the shah's regime and secondly, developments occurring after the Iran-Iraq war period. The exploration draws on two different levels of analysis, namely the large-scale of the metropolitan region, the medium-scale of the New Town in each stage of time.

Rapid urbanization and the rural-urban migration during Iran's modernization forced the government and urban decision makers to offer an array of different solutions for housing and infrastructure provision at each paradigm shift. From construction based on political security and industrial growth to regional decentralization in order to control the overflow of population in large cities, these strategies have all been considered in Iran's New Town development. Most recently, the government provided affordable housing (known as Mehr housing) is the main agenda under which New Town development is implemented throughout Iran and around Tehran.

This contribution offers an alternative reading of the above-mentioned development strategies by focusing on the landscape characteristics that acted as a support for past urban developments and are no longer relied upon when developing Iranian New Towns. Methodologically the paper applies inductive and descriptive approaches in which will not only analyse Fuladshahr's degrees of flexibility over a period of time, but will also investigate the role of landscape in the New Town's evolution. Using mapping methods, the landscape will be highlighted in the role it has (or not) covered in Fuladshahr's urbanization, and the type of urbanity that has consequently been generated.

# **(IN) THE INVENTION OF BRASÍLIA: MODELLING THE GROUND**

**Maria Manuel Oliveira**

Brasília is built from a rigorous and magnificently designed ground.

It is visible to those who wander the city that its composition rests on an extraordinarily modelled ground: the streets and buildings are linked to the land as if on skin that not only welcomes but also amplifies its tri-dimensionality.

The perception of this plasticity is evident at all scales, intersecting the shape of road infrastructures, the layout of buildings in Superquadras and strongly pronouncing itself in the Esplanada platform. Also, it is admirably expressed on Central Rodoviária, known as 'marco zero', a sublime moment where the various brasiliense scales articulate and mould together.

This modelling is a fundamental ally in the 'modern monumentality' of Brasília. Engaging and integrating the infrastructural technique, the moulding of the land appears as a subtle backdrop, resulting from its absolute 'naturalness', insinuating that the topographic support was always present, a feature of the territory that the planner found and, from this 'natural condition', conceived and developed the urban design. But one substantial intervention on the original topography is evident in the photographic records taken during the construction of the city, demonstrating that this 'naturalness' is deliberate and controlled through careful design. However, the disciplinary literature we know systematically represents the city in plan and shows no section at urban-scale that relates to the design of the settlement with the corresponding manipulation of the land.

This communication perceives the modelling of the ground as a fundament of the urban design and aims to contribute to the reading of the Plano Piloto by comparing the project(s) of the city – in plan and section – and determining how the topography upon where it is set was interpreted.

## SESSION 3

Chair: Jorge Ricardo Pinto

# TOWNS-VILLAGES-HAMLETS: NEW FOUNDATION CITY IN ITALY DURING THE FASCISM PERIOD. DESIGN PARADIGMS FOR A NEW DEVELOPMENT

**Micaela Bordin**

This paper aims to study the "foundation cities" of the fascist regime in Italy with the particular attention in the Pontine Plain, in the regions of Sardinia and Apulia. These new kind of city-villages appear united by ambitious proposals of land transformation and characterized by a peremptory and constant remodelling of the natural and agrarian landscape, promoting with their foundation a settlement compound of other towns, farms, farm houses, new villages, through a long-distance political coordination extended on the territory. To these city-villages a shared settlement role is recognized, due to a "design" that tends to narrow down in the "redeemed" plains a centre or a system of multiple centres, on which converges and from which branches or on which "is sustained" a network of streets, roads, canals. On the territory, all punctuated by the orthogonal grid lines of the canals, finds place the settlement and production unit, that is the farmhouse and the farm. To a defined number of farms correspond a village, to a number of villages, a city. The city, a privileged point of the territory, is intended to receive the most public functions without ever losing his contacts with the campaign, and represents the image and the urban reference for settlers scattered in the countryside. A total intervention therefore able to invest in a wide range of sizes, from the structure of the territory to the urban model for a new lifestyle, a new man.

The "foundation city" so analysed, intended as the representation and creation of a new reality, becomes an element of acceleration as part of a new development, capable of triggering new models, of creating new links with the production and of regaining a functional reorganization through the urbanization of the countryside.

# STALINIZATION OF ESTONIAN CITY SPACE: DEVELOPMENT, TYPOLOGY AND PERSPECTIVES

Siim Sultson

## Background

Similarly to totalitarian Italy and Germany Soviet Stalinist town planning seems anachronistic but paradoxically embodying harmony and effectiveness. Although the contemporaneous tradition-based town planning was quite similar both in authoritarian and democratic countries, the new trend most strongly appeared in the totalitarian countries where strong ideologies were crystallised into grandiose and ensemble-like memory carriers in architecture and town planning. Even more, strictly organised, axial town planning, well-known since Roman times via renaissance and classicism upon the 20th century is rather functional in order to organise town's gridline, which is supposed to make the state more effective, enterprising.

## Results

As shows benchmarking of independent Estonian 1930s town planning with post-war Soviet period Estonian 1940s-1950s practice, Stalinist principles brought by Soviet occupation (since 1940) where rather similar to local ones disaccording mainly by quantity and methodology. Paradoxically regardless the war wreckages and terrorism of occupying Soviet regime Stalinist town planning principles generally matched with Estonian architects' city visions. Some existing towns (for instance Tallinn, Pärnu, Narva) got new centres due to war wreckages, on the other hand for the ideological reasons. Meanwhile new industrial towns as examples of Stalinist utopia were built in East-Estonia during 1940s-1950s in order to exploit local mineral resources by the Soviet regime. Compared to small independent Estonia Soviet Union, encompassing 1/6th of the whole planet, was much bigger subsidizer. Though suffering irrational demolitions (Narva, Pärnu) after World War II, Estonian towns got axially arranged representative, sometimes enormous, but fairly perspective and functional plans (Sillamäe, Kohtla-Järve).

## Implications

Is strictly organised public space as a part of town planning merely ideological? Is axial and a strict gridline of town layout totalitarian or just functional? Why did totalitarian systems use strictly organised, axial town

planning? It seemed to embody an enterprising state tending to solve all social problems as effectively as possible. There seem to exist quite effective examples of town planning that are solved with rather enterprising methods in Estonia. On the other hand such imperial town plans are quite challenging both to the local authorities and the state nowadays.

# COLONIAL ARCHETYPE AND NATIONAL REBIRTH: RAILWAY STATIONS AND 20TH CENTURY NEW CITIES IN CHINA

Zhen Chen and Zhu Tan

Railway stations played a vital role in the creation and transition of 20th century new cities in China. The early railways development in China at the beginning of 20th century was promoted by foreign companies; it radically changed the pre-existing territorial hierarchy in the regions concerned, implying the construction of new planned cities, or the addition of new cities siding existing Chinese old cities. In both cases this kind of settlement had all the typical features of the company town, indeed railway company town. In this way the Russian CER (Chinese Eastern Railway) built the cities of Harbin and Dalian in the form of “ideal city” of that time, i.e. the garden city, and the Japanese SMR (South Manchuria Railway) added a completely new urban body, the so called “the business city”, to the old Manchuria capital of Shenyang. Later the urban archetype of the business city of Shenyang was also adopted in the new Manchukuo capital of Changchun, and in some others Manchurian cities like Fushu and Jiamusi.

In 1920s the Nationalist Government made the Capital Plan of Nanjing, which could be considered as the Chinese version of the plan of Washington, D.C. (L'Enfant) and New Delhi (Lutyens). Indeed the plan reflected Chinese imperial planning and architecture. In this project the three Chinese style Pavilions of the railway station building were positioned at the end of the central axis, in the focal position of the new Administrative District of the capital.

Later in Beijing, during the post colonialism period the communist regime introduced a new urban display in which the railway station, was playing the role of the “gate” of the new monumental axis celebrating with museums and governmental buildings China's new identity. The sample of Chang'an Avenue with the new Beijing Central Station became an archetype replicated in many other provincial capital cities. This idea of integrated urban complex whose focus is the railway station is even used nowadays in some cities with their new stations for the high speed railway.

The cases here listed and illustrated in the following paper show the metamorphosis and the continuity of an urban archetype of Chinese contemporary city with its roots in the colonial and post-colonial past.

**FRIDAY, 23 MAY**



**Georgia Butina Watson**

Great Britain has a long tradition of building New Towns. Some of the early developments, such as Letchworth and Welwyn Garden city were a direct outcome of Ebenezer Howard's ideas presented in his seminal work *Tomorrow: a peaceful Path to Real reform* (1898) later published as *Garden Cities of Tomorrow* (1902). These early developments were initiated to remedy some of the worst slum conditions of London and they became models for the next generation of new settlements.

The post-war reconstruction was underpinned by the 1946 Act on building New Towns in order to accommodate the overspill from London and to generate urban growth. Thirty two New Towns were designated in two phases: Phase One, from 1946-1950 and Phase Two, between 1961-1970. Phase Three took place between 1970 and 1996.

In 2004 the Office of the Deputy Prime Minister commissioned a research project on the transferable lessons from the New Towns, to establish guidance for the building of new or expanded communities in four growth areas: London- Stansted-Cambridge-Peterborough corridor; Ashford in Kent; the Thames Gateway; and the expansion of Milton Keynes. This paper presents the key findings of the research, by focussing on the context of building New Towns in the UK; by identifying key transferable lessons grouped under eight themes of delivery, finance, creating communities, governance, economic achievement and competitiveness, physical environment and design, long-term sustainability and end user experience. The last part of the paper makes final recommendations for building new communities in the 21st century.

## SESSION 4

Chair: Axel Fisher

## BRITISH NEW TOWNS THROUGH COMPARED EXAMPLES. THREE EXAMPLES: HARLOW, THAMESMEAD AND MILTON KEYNES

**Carmen Blasco Sánchez, Francisco Martínez Pérez and Julia Deltoro  
Soto**

Great Britain has always been a pioneer in the field of urban planning during key stages in its history, the Garden City (in the early twentieth century) and the New Towns (once the WW2 was finished) are two models that have been decisive in our urban culture, besides having been used with a great profusion internationally. The influence that throughout the twentieth century the development of the Modern Movement had, is another determining factor of the course of the mentioned models and their commitment with these new resources in the architectural and urban settings.

The experiences of Harlow, Milton Keynes and Thamesmead shed light on these and other topics of interest for future developments. By deepening into aspects as their instrumental and compositional definition, their own urban development and programmatic aims, the shapes of each settlement and its relationship with the territory, their urban structure, their compositional units, the paper and settings of the civic centres, their architectural typologies and the landscape treatments, allows us to make a compared diagnosis of these experiences and of some data which demonstrates the compliance of their aims and how they have evolved, their current situation and their future expectations.

It is about making a current reading of them in terms of the greater or lesser implications of their ideologies and their possible influence on the challenges that the urban planning and design is facing nowadays. The New Towns are an alternative to the sprawl of large cities and avoid a dispersed growth on the territory, a problem still to be resolved and inherited from the last decades in Europe. The recommendations for a sustainable development advocate not occupying the greenfield, but also defends the compact city in a precise location with a certain territorial autonomy.

# LAN-PLAN: CENTRAL LANCASHIRE NEW TOWN 1965-1986

Victoria Jolley

From 1965 Lancashire, in the North West of England, became the focus of a major renewal scheme: the creation of a new 'super-city'. The last and largest New Town designated under the 1965 Act, the proposed city, called Central Lancashire New Town (CLNT), differed from other New Towns. Although influenced by the ideals and example of Garden City model, its master plan was based on the region's existing urban poly-centricity that had evolved during the Industrial Revolution. By unifying and supplementing existing townships it aimed to generate prosperity on a sub-regional scale using the New Towns Act, rather than creating a single new urban development. Although only part-realised the scheme became a focus for Lancashire's industrial and urban revival, rejuvenating many existing communities and providing multiple municipal modern city-scale civic buildings in Lancashire's towns.

The paper will outline the origins, intentions and achievements of CLNT including examples of its modern and often brutalist architectural legacy. As urban design precedent, it is pertinent to the Town and Country Planning Association's current national campaign to continue the work of the Garden City movement as well as regional debates concerning Lancashire's future urban redevelopment, particularly Preston (the proposed sub-regional centre of CLNT), which was granted City status in 2002.

## **THE NEW TOWNS AROUND PARIS. WHAT HAVE THEY BECOME FORTY YEARS LATER: NEW CENTRALITIES OR ORDINARY SUBURBS?**

**Didier Desponds**

Launched in the middle of the sixties, the urban plan (SDAU de la région Parisienne) has deeply changed the face of the first agglomeration of France: five New towns have been progressively created in order to resolve some of main problems in terms of urban amenities or economic efficiency. Located in the urban fringes, they should reorganize the whole agglomeration following a polycentric model. At first, the success of the project was directly depending on State's support. Then, the New towns have become more autonomous, generating their own attractiveness. Forty years later, even if the project is not yet totally finished, it may be possible to evaluate the various consequences of this vast scheme. To begin with, the demographic weight of the new towns is not so important than initially expected: less than 8% of the whole population of the agglomeration of Paris in 2006. Their economic weight is about the same: less than 7% of the agglomeration. Nevertheless, the New towns concentrate an important quantity of diversified jobs and they succeed attracting firms in different activity sectors, even if each one of them does not possess the same advantages. Because of this you may conclude that the New towns have partially reached their initial goals: to create new centralities in the suburbs and to break with their lack of jobs and urban amenities. Although the suburbs of Paris are much more diverse than we generally think, the New towns have contributed to a necessary improvement of their socio-spatial organization. However, the recent urban policy in the agglomeration of Paris, called Grand-Paris, is absolutely not based on the New towns.

# AN OVERVIEW OF BRAZILIAN NEW CITIES IN THE 20TH CENTURY

**Ricardo Trevisan**

The creation of New Cities (NCs) – previously planned and professionally designed – can aggregate interesting details to the history of urbanism. It is known that a considerable part of the exemplars of idealized cities emerged from utopic propositions, as criticism towards the contemporary city and from the desire to create the condition of an ideal society, educating its citizens according to its urban organization and its architecture, thus providing them with the necessary condition for socioeconomic development. It is within this context that the present work is inserted, seeking – by means of the use of specific bibliographic referencing and the articulation of a host of Brazilian exemplars – to reveal a perspective of Lusophone New Cities. This paper intends to explore and look at a temporal line more in-depth by benefiting from the more than 200 cases of NCs implanted in Brazil, with the purpose of answering the following question: Can we find Brazilian archetypes which persisted over time or that can mark some historic period? This is an overview of Brazilian NCs which will allow us to better understand this particular scenario and reveal other exemplars beyond than just the most best-known case: Brasilia.

## SESSION 5

## VÄLLINGBY: SWEDEN'S FIRST SATELLITE TOWN

Chair: João Cortesão

Anna Micro Vikstrand

The first Swedish satellite town was built in Vällingby outside Stockholm. Planning commenced in the early 1950s and the town was inaugurated in 1954. The layout plan was drawn by City Planning Director Sven Markelius, an active member of the CIAM and one of the architects behind the UN's New York headquarters. In Vällingby, all the characteristics of a city – jobs, housing and commerce – were to be represented. Inspiration was drawn from Lewis Mumford's *The Culture of Cities*, translated to Swedish in 1942, as well as Patrick Abercrombie's 1944 Greater London Plan. Vällingby was envisioned as a neighbourhood unit, consisting of smaller housing areas - each containing a corner shop, kindergarten and playground - organised around a larger town centre offering more sophisticated commercial, cultural and social services.

Neighbourhood planning in Sweden came to include a dimension not often found in other countries – the ambition to increase citizens' democratic awareness. During the war, a group of influential people had convened to discuss the attraction of Nazism and Fascism, and what methods could be used to make people more democratically aware. Their ideas came to exert great influence on post-war Swedish city planning. By means of good planning, citizens would be encouraged to relate to bigger primary groups and thereby take an active democratic responsibility. By offering equal housing to everybody, Vällingby was also intended to become a classless community, but despite efforts, the gap between blue-collar and white-collar workers was never fully bridged.

Vällingby was a largely successful project. The town generated jobs consistent with the numbers that had been projected, but establishment was slow and by the early 1960s only a quarter of the inhabitants were working in the neighbourhood. Vällingby became the archetype for Swedish post-war city planning. The area garnered international attention and was visited by among others Le Corbusier.

# **SASOLBURG, A SOUTH AFRICAN NEW TOWN, 1951.**

## **THE 'SASOLBURG PATTERN' AT A CROSSROADS**

**Walter Peters**

Despite its minerals and wealth of raw materials, natural oil is a resource South Africa does not possess. But, it has vast deposits of low grade coal which can be converted for the production of synthetic oil and petrol.

Conceived in 1951 as the company town of the South African 'oil-and petrol-from-coal' corporation, Sasolburg is strategically located adjacent to vast deposits of coal, the Vaal River for supplying the large quantities of water required in the conversion process, and the principal consuming area of Johannesburg, some 100km northward.

The design was entrusted to Swiss immigrant architect-planner, Max Kirchhofer (1910-2011) to whom the “aim of making towns safer places to live in” was paramount. However, conditioned by the apartheid paradigm, in fact, two towns with similar concepts were built, Sasolburg for whites and Zamdela for blacks.

In both, main streets radiate from an inner ring road defining the central area free from vehicular traffic. While acknowledging its derivation from the Garden City and Radburn (1928), Kirchhofer devised what he termed the 'Sasolburg pattern' for the residential precincts. This pattern separates vehicular through-traffic from residential areas and, while the predilection for detached dwellings was accepted and other types of accommodation were correlated, a continuous system of wide, landscaped green strips, traverses residential areas affording pedestrian access to the primary school, shops and recreation club, and from one precinct to the other, keeping intersections with main streets to an absolute minimum.

Six decades on, the petrol-from-coal industry still flourishes, but concerns for personal safety have rendered the park strips a liability, exacerbated by the high garden walls now surrounding the houses which limit surveillance. The priorities of the new municipality are different and walkways and park strips are unkempt. An attempt has been made to infill the parks with housing to densify the town, and informal trading has changed the quality of the walkways in the centre of town. In the post-apartheid South Africa, the aim “of making towns safer places to live in” requires more than separating pedestrians from vehicles.

# MONARTO: LEARNING FROM THE PAST

Paul Walker, David Nichols and Jane Grant

The South Australian 'new town' of Monarto was conceived in the late 1960s by a bold and visionary state government; it soon became a key part of a Federal government program of greenfield cities designed to counter overpopulation of the already overlarge 19th century cities of Australia.

Comprehensive research and development was undertaken throughout the early 1970s – including extensive community dialogue and research into best practice design for education, amenity provision, landscaping, planning – to render Monarto an attractive city, particularly for the middle-class public servants who would form its core population.

Two townscape plans, showcasing very different conceptions for the city's character, were prepared: one by the German/Australian Boris Kazanski, the other by the Australian John Andrews, whose practice had hitherto been largely in North America. Key players in both designs had recent experience in the Middle East, the UK and the USA.

Either of the two events which killed the Monarto scheme – the election of a new national government antipathetic to the new town program, and revision of population forecasts – could have been its death knell. Today, there is a general cynicism in retellings or analyses of the Monarto plan; critics suggest it was a political tool, rather than a serious proposal. Such an assessment – in the opinion of the authors, in itself unlikely - disregards recognition of Monarto's value as a proving ground for ideas in the 1970s when ecological, environmental and heritage issues gained traction.

Key players in the plan (notably but not exclusively Andrews and Kazanski themselves) have hitherto been silent on their involvement in Monarto; this paper draws on new information from both men and others, as well as archival material previously unexamined by academic researchers. It demonstrates that Monarto was a valid experiment in new city design and a project which can be regarded as a commentary on international new town practice.

## SESSION 6

## HYDROELECTRIC TOWNS IN PORTUGAL

Chair: Sérgio Mendes

César Machado Moreira

During the 20th century, the production of electricity by hydroelectric methods brought about dramatic modifications in the Portuguese landscape. This paper looks at the work produced by architect Januário Godinho between 1945 and 1964 for the Cávado Hydroelectric Company (HICA), and his design on different levels for the hydroelectric complex on the Cávado River, located in the inland region of Trás-os-Montes in the north of Portugal. HICA and the architecture of Januário Godinho address the relationship between technological development and structural conception, and the use of design on a large-scale landscape to overcome the limits of 'modern architecture'. The disproportionate nexus of scale between the operation itself, the obsession of the Portuguese political body and the ethnographic interests of the intellectuals created a clash that may bring about a new understanding of the facts when looked at in relation to the debate on contemporary planning.

Located at a great distance from major cities, very difficult to get to and with very few, if any, resources available, the structures built by HICA necessitated the creation of a series of small, brand-new urban settlements. New settings were designed, which fell somewhere between the two apparently opposed worlds of the village and the hydroelectric power station. Places with economic, social and cultural dimensions such as houses, schools, churches and other social areas coexisted with workplaces, dams, hydroelectric power stations and control centres. The mixed nature of these activities, which were superimposed on the previously existing low-income agricultural structure, created original landscapes as well as an alternative approach to understanding Portuguese post-war architecture.

The methods used to produce this landscape of infrastructure were plain: political will supported by technical knowledge, resulting in the creation of a layout in which a cultural approach would inform the design. But if we are asking two apparently neutral questions, a third very simple one also emerges. What did the landscape of Cávado look like before the construction process began? How did the technicians and architects bring about its transformation? If we take a look at the architectural production that emerged

there, the answer does not seem clear. The question, then, is: what were the models used in the production of this landscape? Can they be found in the midst of the post-war architectural debate?

# **BETWEEN GLOBAL TURBULENCES AND LOCAL MANNERS: THE MULTIPLE LIVES OF THE BATA SHOE COMPANY SATELLITE TOWNS**

**Víctor Muñoz Sanz**

Following the spectacular growth of the Bata Shoe Company and the transformation of its home town, Zlín (Czech Republic) into a field of spatial and social experimentation, the enterprise began a strategy of decentralization and global expansion which led to the replication of an urban and community model in a series of modern ideal industrial satellite towns, built between the years 1930 and 1945 around the globe. This network of cities was split up by force after the World War II; in their maturity, the individual towns have been exposed to the multiplicity of realities that resulted in the post-war geopolitical landscape. Remaining on either side of the Iron Curtain, some cities were still part of the Bata Company, whereas the Communists nationalized some others; some struggled in advanced economies, meanwhile some others thrived in developing countries.

The comparative and systematic study of the network of Bata satellite towns, built in an unprecedented global scale with a strict design consistency in a relatively short period of time, allows for the construction of a comprehensive evaluation of the different lives of a prototypical urban idea, revealing timeless trends and differentiating features that reveal new directions for the critical reformulation of the idea of a company town, with a renewed relationship between design, labour, and capital.

## **SESSION 7**

Chair: Axel Fisher

### **THE PIAZZA AS THE CORE OF THE ITALIAN RURAL SETTLEMENTS IN COLONIAL LIBYA: A THEATRE FOR FASCIST POWER, THE OBVIOUS ANSWER TO LOCAL TOWN PLANNING REQUIREMENTS, OR JUST A PLACE TO MEET?**

**Vittoria Capresi**

The paper aims at analysing the newly-founded Italian settlements in colonial Libya, proposing a critical interpretation of their urban planning and the related architectural solutions adopted. First, the settlements will be considered as the basic element for the physical organisation of the territory, and secondly, as places for the social identification of the Italian rural community newly settled in the colony. The role of the piazza, the central space of every new settlement, will be studied: was it really the theatre where Fascism staged its power, as the material expression of the political control over the territory? Through oral history methods, the first collected narratives will be related to the architecture and town planning of the settlement, to point out the multi-layered functions of the square.

# MODERN HABITAT IN CASABLANCA. APPROPRIATION AND RE-USE

**Silvia Mocci**

This contribution explores the theme of new modern habitats created between the 1950s and 1960s at Casablanca in Morocco. In particular two case studies will be examined: the Carrieres Centrales neighbourhood designed by Écochard and Candilis, Woods and Bodianski and in greater detail, the Derb Jdid district of Elie Azagury.

These two districts fall into the “large” category of redevelopment and re-urbanization of suburban areas of the city in expansion and occupied by large extensions of the bidonvilles during the post-war period. Interest is focused on the forms and new residential models being presented and suggested by the designers: unity of neighbourhoods, the union of patio-style living units conceived to answer the needs and uses of populations coming from rural settings.

More specifically, this contribution intends to look more closely at the settlement experience provided by Derb Jdid describing the entire planning process through the use of archive studies from the Azagury fund at the IFA in Paris. The processes of appropriation and modification of the dwellings carried out by the inhabitants will also be described; transformations that have affected different levels of scale, from the overall urban to the individual residence.

In describing the whole settlement history of the district, from its original conception up to the current modification processes, the intention is on one hand to reflect on the planning interpretation that the designers gave to the theme of «l'habitat pour le plus grand nombre» in the context of the strong local and identifying character such as North Africa, and on the other hand on the real validity of certain positions taken by the planners themselves and the capacity of design to sustain the motives of time and social changes.

# THE EXPERIENCE OF THE COMMUNIST SETTLEMENT. THE DANWEI DAYUAN AND THE EVOLUTION OF URBAN FABRIC OF CHINESE CITIES

Zhu Tan and Zhen Chen

During the primary period of China's communist experience, Danwei dayuan (work-unit compound) was invented as a settlement archetype and became an important unit to form the city.

From 1949, the foundation of P.R.C., the Communist Party of China which led by Mao Zedong started the experience of construction a country of communism. Danwei dayuan appeared as a new archetype of urban structural unit under the combined influence of the planned economy system, the Soviet experience and communistic policies. It was an evolution of the Chinese traditional courtyard architecture system and at the same time referred to the related concepts which were prevalent in China at that time, such as the idea of neighbourhood unit. Danwei dayuan was enclosed by wall like a giant compound which followed the idea of traditional courtyard building architecture system and worked as a micro city. It gathered the people nationwide and integrated all the necessary facilities of their daily life. The city then renewed by assembled this kind of self-reliant and mix-used Danwei dayuan, which help the cities to display an agreeable order and pattern while also raised some problems.

Nowadays, the age of Danwei dayuan is almost ended. They gradually vanish form the city. The Chinese cities are evolving continuously, while urban framework formed by Danwei dayuan is context of the new development, and the advantages of the archetype of Danwei dayuan can still provide many useful ideas for the enhancement of contemporary cities.

**SATURDAY, 24 MAY**



## KEYNOTE SPEAKER

# FOUNDATIONS AND FUNDAMENTALS. URBAN CENTRALITIES FOR EUROPEAN SUBURBS AND NEW TOWNS: A COMPARISON OF CASE STUDIES FROM CHINESE POST-METROPOLIS TO NORTH-AFRICAN “PURE DESERT”

**Guido Morpurgo**

Urban and architectural design –intended as a relation between the fundamentals emerging through a dialogue with the place and a definition of new foundations based on regulation criteria and measured settlements- can cross different contexts of contemporary anthropogeographic landscape, according to a principle of critical intervention on cities and territories.

In Europe the urban sprawl to increasingly extended, mono-class and typologically poor suburban neighbourhoods can be managed by the foundation of new urban centralities, a reorganization of built-up areas in order to enhance new relations between type, function and signification.

In China, the ceaseless development of the post-metropolis – lost the idea of a urban form for a settlement totally forgetful of the cultural fundamentals of historical cities- corresponds to a social division – both voluntary and imposed- and the subsequent emergence of increasingly extended and impassable ghettos. A possible hypothesis to face this new geography of physical fragmentation and segregation is the rearticulation of settlements, based on the foundation of new towns, limited in size, as prototypes of a possible urban future organized according to a multipolar principle of territorial reorganization.

Some north-african countries have recently promoted advanced studies to relocate nomadic and migrant people: the result is the hypothesis of a system of new settlements, founded on what William Morris defined the extreme boundary of architecture: the pure desert.

The report proposes a reinterpretation of the present issues through a comparison of some of the case studies experienced over the past decade by Gregotti & Associati office: the design process as a whole directs the foundation of new settlements based on a principle of morphological variation of the urban order and the architectures within it.

The idea of a urban form founded on the relation between territorial and architectural scales is both a working method and a theoretical base for the project: an active response to the signification of urban design and a reconsideration of the role of the architect as an interpreter of the living conditions within the post-modern urban environment.

## SESSION 8

Chair: José Semide

# CITIES'S STRUCTURAL MATRIX FROM 1950'S TILL TODAY: BETWEEN SUPERLATIVE AND PALLIATIVE

David Leite Viana

It will be presented a structural overview through urban proposals developed within the second half of the 20th century and the transition to the new millennium, seeking to establish a framework of the role of structural matrixes in the morphological redefinition of cities, from typological perspectives to topological approaches. To achieve this purpose, it will be used a methodology that will imply bibliographical review, cross-references about urban utopias that contribute to important “turning points” in terms of urban theory in the second half of the 20th century, and a brief comparative analysis of urban case-studies from the work of: Archigram; Yona Friedman; Eckhard Schulze-Fielitz, Rudolf Doernach; Engelbert Zobl; Stanley Tigerman; Vernal Tyler; Lobbeus Woods; Belgian team Kinshasa; Norm Nixon; Wolf Dieter; Gunther Domenig; Gunther Feuerstein; Carl Pruscha and others.

Cultural and social transformations, scale shifts and technological advances pushed urban paradigms towards mega-structures, which configured urban utopias under a post-modern urbanism. The path to redefine systems, networks, urban space consumption, uses and appropriations was then characterized by an engaging, emergent pop culture where individualism, interpretation, indeterminacy, fragmentation and kinetic perception of the urban space reconceptualised cities' structural and symbolic elements. So, the main goal is to grasp how cities' structures evolve into prolific and increasing layouts of flows, interchange, connectivity and a demand for mobility, a process that contributed to generate different urban logics from the ones provided by the traditional and stabilized relationships between typology and morphology, which have drawn the major urban forms of historical cities. Therefore, the aim is to determine how the dissolution of compact, coherent and homogeneous urban fabrics leaves space to understand cities not as a linear text but as a diffuse, splintering and heterogeneous urban structure.

Amongst this panoramic outlook, it is displayed how the legacy of large scale structures was overcome by contemporary non infra-structured and extensive

urban territories, characterized by uncertainty and unpredictable processes of transformation. The ultimate purpose is to build a diachronic timeline, where it is shown how to connect the superlative structures of urban proposals from the last quarter of the 20th century to today's palliative strategies that improve fragile urban structures, based on multiplicity and micro scale upgrades.

# UNCERTAINTY IN CONTEMPORARY URBAN PLANNING CONCEPTS AND METHODS: WHAT WE (STILL) CAN LEARN FROM GARDEN CITIES AND NEW TOWNS

**Bruno Moreira**

Uncertainty is a keyword of the 20th century urban history. Wars, depressions, crisis and social and technological advancements have showed us how deep the changes in economic, political and social systems were responsible for the emergence of urban planning and management practices and how their uncertainties became deep embedded within them.

Uncertainty grewed with the increased tendency for fragmented systems – of spaces, society and information, which compose our contemporary “third cities” (Borja 2003) – and with the increased mobility of goods, information and people (Ascher 2010) as conflicts and incompatibilities arose. Several authors created new names for these relational systems in an effort to think beyond the canonical city – Gottmann's Megalopolis, Hall's Disappearing City, Garreau's Edge City, Corboz's Ippercità, Koolhaas' Generic City, Ascher's Metapolis, Sieverts' Zwischenstadt and Indovina's Diffuse City, among others. Concepts and methods are thus being questioned as they do not efficiently respond to these territories' needs: the notion of limits (morphological, administrative, symbolic, disciplinary), the efficacy of formal planning, the hierarchical and linear planning systems, to name a few. Yet, these concepts still inform planning and urban management practices, making them unresponsive to the uncertainties and opportunities of our contemporary territories. As a response, other concepts are emerging – informality, flexibility, networking, hybrid and intermediary systems – as a better basis for a strategic, incremental and heuristic “new urbanism” (Ascher 1991).

This paper is part of a preliminary PhD research on the flexibility of the instruments of territorial management and their efficacy on regulating the contemporary urban space, and will focus on the uncertainties present on the post-war New Towns experiences and on the influential Garden City movement, and on what contemporary urban planning – as a process still incomplete and open to different interpretations and appropriation processes – can learn from them.

## LIFE VERSUS ARCHITECTURE. RATIONALIST IDEALS FACING POPULAR TASTE, FROM PESSAC TO MALAGUEIRA

Eduardo Fernandes

The clash between the aesthetics produced by rationalist ideals of the modern movement and the taste of the dwellers is always present, in urban extensions designed in the XX century.

In plans based on single-family housing, this clash led to interesting phenomena of physical transformation of the proposals of the architect, creating hybrid constructions in which it is difficult to recognise the original design.

The “Quartiers Modernes Frugès” (1924-27), design by Corbusier in Pessac (near Bordeaux, in France), is a famous case study of this phenomenon. Commissioned by the French industrial entrepreneur Henry Frugès, it began as a very ambitious plan that aimed to build one hundred and thirty-five houses disposed around a commercial square, but was not completed according to the original plan. Furthermore, some of the houses were altered by the dwellers in a way that was completely unexpected to Corbusier, which commented on the fact with the famous ironic statement: 'It is life that is always right and the architect who's wrong.'

In Portuguese architecture, mainly in the SAAL Program, we can find interesting examples of this confrontation between life and architecture. However, between the experience of the interventions in Porto and the later construction of the urban extension in Malagueira, designed by Álvaro Siza nearby Évora, we can find a very important change: in the second case, the posture of the architect is different, aiming to work with the uncertainty of the final image of the dwellings and leaving to the future owner the possibility to adapt it to his own taste. This different posture makes a great difference in the final results of the intervention as a whole, allowing it to become diversified and alive.

## SESSION 9

Chair: Nuno Travasso

# CHANDIGARH. THE CITY BEAUTIFUL. ONE OF THE GREATEST EXAMPLES FOR MODERN PLANNING

**Sunita Vimal**

The aim of this research is to understand the present scenario of Chandigarh and its future growth into a metropolitan city. Many debates are recently going on in Chandigarh itself, within India and internationally.

We are well aware that the purpose of planning Chandigarh was due to the need to build a new capital city for Punjab after the partition. Nehru wanted to create a symbol of the Independent India with the concept of modern city planning. Many international and national professionals formed a design team which was responsible to build the new capital city.

The city that was initially planned for approximately 500,000 people, for exclusive administrative purpose. Chandigarh has been developed in different phases from its conceptualisation. The major features of the city are the sectors which are totally independent in nature. The core of the city centre is located in sector 17 where people enjoy their evenings and weekends. The Leisure valley is a long stripe of gardens which crosses the city from north to south and gives Chandigarh a direct connection to nature.

The city population is of 1,025,682 inhabitants and there is hardly any space for further extensions because the city has strict planning bye laws. Any change of skyline and growth of the city causes debates between town planners, urban planners, architects and the government.

India and its population is growing, its metro cities are developing very fast. High-tech infrastructure is under planning and construction process. Chandigarh is facing a huge problem of traffic congestion because of increasing number of cars. There are many proposals to solve the growing problems of the city due to increase in population and urbanisation of the city, but due to strict bye laws and scarcity of land development of the city is passing in a great difficult phase.

# WHEN ARCHETYPES GENERATE UNCERTAINTY: THE CASE OF THE SCATTERED METROPOLIS

Lee Christopher Roland

In the Low Countries, most of cities have been established during the Middle Ages, while the density of their location at large scale is identifiable since at least the early Renaissance – notably on the maps of the Dutch cartographer Jacob van Deventer. During the modern period, some concepts have locally influenced the configuration of Belgian urban cores – for example, the Leopoldian Park System and the Garden City movement in Brussels, or the modernist proposals for the Borgerweertpolder in Antwerp. However, few of them explain the evolution of Belgium after World War II, most specifically the spread of urbanization that gave rise to a large-scale urban configuration formed by major Belgian networks and centred on Brussels. It's thus the land administration process in itself that should be investigated, rather than the influence of any theoretical figure or archetype. By focusing on open spaces and infrastructures – first by commissioning railroads and waterways, after by creating a Road Fund (1955-1964) and by promulgating strong planning laws (1948, 1959, 1962) –, the instituted actor-network and its borders created indeed a 'scattered metropolis' despite the existence of a radio-concentric land division system. If, at local scale, Belgian cities seem to refer to archetypal configurations, at large scale, they are therefore no longer singular, local territories but administered ones, at the bidding of administrative circumscriptions that do not correspond to their physical boundaries. In other words, they are united in being subject to the effects of the State and to its capacity to shape forms in situ. As a consequence, in the present case, there is no point in talking about 'cities' in meeting the theoretical and environmental challenges of the urbanization process. The difficult mixture of morphology, topography and politics it represents imposes an empirical approach of the articulations between 'physical territories' and 'administered territories'. Such an approach aims to elucidate an ongoing anthropological contradiction of Modernity in a globalizing world: how to deal with spatial and conceptual processes of delineating in a context of struggle for legitimacy and resources?

# PROSPECTIVE APPROACH: A TOPOGRAPHICAL LINEAR TOWN IN WALLONIA

**Bertrand Terlinden**

Since its foundation in 1973, Louvain-la-Neuve (LLN) (a New Town established around the French-speaking Catholic university campus, to which we shall refer as a feminine entity) has been explicitly considered – by her first settling managers - as a small neo-medieval town enclosed in a rampart-like beltway, acting as an isolated competitor and colonial civilization holder in her region (Walloon Brabant). Located at the very heart of the Brussels metropolitan area's richest suburban area, LLN, has now grown as a university and as a comprehensive residential and industrial area. Due to her extraordinary attractiveness she is today bursting at the seams and unable to accommodate the rising demand for housing and activities –which have been untidily transferred to surrounding rural areas suffering of a lack of public facilities and of suitable planning policies for future development.

Our hypothesis is that the original planning scheme for the Louvain-la-Neuve new town (avant-projet de plan directeur –May 1969) and, to a certain extent, her actual structure, which is partially based on this first sketch, contains another urban idea of the city, alternative to that of the enclosed neo-medieval town. Explicitly influenced by the paradigmatic linear pattern of the English new town Hook, this alternative layout principle could initiate more intimate and balanced relationships between the city, its countryside and its landscape. Drawing on this linear pattern would allow addressing the ongoing mutations of this now-not-so-new town and of her region, taking the countryside into higher consideration and preparing other tracks for this new town to play a legitimate sub-regional role.

## CURRICULA VITAE

**Alexandra Cardoso.** Architect (FAUP, 1994). Integrated researcher and board member of Centro de Estudos Arnaldo Araújo (CEAA), R&D unit 4041 (FCT); Director of CEAA (2003-2010). Has been working with Pedro Vieira de Almeida since 1995, in the study of the work of some Portuguese architects, such as Viana de Lima, Arnaldo Araújo e Octávio Lixa Filgueiras. From these studies resulted in several exhibitions and publications. Member of the projects The "Popular Architecture in Portugal." A Critical Look (PTDC/AUR-AQI/099063/2008 / FCOMP-01-0124-FEDER-008832), Southern Modernisms (EXPL/CPC-HAT/0191/2013) and Portuguese Participation in CIAM X (ESAP/2013/P06/SATH). Last related publications, include the paper O Inquérito à Arquitectura Regional: contributo para uma historiografia crítica do Movimento Moderno em Portugal (with MH Maia, 2012), the books Dois parâmetros de Arquitectura Postos em Surdina. Leitura crítica do Inquérito à arquitectura regional. Caderno 3 and 4 and the edition of the To and Fro: Modernism and Vernacular Architecture (all three with MH Maia and JC Leal, 2013).

**Alfonso Álvarez Mora.** Architect, 1972, by the School of Architecture of Madrid. Ph.D. in Architecture from the Universidad Politécnica de Madrid, 1976. University Professor since 1984, with arrival at the University of Valladolid. Fellow of the Ministry of Education, with stays at MIT in Cambridge, USA; Research in Paris, the University "La Sapienza" of Rome, Researcher of the National Plan for Scientific Research, Development and Technological Innovation. Director of the School of Architecture, Valladolid from 1993 to 1996. Director of the Graduate Institute of Urban Studies at the University of Valladolid. Director of the magazine "Ciudades" (Cities) published by the Urban Institute. The three recent books deal with the "Geography of Don Quixote. Landscapes and Places in Cervantes's Narrative", "The Historical Construction of Valladolid. City Project and Logic of Class", and "The Myth of the Historical Centre. The Prestige Space and Inequality". Currently I am doing a research, I + D + I, concerning the residential impact in recent years has occurred in the historic centres that are spread over the territory of the State, as well as evaluating the Urban policies that have been implemented.

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**Axel Fisher** is a licensed – proudly non-practicing – architect (Register of Milan, Italy) living between Paris and Brussels. He

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**Jorge Ricardo Pinto** (Porto, 1975) holds a major degree in Geography and a MSc in Urban Geography, and is currently attending a PhD programme in Geography at the Faculty of Letters of Porto University. He has been pursuing his teaching career at Escola Superior Artística do Porto – ESAP (Arts School for Higher Education in Porto) and at the Instituto Superior de Ciências Empresariais e do Turismo – ISCET (Tourism and Business Sciences Institute for Higher Education) in subject matters such as Urban Geography, Tourism Geography, Urbanism and Urban Planning, as well as having lectured at the University of Porto in the curricular unit of Urban Geography of Porto. As a researcher, he works at two research centers - CEGOT and CIIC - where he coordinates the project "CHIP - Culture, Heritage and Identity in Porto". Jorge Ricardo Pinto's academic investigation has been

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Compostela, ANTE/USC/AGE, 2014, pp. 131-146 (adaptação do texto com igual título, publicado em 2013 no livro “Nova vida do velho centro, nas cidades portuguesas e brasileira”, coordenação com Encarnação Beltrão Sposito). Articles, *Políticas públicas e urbanismo no tecido antigo das cidades europeias*, «Cidades», vol. 9, n° 6, 2012, pp. 118-143. *Urban policies, planning and retail resilience*, «Cities», 2012 (versão on-line disponível em 25 de Dezembro). Texts in proceedings: *Quantos centros tem o centro? Tempos e espaços no Porto, entre o centro de região urbana e os lugares do centro da cidade*, org. de José Rio Fernandes, Lucio Cunha e Pedro Chamusca, Atas do 1º Encontro do CEGOT “Geografia & Política, Políticas e Planeamento”, Porto, 2013, pp. 226-237 (com Pedro Chamusca e Jorge Ricardo Pinto). *Subúrbio, na relação entre planeamento e urbanização: o Porto na transição de século (XIX-XX e XX-XXI)*, org. de José Rio Fernandes, Lucio Cunha e Pedro Chamusca, Atas do 1º Encontro do CEGOT “Geografia & Política, Políticas e Planeamento”, Porto, 2013, pp. 319-331 (com Jorge Ricardo Pinto e Pedro Chamusca). *Dinâmicas recentes e urbanismo na área central do Porto. Morte, resistência, resiliência e elitização no centro histórico e na Baixa*, in *A nova vida do velho centro, nas cidades portuguesas e brasileira*, Porto, FLUP/CEGOT, 2013, pp. 83-96 (com Pedro Chamusca). *Política, planeamento e projetos na cidade do Porto do século XXI* (com visita a finais do século XIX), Org. Teresa Pinto Correia, Virginia Henriques, Rui Pedro Julião (2013), X Congresso da Associação Portuguesa de Geógrafos, pp. 442-447 (com Pedro Chamusca e Jorge Pinto). *Inovação e estrangeiros no Porto a oeste do centro: do urbanismo do século XIX às dinâmicas e ações recentes*, Org. Teresa Pinto Correia, Virginia Henriques, Rui Pedro Julião (2013), X Congresso da Associação Portuguesa de Geógrafos, pp. 462-467 (com Jorge Pinto e Pedro Chamusca).

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development of settlements, of the land resources, of the evaluation of the transformation demand and of the safety status of the territory, hypothesizing new reliable and desirable scenarios. Since 2010 she has been teaching Economics influence and city planning, Regional planning and Laboratory of Architectural Design at the Polytechnic of Milan-Campus Bovisa and Campus Lecco.

**Nuno Travasso** (Porto, 1980) is architect, teacher of “Territórios e Formas Urbanas” from the Integrated Master in Architecture (MIARQ-FAUP) and PhD student (PDA-FAUP). Is a researcher with interest in the role that the project of architecture plays in the process of shaping the contemporary urban space, with special focus on the extensive urban areas. Between 2007 and 2010 integrated the research project “Políticas Urbanas II: Transformações, Regulação e Projectos” developed in the CEAU-FAUP, coordinated by the Prof. Nuno Portas and commissioned by the *Fundação Calouste Gulbenkian*. We was collaborator of the architect José Fernando Gonçalves (2003/2004 e 2007/2010), having also professional practice as an independent architect.

**Paolo Marcolin.** Graduate in architecture by the Polytechnic of Milan. Master and PHD in Urban Project and Planning by the Faculties of Architecture and Engineering of Oporto University. Research grants from Oporto's Metropolitan Council (Master degree) and the Portuguese Foundation for Science and Technology (PHD). Director of the Department of Architecture of the Escola Superior Artística do Porto, teaches Urban Design, Urbanism and Urban Economy. Throughout his career, he has collaborated in several national and international projects and competitions and coordinated groups working in urban projects, planning and management.

**Paul Walker** is a Professor of Architecture at the University of Melbourne. Walker's recent research has encompassed mid-twentieth century architecture in Australia & New Zealand, and contemporary and colonial museum architecture. With collaborators at three universities in Australia, the University of Toronto, and Boston University, he is currently researching the work of the architect John Andrews in Canada, the United States, and Australia.

**Ricardo Trevisan.** Architect and urban designer by University of São Paulo (1998), with Masters in Urban Engineering by Federal University of São Carlos (2003) and Ph.D. in Architecture and Urbanism by University of Brasília (2009), with - doctoral

internship at the École d'Architecture Paris-Malaquais (2007-2008) and at the Istituto Universitario di Architettura di Venezia - CAPES Thesis Award 2010. Currently professor in the School of Architecture and Urbanism at the University of Brasilia. Researcher member of the "Laboratory Studies of the City" (LabEURbe); participant of the Research Group "Architecture and Urbanism of the Region of Brasilia"; author of the research project "Atlas of New Cities in Brazil Republican".

**Roland Lee Christopher.** Belgian architect with a degree in architecture from I.S.A. St-Luc Brussels (June, 2006). In 2005, he studied as an exchange student at McGill University, Canada. Following his professional training periods in Belgium (2006-2009), he began to work as a researcher and teacher in the Faculty of Architecture, Architectural Engineering and Urban Planning, LOCI at Catholic University of Louvain where he recently graduated with a Ph.D. in Architecture and Planning (July, 2013). His thesis is entitled 'Brussels as palimpsest. Epistemology of an ecology'. It was conducted in collaboration with Environment Brussels and the Brussels-Capital Region, in the framework of the convention Prospective Research for Brussels (Innoviris). The research consists of a graphic and cartographic investigation of the Brussels agglomeration. Most specifically, it highlights the articulations between 'physical territories' – determined by soils, fluxes and populations – and 'administered territories' – defined by borders as geographically situated social abstractions.

**Sérgio Mendes** was born in Oporto in 1962. He had his degree in Architecture by the Higher School of Arts of Oporto - ESAP in 1986. He is a lecturer, with the rank of Assistant, at the Master in Architecture of ESAP since 1996. In 2001 he obtained the recognition of the *Sufficiency Researcher* in Architectural Composition in the Escuela Técnica Superior de Arquitectura, University of Valladolid, Spain, where he is completing his PhD. Has a lecturer at the ESAP, he participated and organized several conferences in this school, and gave a lecture in 2014 on *The Revision of the Master Plan of the University of Aveiro*, at the Faculty of Architecture of the University of Oporto. He has integrated the Documentation Centre of Construction of ESAP and develops research in the area of Construction and Technology. He was vice president of the Cooperative of Higher School of Arts of Oporto - CESAP. He exerts in Liberal Profession since 1986, having conducted numerous architectural projects of diverse scope. Simultaneously, he developed several projects in the Portuguese Institute of Cultural Heritage in 1987 and was a collaborator of Alcino Soutinho between 1988 and 1991. Some of his works have been published in national magazines, and he has also participated in several exhibitions of architecture.

**Siim Sultson** (1972) Estonian Entrepreneurship University of Applied Sciences; Associate Professor of Art History. 2013-2017 Tallinn University of Technology, PhD Student. 1999-2002 Tallinn University, MA in art history. 1995-1999 Estonian Academy of Arts, BA in art history. 1991-1993 Tallinn University of Technology, civil engineering. Estonian Entrepreneurship University of Applied Sciences; Head of The Chair of Creative Industries. Research activity: Master's Degree, 2002, (The Implementation of Stalinist Stately Urban Ensembles in Estonia, and the Role of Harald Arman), Tallinn University. PhD Student, (Stalinist urban ensembles in North-eastern Estonian cities: determination, typology and potential as factors of the cities spatial development), Tallinn University of Technology.

**Silvia Mocchi.** (1978) PhD, Architect and Engineer, Teacher of Lab project "LabTesTi-Tessuti e tipi dell'habitat" and Temporary Research Fellow, title "Progetti per la riqualificazione degli ambiti di margine degli abitati delle aree interne tra centri storici e paesaggio rurale", Department of Civil, Environmental and Architecture, University of Cagliari. Winner of architectural competitions (European 9 - European 10). Main research themes: habitat, relationship between traditional and contemporary architecture.

**Sunita Vimal.** (1978) Bachelor and Master degree in Architecture from Polytechnic Milano / Italy (2006). PhD in Architectural Composition from Polytechnic Milano/ Italy (2012). PhD Erasmus Mundus India 4 You Exchange Programme in Ahmedabad/ India (CEPT University- Doctoral Programme, 2011). Assistant in Architectural Planning (Prof. Daniele Vitale) Research, Teaching, Consultancy & Publications of research documents (articles& booklets). Professor in Architectural Design and Town planning - College of Architecture at Bhabha Technical Campus (Punjab/ India).

**Victor Muñoz Sanz** received an Architecture degree from the School of Architecture of Madrid in 2006, and in 2011 a Master of Architecture in Urban Design, with distinction, from the Harvard Graduate School of Design; upon graduation he was awarded the Druker Traveling Fellowship. He is a PhD Candidate in the Architectural Design Department of the School of Architecture of Madrid, and currently is a guest researcher at the Faculty of Architecture of TU Delft, the Netherlands. His doctoral research focuses on industrial landscapes and urbanism.

**Victoria Jolley.** RIBA MPhil FHEA (2009 - ongoing). Lecturer

in architecture at the University of Central Lancashire. Current research (2013- ongoing): LAN-PLAN, Phd (part time), Manchester School of Architecture. Recent research: (2009). Lee House, MPhil, Manchester School of Architecture; (2002-3). Manchester Society of Architects and RIBA Research Trust. Exhibitions: (2009). Manchester Arts and Design Festival: Motorway/Waterway, a conceptual project to design an installation to facilitate and promote access to the river at Northenden Riverside Park. Publications: Jolley, V (2012). 'An unsuspected skyline rival: Lee House, Great Bridgewater Street, Manchester (1928-31), Bulletin of the John Rylands University Library of Manchester, 89:1, 161 – 177.

**Vincenzo Riso**, architect (1986-1994) Corso di Laurea in Architettura. University of Florence, Italy. PhD in architecture (2003-2006) by the University of Florence, Italy. Associate Professor in the School of Architecture of the Minho University. Professor of the Urban Laboratory in the same University. Author of several scientific publications and supervisor of PhD and Master Thesis at the University of Minho. He is also the president of the School of Architecture of the Minho University since 2012.

**Vittoria Capresi**. Studied architecture in Florence and Berlin. From 2002 until 2011 she works at the Technical University of Vienna, department of History of Architecture and Building Archaeology, where she achieved her PhD with a research on the Italian settlements built in colonial Libya, published in Italian and English in 2009. In 2011 she moves to Egypt, as Associate Professor of History of Architecture at the German University in Cairo. As cofounder of baladilab in 2011, a spin-off project associated to the GUC, she currently works on projects with students to discover and activate the hidden potentials of Cairo and raise awareness for the architectural heritage of the city [www.baladilab.com](http://www.baladilab.com).

**Walter Peters** is an architect, architectural and urban historian, editor of a professional journal, and Professor of Architecture at the University of the Free State in Bloemfontein, South Africa.

**Zhen Chen**, was born in 1979, national certified urban planner of China. After getting Ph.D degree in architectural composition in Politecnico di Milan, currently work in the School of Civil Architecture of Politecnico di Milan as contract professor, teaching optional course “The Project of Architecture and City in China”. He published several articles in European and Chinese Journals and proceedings. He had more than 10 years professional

experiences in China and Italy, since 2009 he has been the co-founder of RECS Architects studio.

**Zhu Tan**, was born in 1981, PhD, architect and urban planner. She received architecture education in Beijing University of Technology and earned bachelor's degree in 2004 and Master's degree in 2007. Afterward she moved to Italy and got the PhD in Politecnico di Milano in 2013. She started her professional experience since 2003, and has worked in both China and Italy. Now she is the Collaborator in Architectural Design Studio of Department ABC of Politecnico di Milano and the architect of RECS Architects studio.

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