Vertical City International Conference – Exploring and thinking the vertical dimension of urbanisation in globalisation and climate change

For the Scientific Committee, Manuel Appert

Reminder

Deadline for abstract submission: April 30th , 2015
Answers to applicants: June 8th, 2015
Full presentations due: October 1st, 2015
Place and date of the conference: Lyon (France), 25-27 November 2015

1. Context: rethinking urbanization with the vertical dimension

The conference aims at investigating the accelerating verticalisation of urbanisation, when towers are multiplying throughout the world, when new agricultural spaces –be they "natural" and/or public- are set up high up, and when transport networks are freeing themselves from the surface and underground of cities. The resulting intensification of urbanization, planned or not, is locally increasing the pressure on underground resources, contributes to alter physical circulations and human flows, as well as re-interrogates in a broader way the production and making of urban environments in the context of climate change and globalisation.

At the same time, new theoretical propositions are aiming at formalising the urban volume and at renewing the analytical frameworks of the city in its three dimensions (Kaika, 2010; Graham, 2013, 2014; Harris, 2014). Urban studies largely focused on the analysis of cities in their horizontal dimension, while producing theoretical frameworks primarily based on the two horizontal dimensions of the geographical space (outside the landscape-mediated approaches). With the accelerating verticalisation of urbanization, the third dimension of the space of urban societies has to be investigated, as well from the planning point of view as from the approaches and tools at our disposal. The renewal of thoughts and actions on cities necessitates to cross disciplinary focuses on the horizontality/verticality couple, and to enable the cross-fertilisation of practitioners' experiences and academic researches.
In an exploratory and multidisciplinary perspective (human and social sciences, engineering sciences, architecture…), able to deal with the emerging issues associated with urban verticalisation, we propose to create the conditions of a dialogue between researchers and practitioners, which enables to (re)investigate or to further the thoughts on the vertical configurations and dynamics of and in the city.

Even if several researches have already been conducted according to a vertical point of view, they have largely retained thematic focuses, disciplinary approaches and did not necessarily provide systemic and cross-cutting perspectives. In architecture and engineering sciences, attention was focused on the supposed environmental sustainability of towers, envisioned as multifunctional, self-sufficient and/ or green (Yeang, 1996 ; Ferrier, 2007), with no consideration of their politics. On the reverse, the study of the urban volume in urbanism and of the landscape stakes of the material transformations of cities went with few economic considerations (McNeill, 2002; Tavernor, 2007; Appert, 2008; Appert and Drozdz, 2010); such

studies mostly focused on the strategies of stakeholders, in the perspective of a social demand of contested landscapes (Luginbuhl, 2001). The question of uses –particularly the access to the superior strata of the vertical city- has primarily been built on Lefebvre's "right to the city" theoretical framework, critically interrogating property, accessibility, and control of spaces at heights (Ayoub, 2009; Graham, 2011; Graham and Hewitt, 2013). The latter approach progressively led researchers to investigate the issues of concentration, segregation, and social fragmentation in their vertical dimension (Cartier, 1999; Appert, 2012; Harris, 2014; Charney and Rosen, 2014). The value attributed to height then becomes decisive for developers as for populations and local authorities, as well from a monetary point of view as from a symbolical one (Han et al., 2005; Moon et al., 2010). In the same way, construction and financing costs, technical feasibility, and soil characteristics might influence the value of buildings, accessibility at various scales (from the local to the global), and indirectly influence the vertical and horizontal distribution of population and activities.

Except technical manuals on public or private vertical transport infrastructures (Strakosch and Caporale, 2010), few publications consider the links between vertical circulations –over and under the surface- and the social and environmental sustainability of contemporary urbanization, even though there are some already discussed utopia and visions (Gottmann, 1966; Ford, 1994; Pow, 2014). Air transport flows and the constraints and risks they weigh on urban societies have been studied in a multidisciplinary way (Cwerner et al., 2009). In the perspective of the compact and dense city, the articulation between transport networks and urbanisation has also to be vertically considered.

Often reduced to its poetical or purely material or hydrosystemic dimension, the underground space is now studied with a larger integration of its technical and political aspects (Barles and Guillerme, 1995). The compact city paradigm is today re-investigated; the intensive use of the underground (infrastructure, pollution, changes to water networks) –associated with an urbanisation process in search of higher densities- confirms the necessity to consider underground space not only as a capacity stock, but also as space of mobilities (Hoeven Van der, Nes Van, 2014), and a disputed resource to regulate (Barles and Jardel, 2005; DEEP CITY Project ; Parriaux et al., 2010 ; Projet Ville 10D; Elden, 2013). In the air, researchers have mostly been working on climate issues. The identification and the evaluation of micro-climates linked to anthropisation (Dubreuil et al., 2008) have been studied, as well as the circulation of pollutants emission according to the elevation of buildings and to urban canopy configurations (Maignant, 2007). In the perspective of a sustainable development, the conference aims at grasping in a systemic way (reflection, production, making of and uses of the vertical city in three dimensions), in a multidisciplinary way, and through the contribution of the experience of urban "professionals", the vertical distribution of people and activities, the mobilities which are linking them, and the biophysical processes –modified by anthropisation- which are unfolding and make up their environment and place to live.

2. Themes of the expected contributions

Contributions should deal with subjects, practices, and dynamics that have a clear vertical dimension or that re-investigate subjects, practices, and dynamics usually envisioned in a two-dimensional space.

We are looking for thematic propositions, dealing with the city at street level, above and/or underground spaces, both empirical and theoretical, on varied urban case studies, all over the world.

When possible, propositions should deal with the modes of construction and with the nature of the scientific hypotheses proposed, and more specifically investigate the opportunities and limits of transferability of hypotheses usually developed for the horizontal city (gradients, discontinuity, concentration, dispersion…) to the vertical dimension. Contributions will enrich plenary but also parallel and panel sessions.

A. Vertical urbanisation and environment: risks and pressure on resources and opportunities

Theme A allows to discuss the links between vertical urbanisation and environment through geo-physical circulations (air, water), the risks induced by the growing verticalisation of urbanisation, the pressure on natural resources and their management. It therefore confronts researchers working on the urban underground or surface, enabling to re-articulate horizontality and verticality to approach not only the

induced risks, but also the opportunities offered by vertical urbanisation processes. Verticalisation might indeed participate in the reduction of space consumption in urban peripheries and contribute to add value to inactive spaces (urban roofs) through their transformation into potential resources (ecosystemic services…).

B. Representations, measures and imaginaries of urban verticality (including panel session)

The second theme investigates representations (lato sensu) of the vertical city, above and underground. Reflections might deal with the mediums of representation, their perceptions or on the measures and technical tools developed to assess it. The second perspective, more cultural and/or artistic, focuses on the production and reception of the representations and imaginaries of the urban volume through the arts as well as literature, and also the technical innovations that enable to see the city through its volume or the air (air transport). It sheds light on the contexts of production, the representation modes of the vertical city and their reception by individuals and groups through time and space.

The second perspective investigates the question of the visualisation tools and of their use by various types of actors dealing with the city: how do such tools participate in the interactions between actors? Does the growing use of bird-eye views, digital 3D models, profiles… transform the imagibility of the city and hence its projection? How are these 3D perspectives articulated with 2D views?

C. Living (in) the vertical city: between discourses and practices of sociabilities

The "living (in) the vertical city" theme is envisioned according to two approaches: people's lifestyles and usages of space in the vertical city and the discourses and strategies of promoters of high-rise residential, office and hotel environments (public policies, real estate developers and architects). Social and family relations, practices of domestic and collective spaces in vertical housing and work places are topics which allow exploring at once the perceptions and the ways of living (mobilities, sociabilities in places of residence and of work and uses of domestic and public spaces). Contributions on past and present living conditions, in private and public towers (such as French "grands ensembles") are welcomed, as well as questions linked to the relation to height in physiological and psychological terms.

The second approach allows discussing the role of expert and political discourses, of regulatory and economic constraints associated with vertical housing and working, to understand their impacts on the strategies of real estate players on the one hand and on the residential experience on the other.

D. Living together in harmony in the vertical city: solidarities, social grouping, and control

Urban verticalisation reveals new forms of public space privatisation, no longer at street level only, but also up in the air. The access to such places is restricted and revives the question of the right to the city. Verticalisation translates or also allows avoidance strategies for specific populations, social grouping, securing processes, and sometimes also control of the urban space. How is socio-spatial fragmentation seen in its horizontality augmented with vertical discontinuities? How is it possible to coexist in a heterogeneous and vertical city? From the Smithsons' "streets in the air" (1952) to gated condominiums, what ideas is it possible to develop on the possibility of a harmonious community life in vertical urban forms: what kinds of freedom? What kinds of solidarities? Which collective groups?

E. Urban functions and markets in the vertical city

Traditionally studied in their horizontal dimension, urban functions are also adjusted to verticality. According to which modalities? Urban real estate markets, mostly considered as flat, are seeing their values adjusted to technical capacities and to the views, the distinction or protection strategies that stimulate the verticalisation of real estate assets.

How do towers participate in or reveal urban location choices? How do they modify economic rents? How do they contribute to economic interaction at various scales? Seen more and more as financial assets, towers also participate in fiscal and financial optimization strategies of financial operators. Their locations, forms and functions fall also within the financial markets systems.

F. Moving in the vertical city: re-imagining accessibility and sustainability

This theme is dual: the analysis of vertical mobilities and networks, as well as of planning policies, which, in the name of densification, rehabilitate the construction of towers. Daily mobilities are no longer horizontal,

they have become more than ever vertical thanks to technical networks, which allow using the various strata of the urban volume (car parks, metros, travelators, elevators, gondolas…). While providing an access to places in 3D, such infrastructures and services might put constraints on vertical urban development (air corridors…), draw new spaces of flows and participate in redefining mobilities and more largely exchanges between individuals. Second, solutions developed in the perspective of a compact city to minimise horizontal movements have to be re-investigated in their vertical translation. Local authorities often choose selective densification according to transport supply, which legitimates their agreement towards the construction of towers. The notion of accessibility, used to translate the roughness of space, might then be enriched with a vertical perspective. Roughnesses, and, conversely, connections, have to be analysed by articulating spaces and modes of transport in the three dimensions of the vertical city.

G. Contested verticalisation: landscape, memory, and heritage (including panel session)

Landscape approaches (ie: mediation between the materiality of the city and the individuals who are practicing it) allow to analyse the multiple roles played by urban forms, which may act as identity, memory, as well as economic resources. The increasing number of high-rise developments in European cities sparked countless debates, mobilising stakeholders that have sometimes diverging representations and interests. How is it then possible to look after the conflicts raised by the modification of the urban landscape ? The production of skylines recently revived by their cultural use and planning for vantage points, reveals deep inequalities in terms of access for individuals. This theme deals finaly with regulatory tools, and with stakeholders (public and private, experts, political and “common”) who are producing them, circulating them, welcoming them, i.e. the ways they are used. Confronting the experiences carried out throughout the world on the making of the vertical city allows putting into perspective the cases taken individually and identifying the circulation of models and practices. The aim is also to investigate the governance of the urban volume as well as its translation in operational urban planning.

H. Thinking the 3D city, in a multidisciplinary way and with practitioners

This theme aims at investigating the theoretical framework which is or might be used to understand the vertical city. The city has long been considered as an environment, a geometrical space and an entanglement of territories in a horizontal perspective. We wish to discuss here the impact of the verticalisation of urbanization (the vertical, but also the emergence of new horizontal layers on the social and human sciences models that formalize and try and explain the urban structures and dynamics. We also wish to think the articulation between horizontal and vertical and to reflect on the planning tools of the vertical city, by stressing the limits of urban planning, its adaptation and the paradigms with underpin public policies in the vertical city.

3. Scientific committee and organising committee

Scientific committee

Manuel Appert (Université Lyon 2), Marie Augendre (Université Lyon 2), Vincent Becue (Université de Mons-EIVP) Lise Bourdeau-Lepage (Université Lyon 3), François Brégnac (Agence d’urbanisme de Lyon), Igal Charney (University of Haifa), Youssef Diab (EIVP/UPEM), Frederic Dobruszkes (Université Libre de Bruxelles), Martine Drozdz (Université Paris 4), Isabelle Lefort (Université Lyon 2), Steve Graham (Newcastle University), Andrew Harris (University College London), Maria Kaika (University of Manchester), Xavier Marsault (ENSAL Lyon), Laurent Matthey (Université de Genève), Guido Montanari (Politecnico di Torino), Christian Montès (Université Lyon 2), Steffen Nijhuis (Delft University of Technology), Sylvain Petitet (Egis France), Nathalie Roseau (École des Ponts ParisTech), Gilad Rosen (Hebrew University of Jerusalem), Claire Rossignol (ARCADIS), Claire Saint-Pierre (EIVP), Franklin Van Der Hoeven (Delft University of Technology).

Organising committee

Manuel Appert (Université Lyon 2), Louise Dorignon (Université Lyon 2), Martine Drozdz (Université Paris 4), Raphael Languillon (Université de Perpignan), Christian Montès (Université Lyon 2) Jérémie Philibert (Université Lyon 2).

4. Institutional context

The conference echoes the growing number of studies on the subject, but which, although at international scale, remain largely fragmented by the way research is structured, according to academic disciplines and rising specialisations. The collective endeavours of IMU Labex (Université de Lyon), of UMR 5600, as well as those of the ANR SKYLINE headed by Manuel Appert (2013-2016), aims bringing together different and often segmented researches on the vertical dimension of urbanization and to enable cross-reflection on its scientific stakes.

Labex IMU - http://imu.universite-lyon.fr
UMR 5600 « Environnement, Ville, Société » - http://umr5600.ish-lyon.cnrs.fr
ANR SKYLINE - http://recherche.univ-lyon2.fr/skyline/wordpress/?page_id=98

5. Contacts

For information on the scientific content of the conference
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The submission of summaries will be done through the SciencesConf.org platform
http://villeverticale.sciencesconf.org
Technical details on the submission process of summaries on the SciencesConf.org website will be released soon.

Abstracts (400 words maximum) are expected in .doc or .pdf before April 13th 2015.

6. Frais de participation au colloque

Fees to cover organisation costs, participation to the conference, documents, coffee breaks, lunches and the cocktail diner will be payable to University of Lyon 2.

- For researchers, lecturers, practitioners and others, the cost is set at 150 €
- For PHD candidate and post doctoral fellows : 40 €
- For other students : free

7. References

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