

SYSTEMIC CONTINUITIES AND INTERACTIONS BETWEEN ARCHITECTURE AND SOCIAL SYSTEMS

Knowledge for the future of the knowledge society

CONTINUITÉS SYSTÉMIQUES ET INTERACTIONS ENTRE L'ARCHITECTURE ET LES SYSTÈMES SOCIAUX

Connaissances pour l'avenir de la société de la connaissance

European Systemics Seminars – First cycle of seminars (ESS2015)

Séminaire Européen de Systémique – Premier cycle de séminaires (ESS2015)

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<http://ess.ues-eus.eu>

<http://www.architecture-et-complexite.org>



Italian Systems
Society (AIRS)



Faculté d'architecture,
d'ingénierie architecturale,
d'urbanisme



Groupe de contact F.R.S-FNRS
**Architecture
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POLITECNICO
DI MILANO



Dipartimento Architettura e Studi Urbani

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1. THE SEMINAR / LE SEMINAIRE

1.1. European Systemics Seminars – First cycle of seminars

The European Union for Systemics (EUS) aims at disseminating research results and practitioners experiences, as well as promoting international collaborations in the multidisciplinary field of systemics. In addition to the tri-annual congress of the EUS that is being held across Europe since 1989, the Union launches a new initiative: the European Systemics Seminars (ESS); a cycle of seminars that focus on leading edge topics, investigating the possible and necessary relationships between systems thinking in the broadest sense and the exponentially growing complexity of our modern societies. Industrialized societies were originally based on human and machine workforce, and on a fundamentally empirical approach to scientific discovery. In those days, knowledge was based on control, planning, optimization, reduction... Building on these premises has dramatically facilitated the fast technological advances, allowing post-industrial societies to emerge, reaching unprecedented levels of virtualization, communication and interdependency. But these technological evolutions have not been followed at the same pace by the corresponding necessary social changes. Modern technologies and our exponentially growing interconnectivity reveal an increasing number of "anomalies" in our current worldview, insistently calling for a paradigm shift. The current globalized crisis could consequently be interpreted further strengthening the necessity of leaving the concepts of linearity and planning, leading to embrace those of interaction, interdependence, complexity and convergence. In all disciplines, academic researchers and practitioners alike, are working on building new paradigms that need to be discussed, tested, and confronted. The goal of the European Systemics Seminars is to offer one such convergent point for these important and necessary questionings.

We further believe that transdisciplinarity is the fundamental ethic that allows the circular encounter of theory and practice. The seminars' main goal is to be a starting point for questionings and to promote new collaborations by bringing together researchers and practitioners with diverse backgrounds and fields of interest, mutually feeding a common reflexion that should make practitioners experiences help theories evolve, and allowing the latter to improve the former.

L'Union Européenne de Systémique (UES) vise à diffuser les résultats de la recherche et les expériences des praticiens, ainsi que la promotion des collaborations internationales dans le champ pluridisciplinaire de la systémique. En plus du congrès trisannuel de l'UES qui se tient dans toute l'Europe depuis 1989, l'Union lance une nouvelle initiative : les Séminaires Européens de Systémique (ESS), un cycle de séminaires qui mettent l'accent sur des connaissances pointues, en étudiant les relations possibles et nécessaires entre les systèmes de pensée, au sens large, et la croissance exponentielle de la complexité de nos sociétés modernes. Les sociétés industrialisées ont été fondées initialement sur la force de travail de l'humain et de la machine, et sur une approche de la découverte scientifique fondamentalement empirique. À cette époque, la connaissance était fondée sur le contrôle, la planification, l'optimisation, la réduction... Sur la base de ces prémisses, elle a considérablement facilité de rapides progrès technologiques, en permettant aux sociétés post-industrielles d'émerger, d'atteindre des niveaux de virtualisation, de communication et d'interdépendance sans précédent. Mais ces évolutions technologiques n'ont pas été suivies au même rythme par les changements sociaux nécessaires correspondant. Les technologies modernes et notre interconnectivité en croissance exponentielle révèlent un nombre croissant d' "anomalies"

dans notre vision du monde actuel, appelant avec insistance à un changement de paradigme. La crise mondialisée actuelle pourrait donc être interprétée en ayant à l'esprit la nécessité de quitter les concepts de la linéarité et de la planification, ce qui conduit à embrasser ceux de l'interaction, de l'interdépendance, de la complexité et de la convergence. Dans toutes les disciplines, les chercheurs universitaires et les praticiens, travaillent sur la construction de nouveaux paradigmes qui doivent être discutés, testés et confrontés. Le but de ces séminaires européens de systémique est d'offrir un tel point de convergence de ces questionnements importants et nécessaires.

Nous croyons en outre que la transdisciplinarité est l'éthique fondamentale qui permet la rencontre circulaire de la théorie et de la pratique. L'objectif principal des séminaires est d'être un point de départ pour des questionnements et de promouvoir de nouvelles collaborations en réunissant des chercheurs et des praticiens de diverses origines et champs d'intérêt, alimentant mutuellement une réflexion commune qui devrait faire que les expériences des praticiens aident les théories à évoluer et permettre à ces dernières d'améliorer les premières.

1.2. The seminars of the first cycle / Les séminaires du premier cycle

Seminar 2013. The post-industrial societies dealing with complexity: knowledge to manage the knowledge society

Belgium, Charleroi, 20 September 2013

In the seminar we consider the conceptual differences between Industrial and Post-Industrial Society and the knowledge used. We discuss the inadequateness of the knowledge used to manage Post-Industrial Society which, by its utilisation of theoretical knowledge as a basic resource, is also termed Knowledge Society. We list specific concepts that, rather than updating, need to be reformulated by using the principia of the science of complexity and then translated into cultural meanings. Examples of such concepts are Causality; Coherence; Completeness; Computing; Decision; Dynamics; Equilibrium; Environment; Foresee as anticipation; Linearity and linear correspondence between micro and macro; Localisation; Measure; Objective; Observer ; Openness; Optimisation; Organisation; Precision; Proprieties possessed rather than acquired; Reversibility; irreversibility; Separability; Solve; and Stability.

Seminar 2015. Systemic continuities and interactions between architecture and social systems: Knowledge for the future of the knowledge society

Belgium, Bruxelles, 16 October 2015

The current seminar.

Forthcoming seminar. The project meta-structure

A meta-structure may be tentatively identified with a sequence of structures of interactions establishing the set of the different systems characterizing a Multiple System, together with the relationships between the systems themselves. The project consists on identifying a possible general approach to model processes of emergence of collective phenomena in such a way to allow researchers, for instance, to 1) Recognize a phenomenon as emergent such as collective behaviours acquiring emergent properties; 2) Induce emergence of collective behaviour in populations of agents collectively interacting; 3) Act on collective emergent phenomena with the purpose to change, regulate and maintain acquired properties; 4) Merge different collective emergent phenomena. The core idea of the project is to consider emergence as mesoscopic coherence and collective behaviours as coherent sequences of different systems.

1.3. Theme of the 2015 seminar / Thème du séminaire 2015

Systemic continuities and interactions between architecture and social systems

Human settlements and their architecture have always been spontaneously produced by human societies and cultures. They are mostly built up by a huge number of interacting conscious and unconscious acts over long periods, rather than only by individual, purposely designed acts. This complex development implies a systemic continuity between the built environment and the social systems that dwell in-between its structures, that is to say the appearance of coherent factors shared by one social system and its embodiment.

For a specific period and a specific society, those factors appear simultaneously in architecture, visual arts, music, language or religions. The continuity between the built environment and the social systems enables the emergence of specific human manifestations and behaviors. It fosters social interactions inherent to the needs of every human collectivity.

Some architectural works – specifically designed for dwelling or suiting to other particular use – enable this emergence of collective phenomena in the social realm. On this basis, the implicit project of transforming the properties of a social system can be undertaken by the disciplines in charge of the design of the built environment – the central condition of this project being the acknowledgement of the complex emergence processes that constitute social systems.

Continuités systémiques et interactions entre l'architecture et les systèmes sociaux

De tous temps, les établissements humains et leur architecture ont été le produit spontané des sociétés humaines et des cultures qui leur sont associées. Ils ne sont pas engendrés par des actes individuels et délibérés mais résultent, plutôt, d'un grand nombre d'actes conscients et inconscients s'enchaînant et interagissant dans l'histoire de leur développement. Ce mode d'élaboration complexe implique l'existence d'une continuité entre la structure de cet environnement construit et les systèmes sociaux qu'il abrite, c'est à dire l'apparition de facteurs de cohérence communs aux systèmes sociaux et à leurs manifestations matérielles.

Pour une même période historique et une même société, ces facteurs peuvent apparaître de manière simultanée dans l'architecture, les arts, le langage ou les religions. La continuité existante entre l'environnement construit et les systèmes sociaux permet ainsi l'émergence de comportements humains spécifiques et elle favorise l'instauration de dynamiques et interactions sociales inhérentes aux besoins d'une collectivité humaine.

Certaines réponses architecturales, conçues pour être habitées et investies de manière particulière, permettent l'émergence de phénomènes collectifs au sein de la sphère sociale. Sur cette base, le projet implicite de prolonger ou transformer les propriétés d'un système social s'offre aux disciplines mobilisées autour de l'analyse et de la conception de l'environnement bâti – projet reposant sur la reconnaissance des processus d'émergence constitutifs des systèmes sociaux.

1.4. Topics for the 2015 seminar / Sujets pour le séminaire 2015

The written contribution to the theme 'Systemic continuities and interactions between architecture and social systems' may belong to every disciplines in charge of the analysis and the design of the built environment.

The main topics will be:

- (1) the studies based on the diverse manifestations of the continuity between architecture and the social systems in historical or contemporary cases;

(2) the inventory and critique of several contemporary urban strategies dealing with social targets (Smart Cities, ecodistricts, Urban renewal of industrial wastelands...);

(3) original doctrinal positions which understand the process of emergence as the source of the design project in the disciplines dealing with the built environment.

Les contributions au thème 'Continuités et interactions systémiques entre l'architecture et les systèmes sociaux' peuvent être issues des nombreuses disciplines mobilisées autour de l'analyse et de la conception de l'environnement bâti.

Les sujets principaux porteront sur :

(1) l'étude des multiples manifestations de la continuité existante entre les sociétés humaines et l'environnement bâti dans des exemples historiques ou actuels ;

(2) l'inventaire et la critique de certaines stratégies contemporaines de l'aménagement ou de l'urbanisme intégrant des cibles sociales (Smart Cities, éco-quartiers, rénovation urbaine de friches industrielles...) ;

(3) les positionnements doctrinaux originaux qui comprennent le phénomène d'émergence comme la source d'une démarche de projet dans les disciplines en charge de l'aménagement, de la planification, de l'urbanisme ou de l'architecture.

1.5. Partners of the 2015 seminar / Partenaires du séminaire 2015

Co-organisation / Co-organisation

- European Union for Systemics (EUS) / Union Européenne de Systémique (UES)

-> <http://www.ues-eus.eu>

- ASBL Systèmes & Organisations (S&O)

-> <http://www.s-o.be>

- Italian Systems Society (AIRS)

-> <http://www.airs.it>

- Groupe de contact F.R.S.-FNRS Architecture & Complexité (A&C)

-> <http://www.architecture-et-complexite.org>

Support / Support

- Fond de la Recherche Scientifique (FNRS)

-> <http://www.fnrs.be>

- Faculté d'architecture, d'ingénierie architecturale, d'urbanisme (LOCI),
Université catholique de Louvain (UCL)

-> <http://www.uclouvain.be/loci.html>

- Politecnico di Milano (POLIMI), Department of Architecture and Urban Studies (DAStU)

-> <http://www.dastu.polimi.it>

- École Doctorale Thématique (EDT) Architecture, urbanisme, ingénierie architecturale et urbaine
(UCL, ULB, Ulg, Umons) rattachée à l'École doctorale en art de bâtir et urbanisme près le F.R.S.-FNRS

-> <http://www.archurb.frs-fnrs.be>

2. ORGANIZATION OF THE SEMINAR / ORGANISATION DU SEMINAIRE

2.1. Organizing Committee / Comité d'organisation

General chair / Présidente générale

Andrée PIECQ

Directrice scientifique du Groupe d'Intervention et de Recherche en Organisation des Systèmes

Secrétaire générale de l'Union européenne de systémique (UES)

Présidente d'honneur de l'asbl Systèmes & Organisations (S&O)

a.piecq@skynet.be

Local officials / Responsables locaux

Claude LAMBERT

Informaticien, Systémicien

Vice-président de l'Union européenne de systémique (UES)

Président de l'asbl Systèmes & Organisations (S&O)

cepehello@gmail.com

Damien CLAEYS (UCL – Bruxelles)

Architecte, Docteur en art de bâtir et urbanisme, Chargé de cours

Faculté d'architecture, d'ingénierie architecturale, d'urbanisme

Vice-président de l'asbl Systèmes & Organisations (S&O)

Président du groupe de contact F.R.S.-FNRS Architecture & Complexité (A&C)

damien.claeys@uclouvain.be

Stefan EPPE (ULB)

Ingénieur en informatique, doctorant

École polytechnique de Bruxelles

Service ingénierie de l'informatique et de la décision (CoDE)

stefan.eppe@ulb.ac.be

Sylvain MARBEHANT (ULB)

Ingénieur civil architecte, Docteur en art de bâtir et urbanisme, Maître de conférence

BATir – Service Construction, Architecture et Urbanisme, École Polytechnique de Bruxelles

Secrétaire du groupe de contact F.R.S.-FNRS Architecture & Complexité (A&C)

smarbeha@ulb.ac.be

2.2. Scientific Committee / Comité scientifique

President / Président

Gianfranco MINATI (AIRS – Milan)

Mathématicien, Systems Scientist

Président de l'Union européenne de systémique (UES)

Président de l'Association Italienne pour la Recherche en systémique (AIRS)

gianfranco.minati@airs.it

Members / Membres

Damien CLAEYS (UCL – Bruxelles)

Architecte, Docteur en art de bâtir et urbanisme, Chargé de cours

Faculté d'architecture, d'ingénierie architecturale, d'urbanisme

Vice-président de l'asbl Systèmes & Organisations (S&O)

Président du groupe de contact F.R.S.-FNRS Architecture & Complexité (A&C)

damien.claeys@uclouvain.be

Stefan EPPE (ULB – Bruxelles)

Ingénieur en informatique, doctorant

École polytechnique de Bruxelles

Service ingénierie de l'informatique et de la décision (CoDE)

stefan.eppe@ulb.ac.be

Carlotta FONTANA (EPM – Milan)

Architecte, Professeur

Department of Architecture and Urban Studies (DAStU), École polytechnique de Milan

carlotta.fontana@polimi.it

Sylvain MARBEHANT (ULB – Bruxelles)

Ingénieur civil architecte, Docteur en art de bâtir et urbanisme, Maître de conférence

BATir – Service Construction, Architecture et Urbanisme, École Polytechnique de Bruxelles

smarbeha@ulb.ac.be

Marie ROOSEN (Ulg – Liège)

Master en communication, Docteur en sciences de l'information, Professeur

Faculté d'architecture

marie.roosen@ulg.ac.be

David VANDERBURGH (UCL – Louvain-la-Neuve)

Ingénieur civil architecte, Docteur en histoire de l'art et de l'architecture, Professeur

Faculté d'architecture, d'ingénierie architecturale, d'urbanisme

david.vanderburgh@uclouvain.be

2.3. Venue / Lieu

The Seminar will take place at:

UCL – Faculty of Architecture, Architectural Engineering, Planning

Brussels site, Rue Wafelaerts, 47/51 – B-1060 Bruxelles, room AR-24.

Le séminaire aura lieu à :

UCL – Faculté d'architecture, d'ingénierie architecturale, d'urbanisme

Site de Bruxelles, Rue Wafelaerts, 47/51 – B-1060 Bruxelles, local AR-24.

2.4. Publication of the proceedings / Publication des actes

The proceedings of the working version will be published in *Acta Europæana Systemica*, the Journal of the European Union for Systemics available on-line (<http://aes.ues-eus.eu>) [ISSN 2225-9635].

Les actes seront publiés dans *Acta Europæana Systemica*, le Journal de l'Union européenne pour la Systémique disponible en ligne (<http://aes.ues-eus.eu>) [ISSN 2225-9635].

2.5. Seminar program / Programme du séminaire

8h00 - 8h30	Enrolment et welcome (breakfast) / Incriptions et accueil (petit-déjeuner)
8h30 – 8h45	Welcome to the Seminar: Damien Claeys, Gianfranco Minati, Andrée Piecq, Claude Lambert.
8h45 – 9h30	INVITED LECTURER 1: Carlotta Fontana, <i>Re-tracing the systemic approach in architecture, and developing working tools</i> (POLIMI, Milan)
9h30 – 9h45	Pause
9h45 – 10h15	Jean-Jacques Jungers, <i>Mimesis & C^{ie} – the (un)walled man</i> (UCL, Belgique)
10h15 – 10h45	Valentina Volpi, Mauro Palatucci, Giuseppe Marinelli De Marco, <i>The emergent city. Interactive relational systems between public administration and citizen to foster sustainable processes of urban development</i> (ISIA, Rome)
10h45 – 11h15	Corentin Chanet & David Eubelen, <i>Haunting rhetoric, haunted epistemology: An anthropological critique of systemics in architecture and urban studies</i> (ULB, Belgique)
11h15 – 11h30	Pause
11h30 – 12h00	Jean-Luc Capron, <i>The oku concept and the sequential depth</i> (UCL, Belgique)
12h00 - 12h30	Valerio Di Battista, <i>Paysage: perception et projet</i> (POLIMI, Milan)
12h30 – 13h00	Paul Vermeulen, <i>The time of the metropolis: Understanding urban and systemic dynamics</i> (CITYCONSULT, Belgique)
13h00 – 14h00	Walking dinner
14h00 – 14h30	Gianfranco Minati, <i>The social field designed by architecture</i> (AIRS, Milan)
14h30 – 15h00	Antonio Opromolla, Mauro Palatucci, Alessandro Spalletta, <i>The game as the central element of interactive and social systems for the transformation of the urban environment</i> (ISIA, Rome)
15h00 – 15h30	Roberta Grimaldi, Antonio Opromolla, Valentina Volpi, Mauro Palatucci, Carlo Maria Medaglia, <i>Defining a meta-design framework for knitting the emergent city elements</i> (ISIA, Rome)
15h30 - 15h45	Pause
15h45 – 16h15	Cristina Braschi, <i>From social movements to the coproduction of the city: the renewal of the Right to the City in the contemporary making of public spaces. The case of Madrid and Brussels.</i> (UCL, Belgique)
16h45 – 17h15	Ornella Vanzande & Jean-Alexandre Pouleur, <i>Identification de la diversification des typologies de logement au service de la complexification des besoins et attentes des habitants</i> (UMons, Belgique)
17h15 – 17h45	Abdelkader Boutemadja & Sigrid Reiter, <i>L'approche typologique processuelle comme modèle systémique de lecture des représentations graphiques dans les concours d'architecture</i> (ULG, Belgique)
17h45 – 18h00	Conclusion de la journée et synthèse : Gianfranco Minati, Damien Claeys, Andrée Piecq, Claude Lambert.
18h15 – 20h00	Dinner / Souper
20h00 – 20h45	INVITED LECTURER 2: Ahmed Z. Khan, <i>Integrated design for global ecological balance</i> (ULB, Belgique)

3. CONTRIBUTIONS / CONTRIBUTIONS

3.1. Re-tracing the systemic approach in architecture, and developing working tools

Carlotta FONTANA (Invited lecturer)

Architecte, Professeur

École polytechnique de Milan (EPM)

Department of Architecture and Urban Studies (DASU)

carlotta.fontana@polimi.it

Abstract / Résumé

Architecture is a complex idea in its own right. In architectural culture, systemic references are not new. Design theories, in Europe as well as in USA, have often referred to many concepts more or less strictly linked to Systemics and to scientific domains such as Information theories and Cybernetics.

Quite often, such references have been a mere metaphorical suggestion or, as in the field of "rational" design and process engineering, they mostly have heavy functional overtones. Such is the idea of "performance", whose original definition was meant as an industrial design tool pursuing optimization, linking together the users' needs and the requirements an artifact must possess to satisfy those needs.

But, as we know, "bottom up" emergence processes have nothing to do with "top down" design strategies for optimization.

Nevertheless, the idea of performance conveys the meaning of a strong influence intercurring between two entities, one of them on the "giving" and the other one on the "taking" sides, both of them interacting through feedback. For this reason, I believe the idea of performance should not be discarded lightheartedly. Rather, a "softer" notion of performance, linked to the realm of social perception and attachment to places, should be brought to thorough definition. It might be useful to find a more productive, non-metaphorical use of systemic references to understand and (then) to design – or to redevelop – human settlements.

3.2. MIMESIS & C^{IE} – THE (UN)WALLED MAN

Jean-Jacques JUNGERS

Architect, Assistant and phd searcher

Faculty of Architecture, Architectural Engineering, Planning

University of Louvain (UCL), Brussels

jean-jacques.jungers@uclouvain.be

Abstract / Résumé

From the borromean knotting of the concepts World, Scene and Obscene that represent our material, symbolic and mythological universes, the article explains the process of civilization at work

in our societies. In our view, this process characterized itself by placing Obscene - behind the Scene - a part of our material universe. It is specific of the social animal that is the human being. When he stands on Scene, he always hides a part of his condition. The one he is ashamed of because it places him in front of the ontological void that constitutes him. From this point of view, the process of civilization can be considered as a long aconditionnement of man.

According to us, this radical Obscene placing - mise Obscène - which became a principle during the modern movement constitutes a denial of together; the complexity of the human being, the fragility of its environment and the specificity of his condition. However, it was the way followed by the moderns to sublimate the ontological void, which they were nevertheless constituted. Thus appears a new kind of man, a man without condition, the one that fails today on an alarming ecological situation.

If we hold our interpretation of the lacanian definition of primitive Architecture, Architecture can be considered as the material device invented by man to isolate the Obscene from the Scene and consequently enables man to preserve the paradigmatic integrity of there World. In the following text, we hypothesized that the likelihood of Mimesis is related to the Mimetic power of Architecture. Mimesis and Mimetic would therefore be the two faces of the same coin. Mimesis is ideational. It traditionally regulates the imitative arts and therefore the way nature has to be represented. Mimetic is material. It allows some animals to survive in this nature by using, according to Roger Caillois, three strategies; intimidation, transvestism and camouflage.

To clarify the links between Mimesis and Mimetic, we will define, at first, the concepts of space and material universe. They will help us, in a second time, to outline this talking, symbolic and social animal that is the man. On the way we will approach the issues of Mimesis and Mimetic which will allow us to conclude by pointing three devices used by Architecture to hide the Obscene: the wall (hiding), the type (meaning) and the parergon (sublimation). These three devices enable the human being not only to hide the Obscene, but more than that, to hide the man that architecture itself hides. The issue of the architecture would therefore be based less on the wall as a perceptible element that on its dissolution...

3.3. The emergent city. Interactive relational systems between public administration and citizen to foster sustainable processes of urban development

Valentina VOLPI ^{1,2}

¹PhD Student in Interaction Design

ISIA Roma Design

²Research Assistant

Link Campus University, Rome

valentina.volpi84@gmail.com

Giuseppe MARINELLI DE MARCO

Architect, Professor in Basic Design and Meta-design

ISIA Roma Design

marinelligiu@tiscali.it

Mauro PALATUCCI

Professor in Interaction Design

ISIA Roma Design

mauro.palatucci@gmail.com

Keywords / Mots-clés

interaction patterns, Public Administration, citizen, relational system, smart city, information and communication technologies, meta-design, complexity

Abstract / Résumé

Different urban structures susceptible to change in respect of the effective use made of them emerge from the different combination of architectural and social elements. In effect, the evolution of the city over time sees the creation, the demolition, and the re-creation of different emergent patterns through the actualization of repeated actions, in order to find a balance among the different forces that compose the system. All these forces forge the identity of the city as an emergent property continuously acquired, rather than possessed (Minati, 2008). In detail, the city is constantly redefined by emergent properties that produce an auto-organisation of a territory or a community showed also through temporary transformation of the environment. People are one of the main sources of changeable emergent properties that affected the city. At the same time, the arrangement of the city patterns (Alexander, 1977) shapes the social and connective relations among the city users, included the Public Administration (hereafter PA). So, the city can be regarded as a complex system of information. The widespread of communication devices and sensors connected to the Internet expands this system. This let citizens have a deeper acknowledgment of the city, but may cause, at the same time, negative effects leading to great inequality (Moser, 2001), such as information fragmentation and overload, that people has to manage every time he/she uses a service or "lives" a city. For example, an uncontrolled and unmanageable use of technologies could advance only strong communities or organized groups and act as a sounding board for complaints and demagogic attitudes. To avoid this and try to move towards a sustainable urban development process, new design paradigms have to be identified. In details, the present study focuses on the civic aspect of the so-called smart cities. "Smart city" is a term that refers to a concept assuming many aspects and meanings on the basis the different context or of the different scientific and professional point of view of the observer. A different connotation may be given to this concept by replacing the word "smart" with other adjectives. Anyway it may refers to the general attitude of the city to capture opportunities and to adapt itself to emerging needs and contingencies by effectively and efficiently using the available resources. In such a way, the different kind of smartness to apply varies with the city and with the field of application. Ultimately, smart city should assure an organic connection between its different components, including technologies (Nam, 2011), that, in effect, can stimulate civic engagement in the processes of public interest. So, in the last years, citizens has acquired different roles and responsibilities taking them to the centre of the decision-making processes of the PA, as sources of innovation bringing value into the system.

The complex interdependence among the numerous interactions taking place in a city and the widespread of the sense of a civic environment based on sharing leads PA to the need of building a solid relationship with citizens. In detail, because of its public and administrative role, the actions of the PA should be oriented to find aesthetic and functional solutions improving the relationship between city and society and, consequently, between citizens and PA itself. Moreover, a more collaborative and open PA can respond more appropriately to the needs of a territory or community with effective and efficient services, facilitating the processes of land development. It is responsibility of the PA to lead citizens through a really formative participation and, in turn, becomes really responsive to demands and emerging needs from the society, since not all citizens are engaged in the same way, but they all are subject as city users to the sphere of interest of the PA. The architectural patterns of the city may support or encourage interaction patterns and contribute to form the relation between citizens and PA. So, design can contribute to the process of social change in a sustainable way, by identifying new interaction paradigms from a systemic perspective.

In this regard, the use of ICTs allows very flexible and scattered interactions between citizens and PA introducing open processes of inclusion and exclusion in the system. That is to say that citizens are not forced on a fixed type of interaction, but they can both accept or not the intervention of the PA at different times. In such a way, a dynamic process of participation originates from the relation

between citizen and PA. It takes different forms, but remains consistent with the whole system. For example, the intervention of the PA on a certain territory could bring to a gradual (by stages and extended over time) involvement of the citizen within a process more and more aimed at achieving a common goal, as for co-design processes. Here the process of participation is likely to assume the shape of a spiral direct towards the centre, but in a different moment or towards a different goal the adoption of a more pervasive interaction pattern could be more appropriate. So, information or services without a specific address could be widespread as drops of rain all around, such as in the case of the platform for the creation and use of open data.

These and more interaction patterns that could be applied to the process of participation are the result of the correlation of different variables of the observed system, such as technology, motivation, level of engagement, etc.. They try to represent the urban complexity (Guida, 2013) by showing a possible relational and communicational system likely traceable on the territory, so that they can be put in relation to the urban space as meta-design tools supporting the visualisation of the dynamic relationships between citizens and PA.

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3.4. Haunting rhetoric, haunted epistemology: An anthropological critique of systemics in architecture and urban studies

Corentin Chanet

PhD Student

Anthropology Laboratory of Contemporary Worlds (LAMC), Brussels

cchanet@ulb.ac.be

David Eubelen

Researcher

Architecture and Social Sciences (SASHA), Brussels

deubelen@ulb.ac.be

Keywords / Mots-clés

Systemics – Architecture – Urban – Critical Anthropology – Epistemology

Abstract / Résumé

Although the need for a more complex, interdisciplinary approach to architecture, urban and social systems is well recognized, there are still huge efforts to be made in order to go beyond a mere juxtaposition of different research fields. Systemic studies can rightfully appear at the forefront of this interdisciplinary trend, but we believe that if we want to effectively bolster it, we need to be much more critical of the conceptual framework that will act as the bridge between the different fields.

Our main contention for this paper is that systemic approaches developed in/for architecture and urban studies generate a *haunting rhetoric* based upon a *haunted epistemology*. After having explained what we mean by these, we will conclude with a series of fundamental *discontinuities* that should be at the centre of architectural and urban research. But before we get there, we would like to mention that our goal is not to be provocative (even though we certainly are to some extent) and we would feel rather embarrassed if our proposal was to be seen either as an attack or a condescending rejection of systemic approaches in general. So let us clear the air by saying that in our mind, systemic approaches have played for years an vital role in fostering interdisciplinary research at the crossroads of cognitive sciences, social sciences, architecture and urban studies (among plenty of other fields), and that is why we feel the need to show some tough love by questioning the merits of seeing feedback loops and emergent organization at every street corner – notwithstanding the fact that some "streets" (i.e. places) and some "corners" (i.e. scales) are more taken into consideration than others in urban and architecture studies.

HAUNTED EPISTEMOLOGY

There are several issues to address, among which is the constructivist perspective that allows systems and systemic features to be applied to any abstracted entity, which in turn paradoxically generates a false sense of objectivity and universality: a model of reality is all the more easily taken as reality itself when it is not bounded by any scale nor confined within any particular realm. Inscribing systemics in an "observer-dependent" constructivism does not prevent the subsequent epistemology to be afflicted by biases and essentialism, what we call a *haunted epistemology*. Again, we do not dispute that systemic models have some *instrumental efficacy* across a wide range of scales or contexts; however we would argue that systemic models are *very poor descriptors* outside the realm of mathematics and physics, and that their epistemological status is at the very least questionable. Universality of concepts like "homeostasis", "emergence", "equilibrium", "autonomy", etc. may very well be the corollary of their emptiness. Lexical similarities and formal connotations tend to be mystifying and cannot therefore provide a pathway to interdisciplinary research. So if certain emergent properties of a human crowd can effectively be abstracted by a systemic model that originated from physics, here's the problem: social interactions cannot be described as sophisticated collisions because people *are not particles*. The fact that a formal conflation is *effective* does not prove its validity as a scientific concept. But what if proponents of systemics argue that the only goal set for their approach is precisely to be effective, to offer a hold on the world, and nothing more? Well, that leads us to our second set of critical remarks.

HAUNTING RHETORIC

As we've just said, there's no denying that systemic models can be very powerful in terms of projection, decision-making and justification. However, we don't think that systemic models are convincing solely because they are efficient. There is also the rhetoric, i.e. the convincing nature of the systemic discourse, propped up by a formal aesthetics that displays a sense of universality, openness and complexity, all values that can appeal to contemporary designers and policy-makers alike. That is precisely the reason why systemics is a haunting rhetoric: it promises a universal way to govern any kind of phenomena by formalizing some properties, from superconductivity to urban design. And while its appearance remains non-political, thanks to the common representation of its origin (hard sciences like thermodynamics) and its formalization (mathematics), this rhetoric keeps being used as an ideology (Boltanski & Bourdieu, 1976) to support policies, to define quality, to rebrand discourses of good governance, to foster dominant interests, etc.

EXORCISED ARCHITECTURE: FROM COMPLEXITY TO MESSINESS

So where do these considerations lead us in terms of urban and architectural practices and research? First it allows us to reconsider critically the idea of a systemic continuity between architectural/urban design, the built environment and social entities like norms, behaviours, institutions, etc. What strikes us the most as social scientists are the *discontinuities* between these contiguous entities: policies and urban planning are imposed even when some participatory initiatives are put in place; urban spaces are at the same time homogenized and fragmented to maximize the circulation of capital and strategies of accumulation (Harvey, 2013; Lefebvre, 1974); 'extended' cognitive and systemic models of innovation in architecture and urban design often fail to seriously take into account the embodiment of habits (Turner 1994; Turner 2014; Bourdieu 1972) which are not only mental representations (Dreyfus 2002), therefore reinforcing an external/internal cleavage that is damaging for the understanding of living organisms. To posit a formal systemic continuity between material configurations and social processes (or vice-versa) is of little help to tackle these challenges. We want to advocate a shift from an aesthetical complexity appealing for policy-makers to the contingent and diverse empirical messiness that is neither systemic nor non-systemic. What we lose in efficient formalizations and decision-making, we regain in thick descriptions and deeper understanding achieved through empathy and participant observation that put matters of life, death and politics at the centre of architecture and urban design. We can dwell on models and mediums of representation for hours within the comfort of our labs, but that will not help us to understand or decide *what is or has to be represented, who has the power to do so and why*. As Godlewski (2010) wrote in his critique of the work done by Koolhaas for the Harvard Project on the City (see also Crysler 2012), we shouldn't think about complexity and rapidly changing environments from the height of a helicopter circling over a city if we want to avoid the pitfalls of cybernetic orientalism.

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3.5. The *oku* concept and the sequential depth

Jean-Luc Capron

Dr. Eng. Architect, Lecturer
Faculty of Architecture, Architectural Engineering, Planning
University of Louvain (UCL), Brussels
jean-luc.capron@uclouvain.be

Abstract / Résumé

In the field of architecture, the Japanese spatial concept *oku*, may be approximated by the Westerners as a "depth strategy". This meets the *ma* concept which may be approximated as a "negative space." If these two concepts refer to time, their relationship to the dynamics of perception is characterized by a static subject for the concept of *ma*, and by a motion subject for the concept of *oku*.

Architecture acquires its reality when perceived and used by human beings. Therefore, issues of a preliminary research on the perceptions and uses of space are the knowledge of the modalities of the perceptions and uses that shape mental spatial constructions, which in turn make our relation to the built environment. Acquiring such a knowledge assumes that we agree to focus – at least at a first step – on the analysis of spatio-temporal instantaneous rooted in the *hic et nunc* dimension, implicit to any action.

This approach requires to develop specific tools to address the issue of the relationship that links human beings to the built environment. Here, the concept of system is a conceptual tool, which aims to highlight the interactions between the elements of a complex whole. In such a context, a systemic approach is a tool that offers many opportunities.

Since the relationships between the components of a system are not unidirectional but bidirectional, a representation based on communication theory may be used to represent information in a form-oriented vector. This vector is characterized by its points of origin and destination, as well as the amount of information transmitted or received. As some information lead to actions and re-actions, time sequencing factors would be added to the main features of the analysed relationships. Thus, these actions can also be considered as vectors characterized in a manner similar to information, but without being their reciprocal.

As the degree of organization in a system depends on the qualitative and quantitative information available. And as the human being perceives the built environment by means of sensory receptors and sociocultural filters,... one can state that the built environment system is thus perceived by an external system. Therefore, the amount of perceived organization depends on the occurrences between the "observer" and the "observed". The information exchange process from one system to another can be considered as the transfer of an organization. And the nature of the information may be considered as a pattern.

The interface between humans and the built environment is carried out by systems of interactions between the activity of the human being and the constraints of the built environment. The systems discussed here are open and non-homogeneous. Open in that they are permeable to the environment external to the system and not homogeneous in that the elements which are interrelated are of different natures.

To do this, the concept of micro-system has been developed to make possible the integration of interfaces, with a significant physio-psychological impact on user behaviour. The definition of a microsystem requires isolating components, endogenous and exogenous, as well as the subsystems and their relationships. In architecture, the identification of a micro-system can be made on the basis of factors such as the built environment stimuli, or perceptual and cognitive modalities via which the human being builds a mental picture that helps to interact with the surroundings and induces behaviour.

Such methodological tools help to characterize the "sequential depth" associated with the concept of *oku* which lead the journey to the "inner space". A spatial concatenation in which one enters, actually or virtually, according to a ritual journey through the spatial structure that binds the various places in the respect of the specificity of use. Performing the two spatio-temporal mechanisms – not

only by extending space, but also by generating a sense of depth –, suggesting a relationship with an inaccessible space that refers to "the impression of distance".

3.6. Paysage: Perception et projet

Valerio Di Battista

Ancien Professeur, Politecnico di Milano

Coordinateur du Réseau d'Observateurs de Paysage Piémont

E-mail: dibattista_valerio@libero.it

Keywords / Mots-clés

paysage, nouveau paradigme, nouveau projet.

Abstract / Résumé

La présente homologation des interventions d'architecture, d'importants complexes mais aussi des bidonvilles fondamentalement sur un pied d'égalité dans tous les coins du monde (en Chine comme à Dubaï, comme à Rio, etc.), propose la crise dans la relation avec les lieux de nos œuvres.

Nous avons hérité de la "modernité" la répétabilité du produit et aussi des processus de projet e de construction. Cela, dans nos paysages et dans les villes, rejette la relation avec le lieu et réduit les relations identitaires qui sont indispensables pour les hommes (comme pour tous les animaux).

Pour surmonter cette crise, n'est plus assez de réflexions stylistiques d'architecture, facilement subjugués par l'uniformité des tendances et des processus. Ne sont plus suffisants aussi les "sculptures" des "archistars"

Une possibilité pour surmonter cette condition c'est de poursuivre les réflexions de paysage et celles de l'intervention sur le bâti pour changer radicalement le point de vue.

Le paysage c'est toujours un système complexe, ouvert et continu qui comprend les éléments abiotiques, biotiques et anthropiques interdépendants et les flux de la matière, d'énergie, d'informations, d'argent, etc. Propriétés qui doivent être abordé de façon holistique. Donc: "les méthodologies linéaires et réductionnistes ne suffisent pas. Cela requiert une étude systémique prévoyant la non linéarité, la complexité et par conséquent les propriétés émergentes".¹

Cette conception du paysage comme système complexe va comprendre les signes et significations qui inévitablement dénotent tous les éléments naturels et anthropiques. Un système ou les interactions matérielles de son rangement physique et biotique ne sont pas séparables d'interactions culturelles.

Le paradigme du paysage définit l'architecture comme l'un des nombreux signes dans le paysage.

C'est le paysage, ce qui existe déjà, qui devrait suggérer la meilleure action possible pour ce qui sera.

Le paysage a besoin d'observations continues e d'actions aussi. Il requiert une conception diachronique qui imagine l'actualité comme une suite de processus anciens et comme une condition de ceux qui viendront.

¹ CEP – CDCPP (2015) 14-A F, p. 17.

Cela signifie également que le système va changer grâce à une variété d'intentions qui découlent de raisons différentes et qui se développent avec des moyens et avec des intensités variés. Par conséquent, il se configure comme un résultat complexe, indéterminé, ouvert et continu de variations qui accompagne (avec des inerties et des conflits) les mêmes processus de changement qui se produisent dans les activités, les exigences et les comportements et les structures de la population.

Dans cette conception, nous sommes tous concepteurs et tous les utilisateurs. Dans les deux cas, avec l'ensemble des bagages de nos motifs et de nos différentes expériences, mais aussi avec les structures organisationnelles de notre émotion en commun, notre pensée, enfin notre culture.

Ce que la culture de l'architecture peut toutefois offrir au paysage ce sont les indications de la méthode acquises dans diverses échelles de l'intervention dans le bâti.

C'est à dire relever, diagnostiquer, évaluer et enfin de projets de conservation et transformation qui mélangent entretien, amélioration, nouveaux usage.

La différence c'est que pour chaque paysage il faut choisir le domaine, étudier les éléments, les flux d'interaction et la perception de l'information reçues de la population.

Un programme de paysage doit également tenir compte de la multiplicité des acteurs anthropiques et des facteurs naturels, des différents flux, des variations dans les processus, des diverses temps de durée des éléments, des divers moments dans lesquels on prend les décisions et il est possible d'obtenir les effets des différentes actions.

Dans ce programme, les projets d'architecture (conservation et transformation du bâti) doit être continue et ouvert pour agir de concert avec les principales variations d'autres processus.

3.7. The time of the metropolis: Understanding urban and systemic dynamics

Paul VERMEYLEN

Urban planner, expert in EU territorial development

Architect (ISA), urbanist (ISURU), Public management (Solvay-ULB)

CityConsult Brussels

Paul.vermeylen@cityconsult.net

Keywords / Mots-clés

metropolization in EU Cities, method and values, agile, creative, solidar, sustainable, skills for systemic development.

Abstract / Résumé

How come that some EU cities are often presented as examples and monopolize the best positions in various rankings? They act not according to models, but according to a method which is mostly similar to Edgar Morin's concept of auto-eco-organization. Theirs actions are based on values: they are agile creative, supportive, sustainable. So how do they implement those guidelines ?

3.8. The social field designed by architecture

Gianfranco MINATI

Mathématicien, Systems Scientist

Président de l'Union européenne de systématique (UES)

Président de l'Association Italienne pour la Recherche en systématique (AIRS)

gianfranco.minati@airs.it

Keywords / Mots-clés

autonomous agent, Coherence, Environment, Field, Properties, Social field

Abstract / Résumé

In the literature disciplinary researches, e.g., physics, studied the behaviour of elements, such as particles, in a context provided with properties, e.g., electromagnetic and gravitational. This context is classically considered as field, i.e., a physical quantity associated to each point of space-time. Social sciences and psychology use the concept of Force Field introduced by the social psychologist Kurt Lewin (1890-1947) The Force Field or life space was assumed to be -in any individual or social group- changing with experience and intended as representation of the environment, personal values, emotions and goals. We may say the cognitive system combined with representations and stimuli of the environment. This short essay focuses on Architecture as design of structures able to represent and induce properties of the cognitive systems possessed by inhabitants as well their transformation processes relating to social processes in progress. The subject is studied by Environmental Psychology, in the conceptual framework of Space Syntax. On one hand, the structure of space created through Architecture both represents and induces the social field within which inhabitants behave. On the other hand, inhabitants behave by using such a social field. Within this conceptual framework we may hypothesise the existence of a process of self-architecture by social systems. We explore the coherence, in such social fields, between different aspects such as architecture, design, fashion, music and painting.

3.9. The game as the central element of interactive and social systems for the transformation of the urban environment

Antonio OPROMOLLA ^{1,2}

¹PhD Student in Interaction Design

ISIA Roma Design

²Research Assistant

Link Campus University, Rome

anto.opro@gmail.com

Alessandro SPALLETTA

Professor in Product Design

ISIA Roma Design

alessandro.spalletta@isiaroma.it

Mauro PALATUCCI

Professor in Interaction Design

ISIA Roma Design

mauro.palatucci@gmail.com

Keywords / Mots-clés

self-design, game theory, gestures, systemic continuity, architecture, processes of emergence, social systems

Abstract / Résumé

The "game" can be considered as a meta-design element useful in the collaborative processes for the emergence of new properties in the urban environment and for its transformation. The non-verbal languages can be used by citizens/players as performative "utterances" that, consistently with the specific roles, allow both to communicate with the others and to create, to build, and to renovate. In this context, a systemic continuity among game, social systems, and architectural elements can be identified.

3.10. Defining a meta-design framework for knitting the emergent city elements**Roberta GRIMALDI** ^{1,2}

¹PhD Student in Interaction Design
ISIA Roma Design
²Research Assistant
Link Campus University, Rome
robertagrim@gmail.com

Mauro PALATUCCI

Professor in Interaction Design
ISIA Roma Design
mauro.palatucci@gmail.com

Antonio OPROMOLLA ^{1,2}

¹PhD Student in Interaction Design
ISIA Roma Design
²Research Assistant
Link Campus University, Rome
anto.opro@gmail.com

Carlo Maria MEDAGLIA

Head of Research Department
Link Campus University, Rome
c.medaglia@unilink.it

Valentina VOLPI ^{1,2}

¹PhD Student in Interaction Design
ISIA Roma Design
²Research Assistant
Link Campus University, Rome
valentina.volpi84@gmail.com

Keywords / Mots-clés

processes of emergence, re-semantization of places, city boundaries, social behaviours, Calvino, meta-design, city images

Abstract / Résumé**SOME EXAMPLES OF EMERGENT PROPERTIES IN THE URBAN ENVIRONMENT**

The environmental transformations of the city are the expression of processes of emergence in social systems that continuously redefine the city as a system (Minati, 2001).

In detail, in a previous study, we identified and illustrated three examples to show how the city evolves on the basis of the emergent properties: the re-semantization of specific city elements; the

boundary conditions as source of system change; the social behaviours and interactions as soft protests.

The first consists in the attribution of a new meaning to urban ecosystem elements (Martinelli, 2004) as the result of the wear process of the relations between subjects and objects that make up the city. An example is the use of elements of the urban furniture for a function other than which they were designed for.

The second is about the "boundary" as both a barrier to the change of the system (so a disabling element for it), and a bridge to it (so an enabling element for its development). This allows to overcome the vision of the "center" as the core of the system in contrast to the suburb areas as a fringe of the system, referring not only to the spatial conditions, but to the topics of political and media agendas, too. An example of these observations are the French riots occurred in 2005 in the banlieu.

The third focuses on some social behaviors and relationships among the city users that indicate a dysfunction of the city. These attitudes may take the form of a soft protest aimed to show an alternative solution for better living the city, as expression of a community action. An example is the practice of ticket crossing.

These occurrences are "traces" only apparently separated. Indeed, since these single elements are part of a more complex system, they can be reciprocally linked into "knitted" patterns.

THE EMERGENT PROPERTIES AS "IMAGES" OF THE CITY BORROWED FROM CALVINO'S WORK

As a progression of our study, in this paper we intend to systematize the process of interpretation of the city illustrated above, making a further step forward in the "knitting of the traces". In detail, starting from the acknowledgment of the complexity of the city as a system, we try to categorize the processes of emergence previously identified on the basis of the attributes sprang from the study of the process itself. We sustain this step through the correlation of the emergent properties of each identified process with the representations of the different cities coming from the work "Le città invisibili" by Italo Calvino (Calvino, 1996).

In this novel, Calvino defines some general attributes of the cities (e.g.: tradings, eyes, thin, etc.) and for each of them he identifies some specific declensions, inventing about sixty imaginary cities.

The three examples of processes of emergence discussed above can be the expression of three different cities of Calvino's novel. In details: the process of re-semanticization of city elements can be intended as an element belonging to a "city of memory" called Zaira, that "[...] does not tell its past, but contains it like the lines of a hand, written in the corners of the streets, the gratings of the windows [...]"; the boundary conditions can be intended as a process belonging to a "hidden city" called Olinda, that conceals in its center the new architectural elements and that develops in concentric circles from the inside to the outside; the social behaviours and interactions as soft protests can be intended as processes of a "trading city" called Ersilia, in which "[...] to establish the relationships that sustain the city's life, the inhabitants stretch strings from the corners of the houses [...]".

Then, we went further in the abstraction and simplification of the identified attributes by choosing a single image exemplifying a single attribute. In these three cities, a specific image is provided: Zaira is a hand, Olinda is a set of concentric circles, and Ersilia is a set of twisted wires. The extraction of a specific image from the more complex context emerged represents a specific tool to be considered in design processes in order to find solutions that meet the emergent properties illustrated above.

IDENTIFYING INTERACTION PATTERNS BETWEEN EMERGENT PROPERTIES AS A FRAMEWORK FOR META-DESIGN

In a real context, a single city is not defined by one single attribute (or one of its declensions), but by a large set of them. So, we need to analyse the complexity of a city considering the interaction among this large set of attributes and then of more processes of emergence at the same time. Indeed, by putting in relation one or more specific images of the city attributes (or declensions) and then exploring their possible interaction patterns, we provide a way to recompose the complexity of the city by knitting the traces.

If the identified processes of emergence were part of a single city regarded as a system, the hand, the concentric circles, and the twisted wires have to interact. In effect, according to Minati (Minati, 2011), the interaction among elements is a necessary condition to qualify them as a system. Considering that, it is necessary to find one (or more) representation that describe the possible patterns of interaction between two or more images, in order to help designers to find new services or products that meet all the emergent properties of a city at the same time. According to our example: how a hand can interact with concentric circles? The representation could describe the action of throwing a stone into a pond that let the hand creates concentric circles into the water. This example describes an interaction between two agents (the hand and the concentric circles of the pond) mediated by an external element (the stone), maybe belonging to the surrounding context, dependent from the first agent (the hand). So the two images interact on the basis of a cause-consequence relationship, where the stone represents a more or less meaningful trigger.

Extended to other interactions patterns and images, this exercise at knitting the traces can offer a flexible meta-design framework for manage the complexity of the city regarded as a system.

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3.11. From social movements to the coproduction of the city: The renewal of the Right to the City in the contemporary making of public spaces. The case of Madrid and Brussels

Cristina BRASCHI ^{1,2}

Architecte - urbaniste

¹ *Assistante en Architecture d'Intérieur et Design Urbain, Académie Royale des Beaux Arts de Belgique*

² *Doctorante en Art de Bâtir et Urbanisme, Faculty of Architecture, Architectural Engineering, Planning University of Louvain (UCL), Louvain-la-Neuve*

crisbraschi@hotmail.com

Keywords / Mots-clés

participatory planning, empowerment, right to the City, coproduction, public spaces

Abstract / Résumé

The article is based on the observation of Madrid and Brussels, where we can find recent similar claims for including each of their citizens in the city-making processes. Although Madrid has no experience in participatory planning, and Brussels is considered as one of Europe's pioneers in this matter, with more than twenty years of experience, both cities encounter analogous citizen demands and self-organized actions for creating spaces that follow an ideal model that is more in line with some citizens' requests.

These demands range from asking for more possibilities in which citizens express their opinion and ideas about their environment (a new governance), to the requests for disposing of underused spaces for creating socializing places to gather (a new production of the city). Though, these urban social movements as Castells defines (Castells 1973) are not limited to mere demands, but also and nowadays systematically, they tend to pass to action and to hand the leading to empowered citizens.

Thanks to crowdfunding, some projects don't even wait until obtaining a public funding: once the building permit is given (for a permanent or temporary project), the budget for the realization comes from anybody who wills to be a sponsor. The online crowdfunding method can be applied also to crowd-thinking, crowd-creating and crowd-debating about the relevance of the project. Indeed, thanks to online networks and to mobile applications, citizens can not only express their discontent with the poor condition of a street or street furniture, but they can also make proposals and connect to other people to bring a collective solution to the matter.

This vast range of means of production of the city in which its citizens struggle to achieve their ideal of a more inclusive city-making process, supposes that the degree of citizen empowerment is also broad. Notwithstanding the fact that the means used by Madrid and Brussels' citizens to be included in the city-making are so diverse, many of these means claim to embrace a common Henri Lefebvre's Right to the City.

The article retraces the citizen-led and citizen-organized production of public spaces in Madrid and Brussels, intended as places to gather but also as places of discussion about the city-making, during the periods before and after the global crisis of 2008. The idea is to find the ways in which not only the governance is reconsidered to include citizens, but also the urban practices are questioned about their inclination to confine citizen participation only to the preliminary inquiries to a concrete project. Through the exploration of several cases of city-making which include citizens of Madrid and Brussels in the processes, the article questions which kind of Right to the city do they constitute: which are the city models defended by these practices (whose rights to what city? Brenner et al. 2012)? Are they a revision of Lefebvre's theories in a (global crisis) context? Or are they a reinterpretation of Lefebvre's Urban Revolution (Harvey 2013) responding to the contemporary withdrawal of the national state of many areas of the social life?

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3.12. La diversification des typologies de logement au service de la complexification des besoins et attentes des habitants : observations en coeur de hainaut

Ornella VANZANDE

Assistante-doctorante
Faculté d'Architecture et d'Urbanisme, UMONS
ornella.vanzande@umons.ac.be

Jean-Alexandre POULEUR

Architecte, Licencié en sciences appliquées,
Docteur en architecture, Professeur,
Faculté d'Architecture et d'Urbanisme, UMONS
jean-alexandre.pouleur@umons.ac.be

Keywords / Mots-clés

évolution de l'habitat, typologie architecturale, mode d'habiter, habitat adapté, participation citoyenne

Abstract / Résumé

De grands changements bouleversent constamment le monde et la société. Les populations évoluent tant dans leurs modes de vie que dans leurs idéaux. Comme Yvonne Bernard les appelle, ces "transformations sociétales"² influencent les modes de vies au sein de l'habitat : la généralisation du travail féminin, les modifications du groupe domestique (apparition en grand nombre de famille monoparentale, recomposée, personne vivant seule...), la diminution du temps de travail (impliquant que l'on passe plus de temps dans notre logement), en passant par la flexibilité d'usage (influencé par exemple par le travail à domicile qui implique l'organisation d'une zone de travail au sein du foyer) engendrent des changements dans la manière d'habiter. Une différence s'observe également entre les générations : alors que pour les anciennes générations, l'habitation se constitue d'espaces publics et privés qui se démarquent nettement (pièce réservée à la vie quotidienne- pièces réservées à la famille – pièce réservée à l'intimité du couple), pour les jeunes, les espaces ont tendance à s'entremêler, les espaces s'ouvrent.³ Sans parler de l'importante évolution démographique à laquelle nous sommes confrontés. Fleurissent alors de nouvelles alternatives aux logements traditionnels. Pour les séniors des résidences services, centre d'accueil de jour, maison de repos et de soins, centre de court séjour, centre de soins de jour, centre d'accueil de nuit, petites unités de vie, séniories... voient le jour. Pour d'autres, des formes d'hébergement alternatif telles que l'habitat groupé ou encore la maison kangourou se multiplient aujourd'hui. La manière d'habiter traditionnelle est donc bouleversée et tend doucement à être remplacée par la création de nouvelles manières de vivre son logement. Une multitude de typologies cohabite – anciennes et nouvelles - pour satisfaire les différents besoins de la société.

Or le constat est criant, l'évolution globale du parc de logement depuis ces 50 dernières années est loin d'être satisfaisante. Dans les années 70, Turner (1976) revendique le droit au logement pour tous et s'interroge quant au mode de production de l'habitat. Actuellement, ces constats n'ont pas mené à un redressement de la situation même si des solutions exemplaires comme l'IBA Berlin ont vu le jour. Certains indicateurs comme la multiplication des "sans domiciles fixes" et le mal-être des grands ensembles semblent plutôt montrer une aggravation du problème. La production massive du logement est restée encore centrée essentiellement sur des solutions zonées de villas 4 façades

² BAILLON Quentin, (page consulté le 15 janvier 2014). *L'habitat face aux évolutions des modes de vie en Europe: quels enseignements* [En ligne]. [http://www.urbalyon.org/AffichePDF/Reperes_europeens - seance du 22 mars 2012 - l- habitat face aux evolutions des modes de vie en Europe - quels enseignements -- seance du 22 mars 2012--3421](http://www.urbalyon.org/AffichePDF/Reperes_europeens_-_seance_du_22_mars_2012_-_l_habitat_face_aux_evolutions_des_modes_de_vie_en_europe_-_quels_enseignements_-_seance_du_22_mars_2012--3421)

³ Pascal Dreyer, *LIMITER LES CONSÉQUENCES DE LA VIEILLESSE ET DE LA DÉPENDANCE Agir sur l'habitat et l'environnement*. Fond. Nationale de Gérontologie | Gérontologie et société, 2008/2 - n° 125 [En ligne] <http://www.cairn.info/revue-gerontologie-et-societe-2008-2-p-167.htm>

stéréotypées, de logement social mitoyen et d'appartements urbains qui sont inadaptées aux transformations sociétales identifiées. Cette production n'est qu'une reproduction de types architecturaux très peu diversifiés semblant s'inspirer d'une compréhension tronquée des théories de Durand (1801) qui visait depuis l'école polytechnique à fonder les modes de production industrielle du bâtiment.

À partir d'un essai de redéfinition de l'habitat, les différentes typologies sont identifiées selon une relecture originale et contemporaine de Durand enrichie par celle de Lucan (2012). La nouvelle méthodologie proposée permet de comprendre de manière globale la richesse des formes actuelles de logement y compris celles qui sont atypiques. Cet élargissement du champ d'observation vise à détecter de nouvelles formes d'habitat qui répondraient mieux aux besoins et attentes de notre époque que la production massive et stéréotypée engendrée à la suite des Congrès Internationaux d'Architecture Moderne.

Ensuite, ces différentes formes de logement sont comparées et confrontées au processus de conception utilisé. Parallèlement, les interconnexions et hybridations entre typologies sont explorées pour voir dans quelle mesure leurs juxtapositions adéquates ou leur modification n'engendrent pas elles aussi de nouvelles formes d'habitat répondant mieux aux besoins actuels. On observe ainsi une complexification croissante, voire infinie, des possibilités de logement répondant probablement mieux à l'intense diversification des attentes. Cette approche montrerait ainsi l'inadaptation des approches stéréotypées favorisées par l'industrialisation du logement.

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3.13. L'approche typologique processuelle comme modèle systémique de lecture des représentations graphiques dans les concours d'architecture

Abdelkader BOUTEMADJA

*Laboratoire de culture Numérique en Architecture (LNA),
Faculté d'Architecture, Université de Liège (Ulg)
aboutemadja@ulg.ac.be*

Sigrid REITER

*Local Environment Management and Analysis (LEMA),
Faculté d'Architecture, Université de Liège (Ulg)
sigrid.reiter@ulg.ac.be*

Keywords / Mots-clés

systémique, sémiotique, typologie processuelle, crise

Abstract / Résumé

Dans le cadre de cet article nous allons expliquer la démarche entreprise pour essayer de mieux comprendre les productions actuelles d'image d'architecture. Pour ce faire, nous avons effectué des recherches sur deux niveaux complémentaire ; la systémique et la sémiotique. Si la deuxième nous permet d'utiliser des outils concrets d'analyse de l'image la première nous offre les bases théoriques pour expliquer l'objet d'étude qu'est l'image. Nous nous attarderons dans cet article sur les emprunts

fait à la typologie processuelle comme approche systémique étudians le territoire et le bâti et plus particulièrement sur la notion de moment de crise point de départ de la compréhension d'un phénomène aussi complexe que la représentation graphique du projet.

3.14. Integrated design for global ecological balance

Ahmed Z. KHAN (Invited lecturer)

Professeur

Free University of Brussels (ULB), Brussels

ahmed.khan@ulb.ac.be