2015

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Ion Mincu University of
Architecture & Urbanism
Bucharest, Romania

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Abstracts

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Introduction

Under the title theme Re[Search] through Architecture, ICAR 2015 pro-
poses a debate of the subject defining some new principles of nowadays
architectural design. In the XXI-st century, in searching of a "style", after
Postmodernism, it is considered that new architecture based on algo-
rithms and parameters may offer new senses of space continuity and legibility.
In opposite, the contextualist and phenomenologist movements consider this ap-
proach as a formal and fragile tendency, culturally un-sustained and which won't
prove its consistence in time as utopist and futurist did.

Topics like new avant-garde movement, stylistic searching, anachronistically archi-
tecture, space continuities and correspondences, lived architecture or experimen-
tal manifesto projects, the evolving of geometries, urban continuities or classical
defragmentation, functional zoning, social impact scenarios, space formalization,
aesthetic and symbolic design values, authentically or new built archaeology, sus-
tainable design etc. will be presented and debated under three main sections:

Traditional versus Computational, Innovation and Experiment, Archive – Utopia –
Events. Built / Unbuilt.

Assoc.Prof. Beatrice-Gabriela JÖGER, Arch, PhD, UAUIM, Bucharest, Romania

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Zuhal ULUSOY, Arch., PhD, Professor, Dean of Faculty of Art and Design, Kadir Has University, Istanbul, Turkey

Maria VOYATZAKI, Arch, PhD, Assoc.Prof., School of Architecture of Aristotle University of Thessaloniki, Greece

Traditional versus Computational

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If the naturalism and graphic virtuosity of architectural portrayals are too great, if they lack "open patches" where our imagination and curiosity about the reality of the drawing can penetrate the image, the portrayal itself becomes the object of our desire (…). The portrayal no longer holds a promise. It refers only to itself.

Peter Zumthor, A Way of Looking at Things

Representation is vital for architectural education, being the basis for the transmission of knowledge, ideas, feelings etc. Architectural education can decide between remaining in the domain of absolute simulation and proposing a strong interaction with the real world, in search of the essence of things. Academic teaching and work with artisans, in the very place of the building site, within a concrete experience have historically been the two opposite ways of learning architecture. For pedagogy the topic appears in a different light when we locate the "real" beyond the material world that surrounds us.

Image divorces from any rules and proclaims its own reality (XX-th century). We are now facing a revolution of the enchained spirit searching liberation from the straight canons of technology and efficiency after having lost the contact with the transcendental understanding of the world. But technology has already become too powerful and art itself started to depend on it. The present paradigm of parametric architecture and of computer assisted design in general is an effect of this growing role of technology in architectural representation. Should we assume this role unconditionally or should we preserve classical patterns of representation? That is the question.

Assoc.Prof. Codina Dușoiu, Arch PhD, Chair of Section 1

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Alexandru-Ionuţ PETRIŞOR

PhD (ecology), PhD (geography), habil. (urban planning), "Ion Mincu"
University of Architecture and Urbanism, Romania

alexandru_petrisor@yahoo.com

Alexandru-Ionut Petrisor earned from the University of Bucharest his BS in Ecology (1997) and PhD in Geography (2011), from the University of South Carolina his MSPH in Biostatistics (2000) and PhD in Ecology (2004), from the Romanian Ministry of Education his Habilitation in Urban Planning (2014) and from Bucharest Academy of Economic Studies a Certificate Degree in Project Management (2012). He is Scientific Director of the National Research Institute in Constructions, Urban and Sustainable Spatial Development URBAN-INCERC, Lecturer at Ion Mincu University of Architecture and Urban Planning, both in Bucharest, Chief Editor of IAFOR Journal of Sustainability, Energy and the Environment, Member of Sigma Xi and the Society for Urban Ecology, author of over 160 articles and 80 abstracts, 30 books and chapters, 140 presentations, 90 lectures, 20 research reports, and 25 plans. His research interests include systemic, urban and microbial ecology, environmental, bio- and geo-statistics, and Geographical Information Systems.

Reflections On The Appropriateness Of Geostatistical Generalizations In Territorial Research

Alexandru-Ionuţ PETRIŞOR

Abstract

Modern geography is an expanding discipline, including the emergence of over 30 branches, most resulted from the interference with other sciences, including the import and export of concepts and methods. The process resulted into the generalization of geography as science of the organized space. Nevertheless, although the process was generally beneficial (especially for professionals from other disciplines, who have benefit upon the productivity of geographical approaches), it induced to the geographers a fear of loosing their object of study. This paper consists of a series of reflections on the geostatistical

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approaches used in territorial research. Geostatistical methods have been previously defined as those methods ranging from pure geographical approaches, consisting of describing the particular features of each unique place, to statistical and mathematical models, that tend to generalize and define a new geography, sometimes lacking the initial territorial relevance.

In fact, a range of five types of geostatistical approaches have been defined based on the degree of interference between geography and statistics or abstractness, but also accounting for the overall research goal: (1) pure geographical approaches, with maximal territorial relevance, and no mathematical abstractness; (2) geographical approaches with some quantitative relevance, which maintain the territorial relevance, but also include some statistical processing, as simple as interval grouping; (3) equal mixture of geographical and statistical approaches, such as the results of grouping the results of mathematical computations applied to a set of geographical units, eventually dissolving the mathematical borders; (4) mathematical approaches applied to a set of variables including geographical ones, and expanding to their territorial representations; the results lack the geographical relevance; and (5) mathematical models that define abstract spaces and loose the geographical relevance. Some of the previous examples of outputs obtained from the application of geostatistical techniques to territorial research include generalizations obtained using a wide range of approaches, from simple interpolations of spatial data to interpolations of mathematical constructs, consisting of the results of tests applied to the original data. Occasionally, such generalizations have created a new, virtual space, replacing the traditional and visible one. Nevertheless, after using for a long time these approaches extensively with good results (in terms of deriving new knowledge), the attempt to connect their outputs with the planning practice has clearly indicated a very pragmatic need for being able to relate them to the concrete territorial reality. The constructions generated by these techniques are sometime hardly explainable to the broad public, and to those in charge with deciding on their relevance for the future development of their communities or territories.

One of the important issues related to the appropriate use of geostatistical approaches in territorial research relates to the choice of their different parameters. This is merely a corollary of the famous statement by Mark Twain – "There are three kinds of lies: lies, damn lies, and statistics". The choice of one approach or another might be a question of preferring disparities to continuity, imbalances to equilibrium, contextual relevance to replication, visual impact to scientific accuracy etc. The question becomes crucial when the output consists of hierarchies. Of equal importance, but from an epistemological perspective, is the question whether spatial relationships involve other relationships when applying geographical tools in different areas of research. Does geographical proximity (or clustering) indicate an aggregating trend or, on the opposite side, does distancing indicate avoidance? In many cases, results have clearly indicated that a relationship of a different nature has spatial consequences, but the reverse does not necessarily hold true. In other words, to provide an ecological example, if two species are symbiotic, they will cluster together, but clustering can also imply amensalism, comensalism, and even predatorism. Last but not least, results tend to show that abstract methods are more suitable for large systems and long periods of times, while the territorially-relevant methods are appropriate for the small spaces and short periods of time.

Keywords: *geostatistics, research, spatial planning, geography, transdisciplinary*
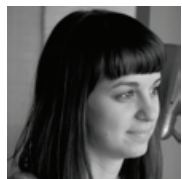
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Ionuţ ANTON

Assoc.Prof., Arch., PhD.,, "Ion Mincu" University of Architecture and Urbanism, Romania

ionut.anton@idz.ro

Ionuț Anton is currently Assistant Professor at the "Ion Mincu" University of Architecture and Urbanism, where he teaches Architectural Design. He graduated from UAUIM in 2005 with distinction and also holds a PhD in "Algorithms and Architecture", with the focus on the use of computational design in architecture. His research focus is in exploring how the digital media can change the way architecture is designed and made. He has taught several international workshops on parametric design and digital fabrication. Ionuț Anton is also owner and architect at IDZ Arhitectura a small architectural practice based in Bucharest developing parametric and algorithmic architecture

Daniela TĂNASE

Assistant Teacher , Arch., "Ion Mincu" University of Architecture and Urbanism, Romania

dana.tanase@idz.ro

Arch. Daniela TĂNASE graduated the Architecture Faculty at the University of Architecture and Urbanism "Ion Mincu" in 2010, and obtained The Grand Prize of the Architecture Annual (2011), Bucharest - The Diploma Project Section. She currently is architect at IDZ arhitectura S.R.L. and also Assistant Teacher at the University of Architecture and Urbanism, Design Studio Class. Since 2010, Daniela TANASE is PhD. Candidate at the University of Architecture and Urbanism "Ion Mincu", with the thesis research subject: "The Influence of Digital Fabrication Technology in Contemporary Architecture". Within the doctoral studies she is following the relationship between digital manufacturing tools and the architectural concept development.

Digital Design Process

Ionuț ANTON , Daniela TĂNASE

Abstract

From the survival need, or driven by his thirst for knowledge, Man has always build himself prostheses that would intensify physical strength, increase sensorial capacity or that enhance the brain functions: memory, judgment, information processing, communicational capacity. Digital technologies were originally used as prosthesis, not in the sense of replacing human involvement in the processes, but acting an extension of human abilities. Gradually, the computers became an associate of our intelligence, a space for developing our imagination and curiosity (Toffler, 1984, 173). The computer's algorithmic logic is insinuating in our behavior, in our logic and in the way we view the world, starting from the auxiliary role of prosthesis (Marcus, 2011, 112).

Technology is not only technical, but an active entity that transforms due to the new and different cultural effects (Feenberg, 1999). Technology, in this sense, is not an efficiency oriented practice measured quantitatively, but a qualitatively set of relations that interact with cultural stimuli (Rahim, 2005, 179). Digital technology influences the design of objects, which have an effect that influences the human behavior and thus causes the production of new tools. The computer is affecting its users, which are influenced by interaction with it and, in turn, have an impact on their environment. This cycle of emerging effects influence our cultural environment (Rahim, 2005, 182).

The computer offers the opportunity to designers to combine experience and intuition with logical reasoning, to combine their skills with the rational. As a tool, the computer can help us to achieve a more meaningful process, by helping us give shape to our ideas.

The conventional Computer Aided Design concepts, that mimic pen and paper with the mouse and computer screen, constrain the architectural language through libraries of predetermined architectural elements. The result was limiting

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architectural expression, using the excuse of increased efficiency and excluding an approach that uses less conventional components and configurations. The current parametric design tools bring more abstract building elements, a system that can modify, adapt, so that designers can make their own vocabulary of components. Now designers have the opportunity to define their own set of tools, but only after having understood and configured the algorithmic and geometric abstract (Aish 2010, 24).

Until recently the architects were waiting for other disciplines to develop tools and select from a catalog of possibilities. By doing so, they are not active individuals and they could lose their culture and characteristics, based of professional experience and knowledge (Kohler & Kara, 2011). By integrating software programming into architecture practice, digital tools are becoming themselves designed, and the whole process shifts towards materialization of the project.

Digital technology offers an alternative that has the advantage to use highly generic, adaptive and customizable tools. If the traditional architect had to work within the limits of the available means to manifest their creativity, the contemporary architect has the opportunity to design also his tools and to use them creatively in the design process.

The involvement of digital tools in the architecture practice transforms the core of the creative process. Through computation, the architect no longer designs the form to be produced, but the production process itself. The computational design product is no longer a building's representation, but the process of developing a logical sequence that generates an architecture object, which can be materialized through digital fabrication tools. Thus the design is addressed in abstract terms, in the sense of making connections that link the design principles, from symbolic aspects to materializing methods. In this context, scripting becomes a tool of the mind, evolving from a strictly technical action; it can be applied in architecture practice as a method of communicating the symbolic intentions (Reas & McWilliams, 2010, 15).

Through computational design, the project incorporates the idea and method of manufacture from the moment of its conception. This means that the building materializing process is integrated into the design process, as it was during the traditional craftsmanship period. Mathematics has effectively become an object of manufacture (Cache, 1998, 67). Through computation the project information is translated into data and linked together into algorithmic structures, processed and finally passed to the digital fabrication tools that are producing the physical object. Computation brings together both the creative thinking and the materialization process, and transforms the design and building process, moving toward a digital craft.

Digital design software today offers the opportunity to encapsulate design thinking in the form of algorithms and code. Architects are therefore able to translate their way of creating architecture into a form making logic. The latest developments in software, such as Grasshopper for Rhinoceros, offer a visual environment for designing algorithms, in which architects are not forced to learn coding, but can work with visual elements. By using such software, all the coding is hidden behind graphical representations that can be linked to form associative and algorithmic designs. The authors will present their own digital design process and their direct experience from working with digital tools.

Today's architects become more that just digital tool users, by using custom built fabrication tools and writing code, they become tool makers, involving themselves even deeper into the process of design and making.

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Keywords: *digital process, algorithmic architecture, parametric design, scripting, custom design tools, digital craft*

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Iuliana BUCURESCU

PhD, "Ion Mincu" University of Architecture and Urbanism, Romania

iulia_bucurescu@yahoo.com

Iuliana Bucurescu is an architect, with postgraduate specialization in Historic Monuments Restoration and advanced studies in Building Rehabilitation. University assistant at the Department of Architectural Conservation and Restoration in the city of Sibiu, an extension of the Ion Mincu University of Architecture and Urbanism from Bucharest. Member of ICOMOS Romania. She has recently completed her PhD thesis in restoration of historic monuments and cultural tourism, her areas of interest being the relationship between the tourism development and the cultural heritage protection, impacts of tourism in historic centers and heritage destinations, aspects concerning the authenticity and the sense of place.

Integration Of The Tourism Dimension In Sibiu Historical Town

Iuliana BUCURESCU

Abstract

Tourism and cultural heritage are the basis of two major, self-standing fields, both very complex and strongly developed, which are, in the same time, under continuous changes due to the evolution of their main concepts. Often functioning in parallel, these two fields may interfere at some moments, nevertheless, at certain levels – for example through common elements such as architectural heritage which is being used as tourism attraction as well.

The present paper is motivated by the contradictory aspects that appear in the relationship between cultural tourism development and preservation of the heritage values. While the relationship between tourism and heritage can be mutually beneficial, there are also negative aspects that go beyond physical alteration of that heritage, for example: an excessive consumption of the heritage, disneyfication, gentrification, restoration according to the expected touristic image, lack of authenticity, touristic needs that become at some point more important than the ones of the residents. Recent tourism development in Romania lead to valuable operations, but also had a rather destructive impact on architectural and urban heritage. Having also as an argument the present situation from Romania, where restoration and capitalizing of cultural heritage are mainly subordinated to tourism development (within the Regional Operational Project - P.O.R.), the paper will bring a contribution to the dialogue problems between tourism and heritage, by proposing concrete directions of action for the tourism development in historic centres in terms of sustainability.

The proposed paper will focus on the assessment of the capacity to absorb the tourism development in historic centres, in such a way that the inner values of cultural heritage assets are not affected. A working methodology considering seven main criteria will be presented, outlining the architectural and urban interventions that are necessary for the integration of tourism infrastructure in historic centres. The criteria proposed for this type of analysis are: state of conservation of the historic centre, connection of the historic centre with the rest of the town, elements in the proximity of the historic centre (in some cases, the buffer zone), urban traffic in the historic centre, integration of the tourism functions, urban historic image and elements of urban planning and architectural detail. Analysing tourism interventions in relation with the proposed criteria, should facilitate the integration of tourism developments without affecting the heritage values. These proposals will constitute a solid basis for future lines of action, by their integration in realistic projects of development and for outlining concrete working steps.

As a case study there will be presented the already well-known historic centre of Sibiu, the medieval core being subject for tourism development especially since the European Cultural Capital event in 2007. Growing around the three main squares, the mediaeval town achieved a good tourist reputation by developing a tourist infrastructure well balanced within the present urban territory. Analyzing the tourism development through the mentioned criteria, it could be proposed an architectural and urban planning integration of the tourist dimension, in terms

of a sustainable development too. In this concern, several urban connections between the main tourist assets may be developed from an interdisciplinary point of view. For example, from urban traffic point of view, pedestrian areas may attract locals and visitors as well, being able to absorb more tourism infrastructure, such as restaurants, caffes and even traditional commercial spaces. By the contrary, a street with an intensive traffic is going to be less frequented by visitors, thus not being able to absorb too many of the tourism infrastructure as the ones named before. In the same time, relating Sibiu's tourism development to it's surroundings, could be proposed a system of historic settlements from touristic point of view, based on architectural heritage, as well as traditions and local lifestyle.

As a conclusion, based on a very detailed analyse, architectural and urban planing recommendations may be done for a balanced and sustainable development of the tourism infrastructure within the mediaeval historic center of Sibiu. This approach is very necessary in order to be integrated in urban planning, as well as in tourism development strategies – in this way, the contradictory aspects that may arise from an independent functioning of the two fields (tourism and cultural heritage) could be managed in order to protect the values of the historical centre.

Keywords: *cultural heritage, cultural tourism, restoration of historic monuments, sustainable development*

Maria BOŞTENARU DAN

Dr. Dipl.-Ing., "Ion Mincu" University of Architecture and Urbanism, Romania

maria.bostenaru@iaim.ro

Dr. Dipl.-Ing. Maria Bostenaru-Dan graduated in architecture, focus on urban planning, at the University of Karlsruhe, Germany. She spent more than a decade abroad, in Karlsruhe and in Pavia, Italy. Funding was provided by either the German goverment or the European Commission (TEMPUS, Marie Curie). Since her return 7 years ago she works at the "Ion Mincu" University of Architecture and Urbanism. Apart of this she cooperates in international networks, such as 3 COST actions, an ESF one, and two ERASMUS networks. She spent short research stays in Portugal, Canada and Hungary. Recently she embarked a postdoctoral project from European funds at the University of Bucharest, and was awarded a Romanian government one for a stay in Rome, Italy.

Pioneer Women Architects - Lessons For Policy; Mapping The Role Of Women In Architecture In The West And The East

Maria BOŞTENARU DAN

Abstract

The paper aims to analyze first examples of Romanian women in architecture in comparison with women in architecture in Italy, as a pre-research for a fellowship in Rome of the first author. The work of these pioneer women architects is put in context of Eastern European contemporaries (Hungary) and is a start for looking at the later work of woman architects in Germany, from where lessons for policy can be learned. The analysis is based on the fact that looking to women in architecture we have to follow more dimensions: the woman as planer (architect) and the woman as beneficiary of architecture (either investor or user).

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Considering women as users a follow-up research of the authors will look at the spaces for women communities, such as spiritual ones compared to spiritual places designed by women. The German example we give here was chosen due to the historical roots from the time of pioneer women architects, and it concerns housing communities of women at IBA Emscher park.

Consideration is given to women as investors, as mecenes. Such examples are in Romania Marthe Bibesco and Queen Mary. We will consider the gardens of Mogosoaia and the gardens of Balcic, but also the castle of Pelisor and the second floor of the castle of Peles. Regarding the castles we highlight the connection to German architecture, an insertion of Jugendstil in Fachwerk. In Italy, we consider the gardens of villa Gamberaia under the Romanian princess Ioana Ghika. They served as model for the founders of Italian landscape architecture such as Pietro Porcinai and Maria Teresa Parpagliolo Shephard.

Considering women as planers we look to the Romanian examples of Virginia Andreescu Haret and Henrietta Delavrancea-Gibory. The figure of the first is connected to Italy through a mobility experience. The figure of the second is connected to the mecenate of Queen Mary in Balcic. In Italy, we look at Roman examples such as Elena Luzzatto, and Attilia Travaglio Vaglieri as well as Stefania Filo Speziale from Naples. The list might be enriched by figures from the north such as Ada Bursi. It is the place where the comparison to the context takes place. Virginia Andreescu Haret, Elena Luzzatto and Ada Bursi were among the first to work with reinforced concrete. An early example in Hungary is the civil engineer Eszter Pécsi. Elena Luzzatto worked also with Maria Teresa Parpagliolo Shephard in the design of cemeteries in Rome, and is thus close to the mentioned garden projects from the mecenate. Stefania Filo Speziale was working also at a similar scale, most notable edifices of her being those at Mostra d'Oltremare, an exhibition ground. Other early examples from Hungary to be shown include interior design, reminding the works of Queen Mary of Romania. But the most known Italian pioneer architect is Lina Bo Bardi. We approached mobility of women architects in several cases (Virginia Andreescu Haret from Romania to Italy and back, Maria Teresa Parpagliolo Shephard from Italy to England and back, the mobility of mecenes between Eng-

land and Romania and between Romania and Italy). But Lina Bo Bardi is the best example of mobility, although born in Italy, her main work was in Brasil.

Given the mobility dimension, this work is done in cooperation with the m-WiSET working group of the Marie Curie Fellows Association, with the goal to promote science policy for mobile women architects today, for example for the above named fellowship.

Keywords: *pioneer architects, Romania, Hungary, Italy, Germany, IBA Emscher Park, mecenate*

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Raluca POPESCU

PhD, Senior Lecturer (Conferentiar), University of Bucharest, Faculty of Sociology and Social Work, Romania

raluca.popescu@sas.unibuc.ro

PhD in Sociology, senior lecturer at Faculty of Sociology, University of Bucharest and senior researcher at the Institute for Quality of Life, Romanian Academy
Associated Lecturer, Faculty of Urbanism, University of Architecture and Urbanism Ioan Mincu, teaching "Urban Sociology and Demography" and "Empirical Study of Communities"
Over 13 years of academic research, extensive experience in empirical research (research design, quantitative and qualitative analysis, social evaluation)
Two books as author, 3 books as editor, several books as co-author and over 40 chapters in books and articles
Specialized in social policies, quality of life, study of values, sociology of family
Interested in urban studies, urban policies, cultural and sustainable development

Old New Space And Urban Culture - Case Study On Vasile Lascăr Street In Bucharest

Raluca POPESCU

Abstract

This paper seeks to embed the analysis of gentrification into the post-socialist urban development, as it unfolded in Bucharest's central areas, with a case study on "Vasile Lascăr" Street.

The Romanian society has been shaken by major events throughout the past decades, revealing, among other transformations, the emergence of the creative society, as well as new forms of urban expression such as revitalization and gentrification.

This paper tries to link social and cultural characteristics of the society that we live

in with the architectural transformations of the capital city. The theoretical background is the complex concept of gentrification, understood as a replacement of the poorer residents with new wealthier and better educated ones, an increase of businesses and property values in the area, a shift in the urban community lifestyle in general.

Gentrification of central areas in European cities and how this is influenced by urban policies is a widely debated issue in recent decades. The urban development in Romania was analyzed more from a policy perspective and less in terms of a cultural process even though culture is part of everyday living and represents an essential element of the urban transformation. Hence, the analysis focuses on the changing attitudes, lifestyles, and values of the middle and upper-middle-class in Bucharest.

The present study is part of a bigger research on gentrification of the central area of Bucharest. This paper presents the case study on Vasile Lascăr Street based on a qualitative research which combines participative observation and in-depth interviews with inhabitants. The empirical data gathered show that Vasile Lascăr Street is a good illustration of the transformation of space and consumption in the central areas of Bucharest, with old renovated buildings, sometimes with new modern extensions shaping experimental architectures, not necessary in a positive way. Many gentrification ingredients are present here, in the story of this street: new food-courts and slow-time spaces, commercial outlets for "educated" consumers, hand-made boutiques and commercialization of residential space. The interviews conducted with the inhabitants reveal that the gentrification process has three resorts here: economical (the growth of the house investing potential), political (city hall involvement in the modernization of the central area by urban projects) and cultural (the changing customs of the built space).

Changes over property rights (housing privatization and restitution), limited commodification, as well as the relative absence of capital created specific local gentrification dynamics different from the known western gentrification patterns. This particular local feature was strongly visible through the chaotic growth of the 1990s, attenuated by a more politically driven development after the 2000s. The struggle between the new buildings and the old heritage, between the new and

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the existing infrastructure has shaped significant redefinitions of the professional body and individuals' practices during the last several years. More so, today we find a growing civil society that is increasingly involved in the decision-making processes for better policies regarding urban life and culture. The conclusions of the study are relevant for the post/socialist urban space in general, showing that the transition period to a market economy has favored a spontaneous process of urban developments strongly determined by the private sector, with few constraints imposed by the public spatial planning state structures.

Keywords: *gentrification, urban change, post-modern society, urban culture, consumerism*

Riccardo D'AQUINO

architect, PhD, , Arkansas and Auborn University, Sapienza University - Rome, Italy

riccardo23@libero.it

Architect (chief designer and supervisor for architectural works and competitions) and Professor (under-graduate, graduate and post graduate level). Since 1987 he has practiced as an architect and has realized and published several works, mostly in archaeological and historical places.

Education
BA Arch., University "La Sapienza", Rome, Italy, 1984
PHD Design, University "La Sapienza", Rome, Italy, 1992

Teaching Experience
2014 – 2012 Faculty member, Architectural Design at the University of Arkansas Rome Center;
2014 – 2012 Tutor for Thesis at the post-graduate School of Monument's Restoration, University of Rome "La Sapienza";
2012 – 2002 Adjunct professor of Architectural Design at University of Rome "La Sapienza";
2012 – 2002 Lecturer for A.D.A. at arch. F. Vescovo courses "Design Without Barriers";
2014 – 2011 Visiting professor at Universitatea da Architectura si Urbaniçm "Ion Mincu" di Bucarest (Romania) with the School of Architecture of Pescara, University G. D'Annunzio;
2008 Visiting professor at the Ibaguè School of Architecture, Universidad de Ibaguè, Colombia;

Work Experience (representative works)
2014 Design for the Etruscan Archaeological site of Acquarossa (VT) - competition under evaluation
2014 Design for the waterfront of Soverato (CZ) - competition under evaluation
2014 – 2011 Design for three indoor neighbourhood markets in Rome (still in progress)
2014 – 2004 Design and Restoration for the basilica of S. Stefano Rotondo in Rome
2007 - 2000 Design and Restoration for the external areas of the Trajan's Market in Rome
2009 – 2007 Design and Restoration for the Roman Theatre at the Sanctuary of Ercules Vincitores at Tivoli (RM) (1st place in competition)
2008 – 2003 Design and Restoration for the Renaissance tower and gate in Gallese (VT)
2007 – 2003 Urban redevelopment at Finocchio suburb in Roma (along Casilina avenue)

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Awards

2011 - 2nd prize at Domus International Awards of Ferrara, for Design and Restoration for the basilica of S. Stefano Rotondo in Rome

Selected Publications and Recent Research

2014 Peer Review under the responsibility of Southeast University. (Chinese review) - Architecture and such things. Several works on the Trajan's Market archaeological area in Rome.

2014 Loggia. Arquitectura Y Restauraciòn. (Spanish review) Universidad Politécnica de Valencia - Works for the basilica of St. Stefano Rotondo in Rome.

2013 Arkos – Scienza e Restauro n° 1-2 Il Santuario di Ercole Vincitore. Editinera GEM

2011 Arkos – Scienza e Restauro n° 23 Restauri a Santo Stefano Rotondo. Editinera GEM

2006 Enciclopedia del Restauro, vol. VIII - tomo II - Mercati di Traiano a Roma, Torre di Gallese (VT), UTET

1995 Luogo, paesaggio e progetto. Osservazioni sulla lunga durata dell'immagine di Roma - Dedalo & Arte-fatto editori (book - 95 pages)

Professional Memberships

Registered Architect at the Ordine degli Architetti di Roma e Provincia - No.: 7943, 1986 – present

Across The (De)Sign

Riccardo D'AQUINO

Abstract

Drawing is the principal instrument of research and communication of Architecture, starting from the first image to the built results. The didactic purpose of Architecture is largely supported by drawing: students' academic career and professional development – representing the future of our cities – heavily depend on their architectural drawing skill.

The primary issue concerns the general comprehension of the instrument, its versatility and its correspondence to the project phases. During the phase of discovering and setting of the first image, namely the phase of initial reaction and answer to the requirements of Architecture, the drawing hand will be the leader of the project research: quick sketches are essentials for what Peter Zumthor calls
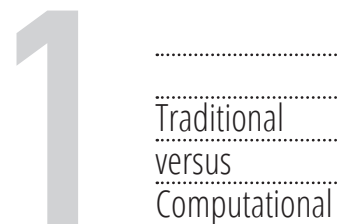
"promise" of transforming a geometric space into a Place (Pensare Architettura, Electa 1997). During the phase of design a much more rigorous drawing will be used, less synthetic and more analytic as the project develops: what was previously called "drawing by ruler." The executive phase, towards the construction, will demand to apply the technical information to the drawing in order to build a proper construction, "a regola d'arte": drawing will be detailed and essential in this phase. The aforementioned drawing process has remained the same, without any relevant variation, from 1794 after Gaspard Monge's lectures about the orthogonal projections (published in Geometrie Descriptive, Paris 1799); before that, the main instrument to foresee any construction problem and the architectural image was the model.

Photography is probably the break point of traditional project analysis, producing a visual synthesis of the logic steps of the project: the image comes to overlap the construction and vice versa. Any further analysis to explain the disciplinary stages of Architecture seems to be unnecessary and, apparently, in plain sight. Virtual reconstructions, allowed by modern technologies, represent nothing more than an upgrade of this photographic feature, picturing the synthetic view of the building from the beginning of the design process. The traditional analytic drawing of the building looses its importance and the project research comes to be synthesized in a virtual image without any knowledge of the construction details: the façade does not have to answer to structural or functional logic, it lives of its own life; plans and sections seem not to be needed anymore. This process becomes evident from the architectural productions of the Seventies, where conceptual projects replaced the interest for the construction. The extensive urban projects such as Roma Interrotta, the intellectual designs by Peter Eisemann, the architectural abstractions by Franco Purini represent clear examples of this "draft Architecture". At the time, one of the most famous and published drawing was La città ideale by Domenico Laurana, a totally conceptual space without any reason to be built. Likewise, in the contemporary literature, one of the most quoted writer was Italo Calvino and his book Le città invisibili, where the Place remains into a dimension of memory or interpretation rather than into a geographical space.

According to Louis Khan, Architecture is "the thoughtful making of space" (Perspecta n° 4, 1957): could its representation – the drawing – tell a different story endangering the core of Architecture itself? Does this issue concern drawing and its traditional-vs-modern instruments or rather does it concern its use "outside" the discipline of Architecture?

I think that these are the questions to be answered and my paper for ICAR 2015 could deal with the disciplinary relations between Drawing and Architecture, focusing on their didactic purposes.

Keywords: *drawing, project phases, photography, visual and draft architecture, architecture as discipline*

Mihaela (Bălan) LAZĂR

PhD student, assist. prof., "Ion Mincu" University of Architecture and Urbanism, Romania

mihaelabalan18@yahoo.com

Assistant in the Department of Interior Design Projection. Graduate of the Faculty of Interior Architecture, the "Ion Mincu" University of Architecture and Urbanism, Bucharest. 2010-present: SITT Doctoral School, Bucharest. Restoration practices inside the National Heritage Institute, Bucharest: The arrangement of the Sighișoara fortress' squares; proposals to restore the Suceava and Piatra Neamt fortresses. Participation in the architecture contest: The restoration of Gabroveni Inn in Bucharest, the initiation of its restoration and expansion project. Participation in AISU International Congress, Rome, co-author together with lect. Codina Dușoiu: "Spazi religiosi ortodossi costruiti a Bucarest dopo il Settecento e la loro protezione contro gli incendi". Participation in ICAR 2012 (International Conference on Architectural Research), Bucharest, UAUIM in the "Architectural Conservation and Restoration" section, with the communication "Fires and the Transformation of Bucharest. Some Changes Brought by Fires in the Urban History of the City", together with lect. Elena-Codina Dușoiu. Participation in organising the exhibition "București-Micul Paris", Brussels, September 2012, together with Prof. Cristina Gociman and lect. Elena-Codina Dușoiu. The organisation of the exhibition „Arhitecți români creatori de patrimoniu" within the Biennale of Architecture, Bucharest, October 2012, together with Prof. Cristina Gociman and lect. Elena-Codina Dușoiu. Holder of the "Vasile Pîrvan" scolarship within the Romanian Academy from Rome, postgraduate and doctoral research and training fellowship awarded by the Ministry of Education.

Urban Spaces Of Transition/ Interstitial Spaces In The Romanian Context

Mihaela (Bălan) LAZĂR

Abstract

In 1987, the Bruntland Commission approached the following topics: man's interaction with the environment, the need for a global vision and for common principles; the ties between economic and social growth and protecting the

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environment. The Bruntland report, entitled "Our Common Future", noted that "Sustainable development is not a fixed state of harmony, but rather a process of change in which the exploitation of resources, the direction of investments, the orientation of technological development, and institutional change are made consistent with future as well as present needs". Sustainable development is a holistic concept, combining social, economic and natural aspects, and is involved in two great issues of humankind: the ability to create and the ability to destroy.

The roots of the sustainable development concept are in promoting the sustainable use of natural resources. From the viewpoint of architecture, sustainable development refers to traditional methods of building, with traditional materials and according to traditional forms which preserve and save natural resources. Several researches conducted in past years define the typology of habitation as including an interior courtyard as one of the alternatives which adapt to the definition of sustainable development. Anticipating this direction, for the 1956 "This is tomorrow" exhibition at the Whitechapel Art Gallery, architects Alison and Peter Smithson (of the great generation of modernism, together with Le Corbusier, Walter Gropius, Mies van der Rohe) created an installation called "Patio & Pavilion" with the help of which they defined: "(…) the fundamental requirements of human habitat. The first requirement is a small part of the world: the patio (the interior courtyard). The second requirement is a closed space: the pavilion". With this declaration, the two architects emphasized the importance of interior courtyards within modern constructions, and they created a manifesto promoting the use of valuable traditional elements in new architecture.

In Romania, in the period between the two wars, G.M. Cantacuzino wrote in his 1934 book Arcade, firide și lespezi (Arcades, Gullets and Flags): "I was always astonished by the fact that, except for rare cases, the method of interior courtyards was not used, and that method would be in perfect harmony with our climate. […] When one draws the plan of a house on the ground, one must concomitantly think of the garden, too. Instead of being reserved to servants, wood stocks or chicken coops, courtyards should be reduced wisely in favor of gardens which could sometimes be surrounded by arcades".

Several questions arise from this, obsessively recurring interrogations over time and over the study of transitional spaces: Why don't we build interior courtyards anymore? Can the interior courtyard be a viable method of building for the contemporary period and for our country? What are the elements that make them valuable and what makes them so particular?

The current study focuses on the role and metamorphoses of these spaces within buildings, and it offers applicable examples of re-using interior courtyards, but also a concrete explanation of the necessity of interior courtyards within these new constructions. Therefore, the paper proposes to approach certain historical, functional, environmental, symbolistic and philosophical aspects regarding interior courtyards and their stylistic evolution.

Keywords: *public, private, interstitial spaces, courtyards housing*

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Ioana MORARU

PhD, tutor, "Ion Mincu" University of Architecture and Urbanism, Romania

ioana.moraru@yahoo.com

Ioana Moraru (1981, Bucharest, Romania) is a PhD architect, tutor at "Ion Mincu" University of Architecture and Urbanism, Introduction to Architectural Design Department.
She graduated at "Ion Mincu" University, the Faculty of Architecture, in 2006. She spent one year at the University of Karlsruhe, Faculty of Architecture as an Erasmus student. After graduation she completed her internship in Bucharest. In 2009 she received a doctoral grant, following specialized studies at "Ion Mincu" University and Technical University of Delft, Faculty of Architecture, where, along with research, teaching was a constant activity in both educational institutions. She published articles based on the doctoral research topic.

The Influence Of Computer-Aided Design On Topographical Architecture

Ioana MORARU

Abstract

Topographical architecture is the result of a collaborative process and a close relationship between architecture and landscape and refers to configurations perceived as topography, as a landform, as a part or a continuation of the land. Architectural theory mentions this approach as a trend that appeared around the 60s. However, this is not an innovation of the contemporary world, but a rediscovery, a take over and a refinement of certain archetypes that emerge together with the idea of human community, long before the development of architecture as science and art of building. The question that arises is: if topographical architecture seems to be one of the first forms of architecture, how is it that today this approach raises more problems than traditional tectonics?

Some of the starting points of contemporary topographical architecture are on the one hand the desire to achieve another kind of configurations that adapt harmoniously to the context, whether natural or artificial, without creating discontinuity, and on the other hand the attempt to create an architecture able to cope with the rapid changes that characterize the present-day. Ever since the past century, topographical architecture was seen as a way out of standards that became possible at urban or landscape scale with the proliferation of media and design methods.

Computer-aided design (CAD) is one of the most important achievements of the last decades, which generally influenced the design process of architecture. If CAD is no more than a quicker drawing instrument that allows easier modification, leading to standardization and precision at a larger scale, for others, it represents a way of taking architecture to another level, allowing the creation and visualization of a different kind of architectural objects. But the major advantage of computer aided design is not only that it facilitates imagining architecture, creating a visual placeholder and producing virtual descriptions and simulations closer to reality, it is also used in solving actual problems that arise with complex architectural geometries. There are architects that use CAD not only in the design process, but also in the production of building components that are achieved by cooperating all data and translating them into the production technology. Frank Gehry uses such a software suit called CATIA (Computer Aided Three-dimensional Interactive Application), a platform that combines Computer-aided design with Computer-aided manufacturing and Computer-aided engineering.

We can analyze the influence of CAD on topographic architecture through some examples. In contemporary architecture a few architects stand out, and their work was significantly influenced by CAD, revealing to them new directions that intersect with topographical architecture. We can name here Peter Eisenman and his project The City of Culture of Galicia, which is based on the concept of palimpsest - it virtually superimposes three layers in order to achieve a final result (the first layer is the city plan overlapped with the topographic map of the hilly site; the second is a modern Cartesian grid, placed over the medieval routes, and the third is a digital distortion of the first two layers, depending on the topography of the site) thus producing a folded surface. CAD also had a significant and increasing influ-

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ence on the projects of Zaha Hadid. In her topographic works she manipulates different plans and the terrain by working with cuts and folded surfaces and the architectural object can be modeled as a fluid, flexible and dynamic element. FOA works with topological surfaces managing to generate the building organization on the circulation system, in the case of Yokohama Terminal. The architects wanted a space different from those generated by the concrete frame structures, where the pillars are always present and the directionality is given by the movement. They managed to solve the architecture, structure and circulation system by using a single common element. Many of the buildings designed by FOA are conceived as a species for a particular ecosystem. Their goal is to build what emerges from the ground, coming as an antidote to traditional practices that generate stereotypes in architecture and to homogenous globalization.

It is known that the transposition of the project to built object is always likely to cause problems. But for topographic architecture even the design process is problematic, because many times one must shed former design strategies and thought patterns and start anew, with a different approach. Working with the earth implies a re-articulation of the materiality, depending on the type of intervention exercised on the ground surface. CAD allows working with the land as a malleable material, and in the same time facilitates a permanent comunication with the context.

3D visualisation allows us to break free of orthogonal design and the customary forms of traditional architecture and try new possibilities and options. Thus, traditional architectural elements like walls, roofs, doors, windows, as we know them are abandoned, introducing a novel creative freedom which allows for a design process that involves both architecture and environment, the two considered a whole. Topographical architecture is percived as an alternate nature and the relationship between building and landscape acquires new standards and values. The landscape is a basic component, a "building material" for architecture, not its backround. Broadly speaking, topographical architecture respects and puts forward the environment in which is integrated. In terms of ecology and sustainability, topographical architecture is one of the most eficient forms of architecture, that restores and gives nature a just position in our everyday life.

Topographical architecture has depended on the development of CAD to a certain extent, introducing new directions like parametric architecture or topological approach that allowed achieving organic configurations, thus facilitating the insertion of the built object into nature by adapting it to the ground. CAD allowed refinement and the creation of complex configurations, a better manner of controlling and handling forms, especially when it comes to transitioning from built object scale to large-scale territory design and to a better contextualization of the built objects.

We live in a world which is increasingly dependent on instant comunication, digital manipulation, mass production of virtual spaces and abstration and we lose the sense of reality. Today, manifestos and architectural experiments proliferate in the virtual space created by 3D modeling programs. CAD contribution to topographical architecture highlights concrete results, because more than any other type of arhcitecture, topographical arhitecture gives back the land and helps retrieving the sense of reality of place.

Keywords: *virtual representation, creative freedom, complex configurations, topological surfaces, fluidity, flexibility, alternate nature, large-scale territory design*

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Alexandra VIŞAN

PhD, "Ion Mincu" University of Architecture and Urbanism, Romania

alexandra.visan@yahoo.com

Alexandra Vișan (1986) is a PhD. and works as a teaching assistant at The University of Architecture and Urbanism "Ion Mincu"- Bucharest (UAUIM). In 2011 she graduated the Faculty of Architecture at UAUIM at the top of her class and received a "Bene Merenti" Medal. Between 2008-2009 she studied at ETSAV-UPC. In 2014 she presented her thesis titled „The tactile-kinaesthetic perception of the architectural space" and she was granted the Summa Cum Laude honor at UAUIM and one of the Creativity Prizes ARCUB-UNATC.

The Necessity Of The Tactile Dimension In The Architectural Education

Alexandra VIŞAN

Abstract

Contemporary architecture has become an ambiguous play of transparencies. Due to the decoding difficulties, the individual for whom it was built starts feeling alienated. This consequence is generated by the nature of the approach that the architects have regarding the built environment. Often enough specialists tend to focus only on the visual aspects, and neglect the material substance of the building, thus creating an impersonal architecture. Computer representations, some of them so precise, treat buildings as mainly visual objects. They do not take into account the tangible characteristics of the spaces we live in. Ignoring gravity and materials' properties generates a lack of stability and security and leads to the alienation of architecture from its users.

In the past the study of architecture implied a proper knowledge of materials, both in terms of efforts, the way in which they evolve through time and their significance. The evolution determined by the Industrial Revolution generated new products which themselves created new ways of building. Furthermore, the new tools available to architects did not bring only benefits, but affected the physical relationship established between the creator and the art of building which became too superficial. Education in architecture should focus on the study and the understanding of the relationship between the architectural space and its users. We perceive the architectural space by means of our body which represents the centre of our perception. Moreover, the interaction between architecture and the individuals has not only a visual nature but a tactile-kinaesthetic nature too. Phenomenology specialists have been drawing attention to the importance of the senses in architecture, both in terms of perception and in the design of the architectural space. Architects conceive spaces based on their past experiences, their memory influencing the choice of materials and textures, understood as components of a larger concept - the tactile dimension. Our skin comes into direct contact with architecture's shell, and touching implies both the existence of the tactile component and of the kinaesthetic one. We touch to experience, to verify and to create architecture. Without touching we are not able to profoundly understand the architectural object which is essentially a living body. Based on this direct relationship, we, as human beings, perceive the tangible aspects pertaining to the architectural space. The expressive images that are used in architectural education are not sufficient to express the essence and the stability that the building environment possesses. From our point of view, the decoding of the architectural space cannot be reduced to volume decomposition, since it should actually start from the consequences that the surfaces' qualities have on individuals. The vocabulary of architects to be should be based on a profound knowledge of materials and their metamorphosis. This is possible only with a deep understanding of the implications of the built environment that can be obtained only through a tactile relationship. Memory is able to connect us to past experiences, to characteristics felt before, based on a tactile exploration. This is why we are apt to feel the qualities of space just by seeing surfaces, without actually having to touch them. Thus, the aim of the paper is to draw attention to the importance of the tactile component in the study of architecture, emphasizing that it is necessary for specialists to be aware of the implications that the built environment has on its users.

Keywords: *Tactile, kinaesthetic, education, surfaces, materials, textures*

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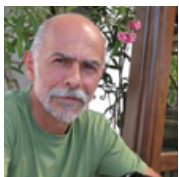
Iulian GUDINĂ

PhD, Assoc.Prof., "Ion Mincu" University of Architecture and Urbanism, Romania

iulian.gudina@uauim.ro

Assoc.Prof., Basis of Architecture Department, leading design studio 2nd / 3rd year of study — University of Architecture and Urbanism "Ion Mincu"

2009: Doctorate in architecture

1999-present: Teaching apllied architecture - UAUIM

1992-2012: Associated architect — private practice

1987-1997: Architecture practice — different private or state design offices at home or abroad

Over 100 architecture works — projects / realized (housing, public, industrial, health buildings, interior design)

Over 20 smaller urban projects

Over 30 offers, studies, competitions

A few articles, author in edited volumes, presentations at national or university conferences

3 Steps From Land To House. A Study On A Guest House For Cave Explorers And Divers, Isverna, Mehedinti

Iulian GUDINĂ

Abstract

The Physical Context

In the village of Isverna from Mehedinti County there is a unique natural element: Isverna flooded cave, an attraction for amateur and professional cavers who can do here surface and, especially, underwater exploring. In 1990, with the support of J.Y.Cousteau, the cave was declared a nature reserve of European value and is currently in custody of the Underwater Exploration and Speleological

Group. On a plot located opposite the entrance to the cave, over the brook called "Cave Water" which springs from it, the group wanted to establish a boarding house with semi-private use, which was meant to support their caving activities and would include common spaces for group activities and meal, room accommodation and spaces for diving equipment. The land is located in the west of the village, in a special place called "Village Head" and descends towards the water in a variable slope.

The Cultural Context

Mehedinti County – along with Olt, Dolj, Gorj and Valcea counties – is part of Oltenia region, a well-defined cultural area, the homeland of Constantin Brancusi and of the fortified "cula" houses. The traditional architecture provides so powerful references that almost lays at hand a way to build even now-a-days.

The Approach

The practical approach of the project is based on a personal theoretical model of intervention in the existing environment, may it be natural or built, seen as a process with certain stages that can be identified as being the same no matter the situation. The conceptual approach is that of using traditional-historical elements from existing architecture in order to build within strong cultural areas.

The Process

Preparing the steps means building the program according to the objective needs and to the personal believes. It means having some pre-defined criteria of intervention and guessing the methods that will become clearer along the way.

Step One (the Research)

Acknowledgement, stage of analyzing the existing environment, based on a combination of factors and criteria that make it possible identifying (on one hand) elements with a certain importance, consequently the recognition of their value (on the other hand). In this case:

a) The site itself, a privileged place at the end of the village, just across the entrance into the cave. The research points out its valuable topography, orientation

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and position.

b) The landscape (village included), both geographical and cultural valuable. Local architecture blends into the hill-and-valley surrounding, along with natural elements like stone passages and bridges in the region.

c) The flooded cave, a natural monument of European value, renowned for its speleological importance in surface and underwater exploring. It proved to be the major existing element that the project concept should focus on.

Step Two (the Project)

Retrieving (in terms of recovery / regaining) the valuable elements recognized before, put together by insertion of meaningful architecture in the land:

a) Architecture links the village to the site and orient interest to the most precious element of the existing natural environment, the cave. The proposal involves community in using local materials, techniques and labor.

b) Architecture brings in traditional references meant to be familiar in the local area. The project makes use of volume composition, outside/transition/inside spaces, construction materials and expression extracted from the most valuable examples of traditional architecture in the larger area.

c) The empty "field" becomes a place. The "house" fits in the scale of the place. The place becomes part of the community.

Step Three (the Intervention)

Revival of the natural and cultural assets through intervention (architecture), which can valorize their possibilities of regeneration within unchangeable values, while adding its own:

a) Architecture gives meaning to the land by introducing utility. The new building provides support for the natural attraction and increases the tourism potential of the place.

b) Architecture claims itself, while keeping a respectful balance with the environment. The two-volume "house" stands visible on the site ridge, occupies rationally

the plot and makes use of the field slope. It is firmly oriented to the cave, while offering the main access to the village and opening to the view and sunlight.

c) The intervention is more oriented to the re-interpreted past than striking new. The respect of tradition and the recognition, regain and revival of the above mentioned valuable elements leads to sustainability and continuity.

The Outcome

The study developed into a project drawn up to the building details. The client, the promoter and the authorities assimilated it as a favorable intervention for the local community. It eventually stood by due to the lack of European funding.

The result of the research and design process is a reflection of those initial criteria and methods. It should reflect the strong belief that even in this computer generated powerful images era, tradition stands above commercial and value above performance.

Keywords: *intervention, existing environment, natural or built, traditional-historical elements*

3 Steps From Old To New

Iulian GUDINĂ

Abstract

A study on refurbishment of a countryside house, Berevoiesti, Arges

The practical approach of the project is based on a personal theoretical model of intervention in the existing environment, may it be natural or built, seen as a process with certain stages which can be identified as being the same no matter the situation.

The conceptual approach is that of using traditional-historical elements from existing architecture in order to build within strong cultural areas.

(Note: This presentation and the one called "3 Steps from Land to House" are part

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of the same concept, two sides of the same research)

Preparing the steps means building the program according to the objective needs and to the personal believes. Having some pre-defined criteria of intervention and guessing the methods that will become clearer on the way.

Step one

Acknowledgement, stage of analysis of the existing environment, based on a combination of factors and criteria that make it possible identifying (on one hand) elements with a certain importance, consequently the recognition of their value (on the other hand). In this case:

Age value, that comes today before historical or architectural ones.

Affective (emotional) value, a family asset.

Utility value, a strong built stone and brick house that stands.

Cultural local value, it has some traditional domestic architectural elements.

Step two

Retrieving (in terms of recovery / regaining) the valuable elements recognized before, which firstly means the decision to keep them. The methods of intervention used:

Adding – new spaces and volumes to serve new function (summer camp).

Overlapping – new openings connecting significant spaces to the outside, elements of protection and decoration.

Step three

Revival, which means the perpetuation of architectural elements recognized and recovered by exploiting their ability to adapt, change and regenerate in a practical and aesthetic way:

The house kept as a whole gain new life and utility.

Architecture gain new meaning while keeping into tradition.

Intervention provides discreet force of expression.

The outcome is a reflection of those initial criteria and methods. It should reflect the strong belief that even in this computer generated powerful images era, tradition stands above commercial and value above performance.

Keywords: *intervention, existing environment, natural or built, traditional-historical elements*

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Mihaela (Bălan) LAZĂR

PhD student, assist. prof., "Ion Mincu" University of Architecture and Urbanism, Romania

mihaelabalan18@yahoo.com

Assistant in the Department of Interior Design Projection. Graduate of the Faculty of Interior Architecture, the "Ion Mincu" University of Architecture and Urbanism, Bucharest. 2010-present: SITT Doctoral School, Bucharest. Restoration practices inside the National Heritage Institute, Bucharest: The arrangement of the Sighișoara fortress' squares; proposals to restore the Suceava and Piatra Neamt fortresses. Participation in the architecture contest: The restoration of Gabroveni Inn in Bucharest, the initiation of its restoration and expansion project. Participation in AISU International Congress, Rome, co-author together with lect. Codina Dușoiu: "Spazi religiosi ortodossi costruiti a Bucarest dopo il Settecento e la loro protezione contro gli incendi". Participation in ICAR 2012 (International Conference on Architectural Research), Bucharest, UAUIM in the "Architectural Conservation and Restoration" section, with the communication "Fires and the Transformation of Bucharest. Some Changes Brought by Fires in the Urban History of the City", together with lect. Elena-Codina Dușoiu. Participation in organising the exhibition "București-Micul Paris", Brussels, September 2012, together with Prof. Cristina Gociman and lect. Elena-Codina Dușoiu. The organisation of the exhibition „Arhitecți români creatori de patrimoniu" within the Biennale of Architecture, Bucharest, October 2012, together with Prof. Cristina Gociman and lect. Elena-Codina Dușoiu. Holder of the "Vasile Pîrvan" scolarship within the Romanian Academy from Rome, postgraduate and doctoral research and training fellowship awarded by the Ministry of Education.

Raluca-Diana DIACONESCU

PhD student, Spiru Haret University, Romania

raluca19diaconescu@yahoo.com

2014-2011 - Lecturer at Faculty of Architecture, Spiru Haret University, Faculty of Architecture, Department of Design & Restoration Proiect
2011-2008 - Contributor assistant at the Faculty of architecture, Department of Design, Spiru Haret University, Bucharest, Romania
2010-2005 - sc3.2.B- Office of architecture srl - Administrator, Architect
2005-2004 - architect employed at sc Transalpin s.a.
2003-2000- SC IPTANA SA / Ministry of transport Reference work – Aeroport International Otopeni, Architect
1991- graduated High School Literature history "M. Eminescu" Iassy,Romania, (Math-Physics profile)

Education and training:
2012 – 2013 - Phd visiting student at Politechnical Institut Milano, Italia
2013 -Italian language courses, Comune di Milano- Politiche del lavoro e Universita,Centro di Formazione, Corso XXII Marzo, 59, livello B1,
2013- CILS, SIENA- graduated exams for Certificate of Italian Language B1
2014-2010- Phd student at Politechnical University Cluj-Napoca, Romania
2012- I graduated in the field of Quality Auditor
2012 – English, graduate ECL-European college language certificate, level B2
2011- Postgraduate studies - Restoration of monuments, ensembles and hystorical sites, University of Architecture and Urban Planning, Ion Mincu, Bucharest-Romania
2011- Psihopedagogical Education, level II
2010- Psihopedagogical Education, level I
1998-1992- Faculty of Architecture, G.M. Cantacuzino, Gh. Asachi Technical University of Iassy, Romania

Collaborations:
2003- Advisor - Library Information Construction Urban Planning And Architecture – Architecture And Urban Planning Of The University Ion Mincu, Bucharest, Romania (BICAU)
2004-2001- ARCHITECTURE MAGAZINE - 2001- 2004 (Publications)
Workshops:
2003- (january-february) workshop Florence – THEME "URBAN LAB IN FLORENCE ",
2003- (april) Chaillot Paris, courses and practice for architectural project

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Symbolic Architectural Monument Of The Romanian Elite

Mihaela (Bălan) LAZĂR, Raluca-Diana DIACONESCU

Abstract

In the context of modernity, the beginning of 20th century meant for the Romanian elite, as well, an opening towards the European academic environment which could stand as viable model for the young developing Romanian intelligentia. Was there need for a Romanian school in Rome? What triggered the construction of a new building, and may we say that, from an architectural viewpoint, this building is a symbol of the Romanian elite?

Established in 1920 by Vasile Pârvan, its first director, the Romanian School in Rome only began its activity in 1922 due to the lack of appropriate premises to accommodate the needs of a complex institute.

The talks regarding the establishment of Romanian schools in the great capitals of Europe date back to before the beginning of the First World War, and their purpose was to create new cultural institutions for the study of Romance history and philology, for carrying on investigations in the great European archives and libraries; these institutions were meant to promote the research in university disciplines which were not yet being taught in the country.

In Rome, after many tries and propositions, between 1928 and 1933, the building in Valle Giulia was being erected, a building which was supposed to ensure, on the one hand, a representative image for the Romanian elite and for the national spirit, and, on the other hand, to fall naturally into the area's general environment. (The ground for this building had been leased since 1921 and, all around, the construction of today's still-standing edifices had already been initiated).

The building outlined by architect Petre Antonescu is a monument of extreme architectural value, impressive through its positioning and shape; in time, this building became a symbol image of the Romanian academic environment in Italy.

The current paper aims at presenting both the preceding stages of the construction and the efforts made to erect this building matching the cultural elite which was supposed to be sent there for studies and gaining knowledge from the West's ongrowing experience. A young elite open to Western experience needed a building especially designed to serve this purpose.

In an article dedicated to the Romanian Academy, Italianist Alexandru Marcu, one of the institution's first fellows, emphasized the importance of the institution and of the building: "Objectively, the academic institution which its facts and over two-decade long past eulogizes is meant to ensure the Romanian intelligentia and our university life personalities trained in this environment of supreme style… But, subjectively, the Romanian School in Rome presents an added quality, whose spiritual value cannot be overlooked. … This school takes on the responsibility of maintaining and strengthening the programme of great former Latinists, based on humanist and national grounds. … With this purpose, it also takes on to maintaining alive a conscience, which represented not only a reason for pride, but also the very firmness of the historical existence of a people of workers and soldiers for a cause which, national as it was, managed to integrate itself within the lines of European historical evolution; of that Europe where Rome, through new historical forms which it created and re-created, had a great say".

Keywords: *Accademia di Romania, monument of architecture, symbol*

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A Monument, An Architect, A Restoration The Restoration Of The Potlogi Palace 1954/56 Architects: Ştefan Balş, R. Udroiu, R. Mănciulescu, Eng. I. Hossu

Raluca-Diana DIACONESCU, Mihaela (Bălan) LAZĂR

Abstract

"The monuments did not want to leave me"

In 1698, on the Potlogi estate, Constantin Brancoveanu started to build a new royal house and the first of the four palaces intended for his sons: Constantin, Stefan, Radu and Matthew. The new building of imposing dimensions, unusual for that time, was fully erected in the autumn of 1699. The historical circumstances made that, after 15 years since it's completion, the palace had to be robbed and abandoned. One hundred years later it was already in ruins. Since then the building has been exposed to the weather, year after year, being brought in a very advanced state of ruin. The purpose of this paper is to briefly outline the history of the ‹Brâncovenesc› monument, to present the architect and the team that was dealing with the restoration and to describe their approach to the work done in the mid 50's.

The architect's name, Ştefan Balş, is inextricably and naturally linked to the architectural restoration in Romania. Between 1922 and 1928 he attended the Faculty of Architecture in Bucharest, having as teachers professors like Petre Antonescu and Paul Smărăndescu. In 1928 he receives a two years scholarship to Accademia di Romania in Rome, where he had the possibility to attend Professor Gustavo Giovannoni's lectures at Universita La Sapienza, and to study restoration projects from some important sites from Italy. He prepared for his future specialization, not expecting to that, as he was saying many years later, at 81 years, "I wouldn't know that I will like it so much that I will never leave it during my lifetime".

The restoration of the Potlogi Palace, carried out by a team led by Ştefan Balş, wanted to be a reconstruction through the additions necessary to restore the shape, the volume and the original decoration, executed on the basis of documents, surveys, copies or interpretations of similar items found in monuments from the same age. The ultimate goal was to bring back into service and to restore the old look of the entire Court, aiming to preserve the monument within its original context.

In an issue of the Architecture magazine, the architect Ştefan Balş was describing the steps followed on the restoration and the conclusions that were reached after the research: "In the state that it is today, the Potlogi Palace it is only a ruin, an object of study for researchers interested in the mysteries of the past. Following restoration, it will reappear in its old coat, as a vivid picture of artistic craftsmanship of the people. This way, the Romanian architecture regains a link to the work of craftsman Brancoveanu, and between the starting point of the Hurez monastery and the endpoint of the exuberant carved stone decorations of the Mogosoaia palace. By extending the work to the entire ensemble it is taken the first step on a path that should be followed by the restoration approach on our most important monuments. Neglected so far, this modifying action to amend or even to create a more adequate framework – the only one able appreciate the real value of these art objects - must constitute one of the main points to follow in the restoration projects of today"(Arch. Ştefan Balş - Architecture Magazine 1960). By this confession, the architect declares his position on the restoration process, that should start from deciphering in the walls of the monument of the items that changed or are missing, through the execution of a research and surveys as accurate as possible, everything in the idea of observing the succession of all historical stages inscribed on the monument to help restore the original appearance.

This way he defined a traditional method of restoration based on same principles to which the architect was remaining faithful his whole life and so he was marking one of the main directions for the national heritage conservation.

Keywords: *restoration, monuments, brancoveanu's architectural style, neo-romanian style*

Ana Maria HARITON

Associate Professor, Spiru Haret University, Faculty of Architecture, Romania

anamariahariton@yahoo.com

Architect - graduated from Ion Mincu Institute of Architecture in 1982, PhD U.A.U.I.M. 2007
Practicing architecture since 1982.
Collaborator of U.A.U.I.M (1995-2000, Synthesis of Architecture chair).
Teaching at Spiru Haret University since 2001. (Design Studio - Synthesis of Architecture and Theory of Architecture)

Instant Illumination And Fortuitous Discoveries – Sketching In The Digital Era

Ana Maria HARITON

Abstract

The contemporary discussion on the question of hand drawing versus computer generated images (extending also to architectural creation as complete process) is certainly one of the most interesting subjects in architectural research,. Usually the authors tend to favor one of the methods advocating for the primacy of drawing/ sketching at least in the initial phases of design (Pallasmaa 2009) or even as a representational tool (Wines 2009) while some adepts of computer assisted design are convinced that the computer is much more than a tool, being able to generate complex architectural solutions (Terzidis, 2006). Some authors focus on representational techniques (Schanck Smith 2008,Zamora Mola 2010), others emphasize the steps of visual thinking as appearing in sketching (Goldschmidt 1991) or in their transposition in computer aided design (Do and Gross, 1997).

This presentation summarizes the multiple tasks fulfilled by sketching in the process of architectural design as a means of not only visual but emotional thinking.

In the last 20 years the introduction of free form modelers, then the use of coding software for design provided a tool that opened new horizons to the elaboration of forms and structures. Many architects use now the computer from the initial phases of design. Sketching tends to become an optional and maybe outdated skill. However due to its multiple and evanescent qualities sketching remains an unparalleled way of giving form to our thoughts.

By sketching we express our thought externally, examining and reinterpreting it in a continuous process of evaluation. The role of initial drawings in architecture is not necessarily to shape form but to facilitate the relationships between imagination, memory and thinking. Sketching incorporates our subjective experience and, through externalizing, enhances our capacities of visual thinking. These observations apply particularly to one category of sketching, the so called "thinking sketch". In fact all types of sketching are linked to our empathic understanding of reality, relating to more levels of being than the simple logic of visualization and incorporating a type of diffuse, emotional data impossible to render in an ideal algorithmic pattern.

Sketching is not about exceptional drawing abilities.

A great number of teachers complain about the disappearance of drawing abilities, mainly because drawing is neglected in high schools and also threatened by computer programs. There has also been an intense debate on the quality of computer representations that lack finesse and poetic qualities. All these setbacks can be (and are) easily eliminated in good computer renderings by the use of complementary programs or techniques (Photoshop, collage, etc.)

The utility and superiority of sketching resides in the fact that it is not (only) a representational ability but a modality of thinking.

The history of architecture is full of examples of great architects that had "poor" drawing skills.

By studying their sketches, and even representational drawings, we witness a pro-

cess of visual and emotional thinking that succeeds in emphasizing the essential qualities of the design. Their sketches, created through intellectual and emotional engagement, offer not photographic precision but density of thought, generating visions of the building.

How, and why do architects sketch? Their goals and methods seem to have a constant: gaining access to their most deep and complex thoughts.

Discovering through the sketch

There are two main modalities of discovery associated with the sketch:

The first one is partly intentional. We sketch in order to enhance our capacity of mental imagining. Mental imaging is done with a facility of cognition (having a limited capacity) within the short memory called the "visuo-spatial sketch pad". Complex tasks that exceed this capacity need to be externalized in order to supplement our visual way of solving problems through "spatial paralogic". Discovery can occur in this phase of externalizing when we know partly what we are looking for, and try to offer a first solution to our problem through sketching.

The second one is unintentional and based on the inherent characteristics of the sketch. Compared to the exactness and clarity of computer drawings, sketches are dense and ambiguous allowing for transformation and lateral thinking. Reading between the lines, analyzing unintentional slips of the pencil is a source of continuous discovery based on what the architect can visually perceive in the superposition of inexact contours.

Recording visions

Being rapid and spontaneous, the act of drawing is the best means of capturing mental images. It is the way many contemporary architects use the sketch for rendering a strong initial idea. This corresponds very much to the well known Picasso quote: "I do not seek, I find" describing the fulgurant process of image creation in the visual arts.

"Theoretically, as long as a problem can be defined in logical terms, a solution may be produced that will address the problem's demands" says Kostas Terzidis,

one of the best advocates of computer design. A part of the problem can certainly be defined in logical terms, but what really makes great architecture are the innumerable factors that cannot be expressed logically, the emotional, subjective, personal decisions that we take during the elaboration of the architectural solution. In dealing with this type of emotional thinking, sketching still remains the most adequate means of expression.

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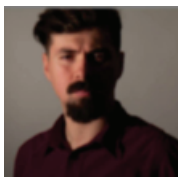
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Gabriel-Ionuţ MÂNDRIŞCANU

Assist. Prof., "Ion Mincu" University of Architecture and Urbanism, Romania

gabriel.mandriscanu@gmail.com

Metamorphosis. Traditional Ornaments In Contemporary Design

Gabriel-Ionuț MÂNDRIȘCANU

Abstract

In the past, returning to the roots of Romanian architecture was like a breath of oxygen and a source of inspiration, but were reached opposite extremes between total rejection and excessive idealization. It may be the time to find a midst attitude towards traditional architecture heritage, considering the ornament as the main path. Therefore, a new eye return to traditional Romanian architecture is not only predictable, but probably will be considered again, the correct approach to the problem of national identity in the europeanisation context.

The romanian design market has radically transformed in the last 5 years, in a way that more and more of those who are involved - designers, design shops, producers, specialised media - understand the importance of this developing industry.

Designers have begun to create various types of objects: furniture, lighting fixtures, jewelry, decorative objects. Concept – stores specialised in promoting romanian design have started to appear on the market. Manufacturers are more involved, alongside the designers in order to give shape to their ideas, often supporting the effort of investing in prototypes. Websites and print media often addresses issues related to inland creations. Conferences, workshops, debates, festivals, competitions, design fairs prove that the whole context has become more forgiving and more open to this matter.

In this context, we can clearly distinguish a new wave of creatives that address romanian inspired themes. First of all, it is about quantity. Many objects, inspired by the romanian ethnography are being produced and the most of them use romanian ethnic motifs, that were originally sewn on costumes and wall rugs. Secondly in use, are the motifs that are carved wood and then, more general forms and concepts, that are specific to the romanian tradition.

There are two directions in the romanian traditional – inspired design. On one hand, excerpts from existing works are being taken or reproduced, exactly as they have been "collected" and then, translated into a contemporary context, either alone or together with new elements. On the other hand, there are the new creations that use various ornaments and traditional constructive elements only as a starting point, which are then recomposed, by the use of techniques, rules and materials that are not peculiarly traditional, in order to produce a result that is more or less revealing regarding its inspiration.

To analyze things from the "inside", but also due to my love for the traditional rural values, I have decided to start a design experiment and to create a lighting fixture, inspired by a traditional romanian motif.. As a research method, it has become more and more accepted to use the formula 'research by design', meaning that the research is done at the same time with the actual design process.

The concept of the lamp is inspired from a decorative traditional pattern, sewed on fabric, founded in Trotuș Valley (Moldova - Bacău County). The pattern is matematically transformed in a complex structure, made from laser processed plexiglass plates, around a core in the shape of a cubeoctahedron.

The final poster will contain a comprehensive collection of images, depicting the entire manufacturing process: concept, development of the volume, traditional pattern transformation, the cardboard study model, the final laser cut object.

Keywords: *tradition, ornament, computational, design, cubeoctahedron, lamp, transformation*

Andrada EFTIME

PhD Student, "Ion Mincu" University of Architecture and Urbanism, Romania

eftimeandrada@yahoo.com

Andrada Eftime is a first year PhD student and assistant professor at "Ion MIncu" University of Architecture and Urbanism.
She recently graduated from "Ion MIncu" University of Architecture and Urbanism with a degree in Urban Planning. You can reach her at: eftimeandrada@yahoo.com

Site In Sight

Andrada EFTIME

Abstract

Nowadays we are living in an image-based society. These images are manipulated through different methods and filters and they can affect the way reality is perceived. One of the effects of the world we live in today is the fact that our ability to focus and to pay attention has decreased. In this new society, classical patterns of representation are no longer suitable, they are no longer working.

The aim of this paper is to outline the link between trends in landscape architecture and the current methods of visual representation used by landscape architects in order to keep up with our changing society and with the rapid development in technology.

Aiming to spend less money and time, current trends in landscaping are based on natural approaches such as low maintenance landscapes, sustainable design, extended use etc. So in order to keep up with the new trends, landscape representation had to evolve, to change. In this form, digital tools have become an extension of our body, of our thought.

Landscape architects materialize ideas on physical supports in order to discover new possibilities and to present their ideas to the users they envision experimenting the space created. In most of the cases the visual representation is used for the purpose of marketing and has to have the ability to capture the attention of the viewer immediately.

The current trends in visual representation are meant to create an almost instant engagement from the viewer, trigger emotional response and give the impression of understanding the whole project within seconds, an ability necessary in our image-based society. The idea is not to propose the final outcome but the sensations and emotions which are wanted to be experienced by the user of the space.

Current trends in landscape representation are meant to evoke mood and atmosphere rather than accurate views. They call for a form of representation which is visually brief, allowing an almost instant impact, and at the same time ambiguous.

Different means of graphic representation contribute in conveying the atmosphere and character of a place – how one experiences a place.

These trends are represented primarily by means of the eye-level perspective, image saturation, transparency, blurry images and tendency of landscape architecture imagery to be used for evoking a story rather than the construction of "real" projects.

The paper purpose is to show that current trends in landscape representation are not to assume that art itself depends on computer assisted design and neither that we should preserve classical patterns of representation but to evolve and benefit of this new technology. Visual representation is a step in the process of creation, it's a mean in which the proposal is better understood by the public. We are living in an era of visual communication and virtual images are an important part in communication with others. However, even the best graphic images are only a representation of the real world. So current trends in landscape representation are not based on object reproduction but on emotions, feelings and atmosphere.

Keywords: *Image-Based Society, Landscape, Visual Representation, Current Trends*

Oana DIACONESCU

Assist.Prof. Phd. Arch., "Ion Mincu" University of Architecture and Urbanism, Romania

onk_di@yahoo.com

Oana Diaconescu is an architect. She graduated The Faculty of Architecture at "Ion Mincu" Architecture and Urbanism University in July 2008, receiving a Bene Merenti Diploma for excellent results throughout university period, the Medal for excellent results within license project and representing the university at RIBA President Medals Student Award. She holds a Ph.D. in Architecture from the UAUIM, a Ph.D. in Museography from Università degli Studi di Genova Italy (2012) and a Master's in Architecure, Museography and Archeology from the Accademia Adrianea Rome, Italy (2010). In support of her studies, she received a number of grants and scholarships among which IAESTE in Cairo, Egypt (2006) and Novi Sad, Serbia (2007), Socrates-Erasmus in Genoa, Italia (2006-2007), Ph.D. POSDRU in Rome Italy (2009-2010), Accademia Adrianea for Itinerary Master Rome (2008-2010, studying in Italy, Greece and Spain). Postgraduate course: "Program of psycho-pedagogical studies certifying teaching profession - Ist and IInd level (2013-2014) organized by the UASVM, Bucharest. She participated in various competitions, projects, conferences, workshops, collaborating with professionals from Romania, Italy, Spain, Portugal and USA.

The Method Of The Stratigraphical Research

Oana DIACONESCU

Abstract

Lack of interdependence and self-sufficiency of the archaeological museum in relation to the metropolis marks the current design. Factors that condition the cultural-identity aspects are often omitted, generating the arbitrary use of space and its transformation into an unusable environment. Starting with the contemporary architecture, it may outline an analysis method of the parameters that compose the time and the framework of the representation, through a phenomenological and semiotic research based on the concept of "archaeology". This notion is supported by the theories of Michel Foucault, Silvia Beltramo and Sir
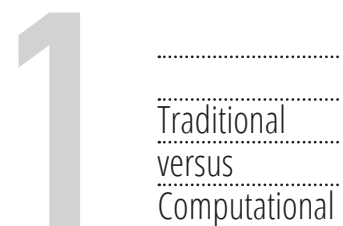
Mortimer Wheeler's, Edward C. Harris's, Space Syntax's practice. The crisis caused by lack of multidisciplinary on heritage studies has considerable repercussion both in scientific level method and in the practice of urban archaeology.

The study will argue the need to integrate the ruins, as vital elements, which centralizes the cultural development of any city. The musealisation remains one of the few processes, compatible to the historical architecture re-use, which aims to revitalize and value the area.

The study will propose a series of specific terms to different disciplines, aimed to understanding and correct interpretation of the theoretical content. To this purpose, it may examine: the introduction of scientific base, the evidence of the methodology and of the indicated disciplines and the report of various literature sources for a more complex acknowledgement. There can be considered only those archaeological sites which correspond to the need of expressing a corporate identity in relation to the type of memory generated by it. In this regard, the monument is being associated to that type of representation that can keep alive a widely recognized signified. The archaeological museum represents a particular category, because of its location on site and its connection to it, presenting both as an outdoor trail and independent entity, formally defined.

Archaeologists use nowadays, to investigate a site, several geophysical or satellite methods, subsequently stored in a computerized system. Most times such detection can prevent many problems caused by excavation. Space Syntax has developed a system that analyzes the relationship between urban space and its morphological features.

"The Stratigraphic research method" is based on studying urban archaeological sites already discovered where excavation site is either in progress or has ended and where archaeologists can provide sufficient data necessary for a future project. Depending on the type of excavation will reveal two situations: Sir Mortimer Wheeler's method and Edward Harris's method, which uses tetradimensional or Minkowski space. The topic proposes the takeover of Harris Matrix to diagram the information to provide a global research, on which will conceptually overlay Wheeler's grid, organizing the entire site with a map frame, which can also relate:

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the field data, the interpretative tables and the revealed planimetry. This network of notional squares will be applied to assess distances and locate any element within the pattern. The model is that of a virtual matrix, represented through diagrams and informational uploaded.

The study matrix will be scaled depending on physical size of the site and number of iterations proposed for each stratum. Analytical reports, tables that record the data will be the representation base of the material map. Layer research on each of the parameters proposed will provide a comparative system: optimal, good, satisfactory, poor and insufficient, which can determine the possible location of a future design intervention. Stratigraphic research can be applied to urban and territorial level, through a change of scale, in the transition from a one-dimensional to a three-dimensional representation. Each site will be imprinted by the historical events, human actions and information aggregation, during its entire evolution, following their temporal sequence.

The difficulty of presenting to the public, a place devoid of its original value, comes from the inability to class many of its attributes, the traces resulting from different analyzes. Trying to determine a quality scale to hierarchy the remains represents a contradictory process.

Comparative analyses are a major factor in the study, establishing the form specificities, the differences in relation to a model and their place in the genesis of the area.

Interventions aimed at interfering with heritage goods, mediating differences between restorative-conservation and museography principles.

The study of forms in elevation, applying the stratigraphic method, proposes the concept of architecture that does not remain closed forever as endless conserved monuments, but are involved in the general transformation of the city.

Keywords: *monument, stratigraphy, diagram, virtualization, archaeological museum, allestimento*
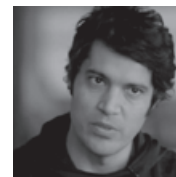
Hector MENDOZA

PhD, MArch, Arch. Profesor Lector, University of Catalunya, Barcelona School of Architecture, Spain

hmendozar@hotmail.com

Hector Mendoza joined the School of Architecture of Barcelona in 2008 and he is currently teaching and researching the Architectural Design, Representation and Visual Analysis Department.
He completed his Masters in Architecture and Urbanism at the Architectural Association School of Architecture in London in 2000 and obtained his Ph.D. in Architectural Design "cum laude" at the UPC in 2005 in Barcelona. He worked for Massimiliano Fuksas in Rome and Josep Lluis Mateo in Barcelona, prior to forming his own practice MX_SI architectural studio, in 2005 with partners Mara Partida and Boris Bezan.
MX_SI architectural studio is a recognized design firm, which has won several large open international design competitions, like Federico García Lorca Center in Granada, in which Rafael Moneo was the president of the jury in 2005, or the Serlachius Museum Gosta Extension in Finland with the largest number of entries in Finish competitions (579 entries) in 2011. MX_SI's work has also been recognized by the architecture chamber in Spain (CSCAE) with the Spanish international Architecture prize 2013, and recently nominated for the 2014 FINLANDIA architecture prize by the Finish architecture chamber (SAFA) and the European Union Mies Van der Rohe Prize. Mendoza's work at MXSI shows a significant sensibility to time and context. He is constantly seeking for a rich dialogue between contemporary architecture and existing environment, especially if the project site has a relevant cultural or historic value. He also plays a decisive role on defining visual strategies and tools for representing architecture ideas for competition entries.

Mara PARTIDA

PhD, MArch, Arch. Profesor Asociado, University of Catalunya, Barcelona School of Architecture, Spain

mara_partidam@hotmail.com

Mara Partida teaches and researches at the School of Architecture of Barcelona since 2008 at the Architectural Design Department. She completed her Masters in Architecture and Urbanism at the Architectural Association School of Architecture in London in 2001 and obtained her Ph.D. in Architectural Design "cum laude" at the

UPC in 2005. She worked for Legorreta + Legorreta in Mexico prior to forming his own practice MX_SI architectural studio, in 2005 with partners Hector Mendoza and Boris Bezan. MX_SI architectural studio is a recognized architecture firm, which has won several large open international design competitions, like Federico García Lorca Centre in Granada, in which Rafael Moneo was the president of the jury in 2005, or the Serlachius Museum Gosta Extension in Finland with the largest number of entries in Finish competitions (579 entries) in 2011. MX_SI's work has also been recognized by the architecture chamber in Spain (CSCAE) with the Spanish international Architecture prize 2013, and recently nominated for the 2014 FINLANDIA architecture prize by the Finish architecture chamber (SAFA) and the European Union Mies Van der Rohe Prize.

Mara's work at MXSI contributes a significant emotional response to context and experimental expression. She is constantly researching for a rich dialogue between contemporary structural language and existing environments. She also plays a decisive role on developing design strategies and tools for exploring material and spatial architecture ideas either for competition entries or private commissions.

Digital Versus Handcraft Fabrication. Architectural Elements With Complex Geometry In Different Contexts, Scandinavia And Latin America

Hector MENDOZA, Mara PARTIDA

Abstract

This work focuses on the material implementation of architectural systems which, by their complex geometry, were originally designed and modeled aided by digital tools. But once those systems have confronted the specific conditions of the local industries and socio-cultural contexts, they have varied their hypothesis of digital or handcraft fabrication.

This paper shows two cases from the professional experience gained through the projects realized by the architectural studio MXSI. These projects will highlight not only the spatial and geometric solution, but also the corresponding fabrication of doubly curved surfaces able to integrate, or unify, two architectural elements in a single gesture. We refer specifically to the system 'more than a wall' proposed

on the temporary intervention at the Eco Museum in Mexico City, and the system 'more than a railing' implemented on the project for the Gösta Bridge in Mänttä, Finland; both recent projects from the year 2014, and one of them already built.

Both case studies depart from comparable geometric systems with specific and differentiated fabrication solutions. Although those solutions are coherent with their global projects, both were demanded to move from their original hypothesis of digital or handcraft manufacturing.

In the case of the temporary intervention at the Eco Museum, we focus on the proposal of altering the vertical and angular condition of the walls that define the premises. Walls that, through the strategy of simultaneously smoothing the edges and the continuous variation of the section, achieve not only a reconfigured space in plan, but also generate an area of seat, platform or stage towards its central part; that is why this system is called 'more than a wall'.

The material implementation of the system was a key issue. It was desirable to achieve the smooth and continuous optical effect suggested by the digitally designed model. Another considered factor was the automatic manufacturing in order to reduce travel costs from Barcelona to Mexico City minimizing site supervision. Knowing that this project would be temporary, the durability of the material was not a primary parameter. The material fabrication hypothesis was the use of polyurethane foam blocks smoothly detailed with a digitally controlled cutter (5-7 axis cnc machines). Other options were considered while looking around the local industries and crafting possibilities, like the handcraft manufacturing process of the advertising stand of 'Melissa' in Brazil, reproducing a 10:1 scale shoe designed by Zaha Hadid.

About the Finnish project Gösta Bridge that links the park, where the Serlachius Museum is located, with the Taaventinsaari Island, we focus on the design and fabrication of one of its secondary elements: the handrail. This element serves as a mediator between museum visitors and infrastructure, presenting a soft materiality, easy to touch, and in harmony with other built and natural elements around the site; the consequent material option was to build it out of wood. The geometry of this contemporary balustrade is described with a doubly curved surface that, in
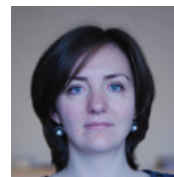
a similar manner as the project in Mexico, varies in section. This element smoothly reconfigures, from railing to bench, providing the place for visitors to stop and sit in order to enjoy the vista; that is why it is this system is called 'more than a railing'.

The digital model of this system was intended to be indicative and not definite. When modeling, it was already assumed that it would be manually crafted, taking advantage of the local Scandinavian tradition of working with wood. It was proposed to hand carve a continuous piece of solid Siberian larch wood. Due to weather affection on material durability, it was preferred to choose the use of laminated wood, or glulam, instead of solid pieces. Laminated timber allows great lengths and project solution pushed towards two 22m long pieces with a continuous section which, subsequently, should be modified and carved by hand.

Once confronted with contractors and real construction cost and time issues, the manual or artisan fabrication, proposed by MXSI, was suggested to change. Among other possibilities, the fabrication option offered by contractor was a numeric control process with a 5 axis cnc cutting machine.

Based on original material from MXSI studio, this paper will explain different manufacturing options of both systems. Through the explorations that were made and the work done in conjunction with local contractors and artisans in both contexts, it will be explained the flexibility that projects should have when implementing them, in a sense that the original fabrication hypothesis, either traditional or digital, could turn into the opposite without compromising their own essence and material qualities.

Keywords: *Fabrication. Latin America. Scandinavia. Digital design. Material implementation*

Silvia COSTIUC

Arch., "Ion Mincu" University of Architecture and Urbanism, Romania

silvia.costiuc@gmail.com

Silvia Costiuc graduated the Architecture Faculty,"Ion Mincu" University of Architecture and Urbanism in 2010 with a complex study extended on the entire Victoria Avenue, the most famous historical assembly in Bucharest. The study subjected to discussion the short therm versus the long therm economical efficiency regarding architectural interventions. She has experience in working with historical monuments since 2008. She participated at various conferences, workshops and summer schools in the heritage field, in Romania and abroad. Since 2009, she collaborates at the Master Plan of the Hurezi Monastic Assembly, listed as a UNESCO cultural heritage site. In 2013 she graduated advanced studies in Restoration of Historical Monuments, Assemblies and Sites, at the same university. Her graduation project is entitled "The Oltenian Culas. Possible UNESCO heritage landmarks", providing reasons for these monuments to be listed as a world heritage assembly.

Drawing As „Pride And Prejudice"

Silvia COSTIUC

Abstract

Since the modern school of architecture was established, the quality of handmade drawings became a selection tool within the guild. But the selection trough the traditional drawing has given way within the last years to architects using computer aided design.

Drawing abilities, creativity and originality in architectural design are changing when using computer representation. I tried to identify these changes trough a questionnaire I gave to the professors who graduated before the computer generated graphics was used in education. The questions address three important matters: their under-graduate drawing formation, the completion of their drawing studies during their graduate years and their opinion regarding the usage of

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computers in the education process.

For the generations who learned traditional drawing, this is a very emotional sub-ject. At the same time I noticed that, for them, the term „drawing" has more mean-ings than for the new generations. Graphic representations can be handmade or computer assisted, and manual drawing can be linear or nonlinear, observational or representational, an atmosphere sketch, which in turn can be technical or free-hand. But the "real drawing", as Professor Smigelschi suggested, could be the observational drawing. For the new generations the word "drawing" is losing its multiple meanings and it incorporates, perhaps, just the magical hand drawing, especially because most of them did not exercise their drawing abilities enough.

As the questionnaire was addressed to senior scholars, their answers generally tended to enhance and add structure to the whole discussion. And, at the same time, their didactic, educationalist, critic and self–critical abilities became visible. The memories from their university years, the formation through drawing and the analysis of their own teachers are seen through the lenses of their current exeri-ence as scholars.

From a creative process based on imagination and post-representation, the ar-chitectural conceptual phase is now shifting toward a creation habit based on dynamic virtual models. Among the changes that have occurred in the architec-tural profession due to computer aided design – one may mention the loss of the "mental exercise" implied by descriptive geometry. Others could be the loss of the ability to develop a general static perception of a project, or losses regarding the understanding of the textures, while projects are losing personality becoming more and more similar as language.

The traditional drawing stands and it is more personal and intimate compared to the impersonal and semiautomatic computer made drawing, that seems to lose the authors's personality. Also, when it comes to computer aided design, the final result will be significantly marked as an artistic product deeply influenced by the collective who created the program.

On the other hand, a traditional drawing, and especially one that is well executed, will probably get imprinted easier in its author's mind through the execution pro-cess, as well as in the memory of the ones that will get to see or analyze it through its uniqueness and lack of automatism.

At the same time, the turn of the educational process toward computer aided design implies a loss of a needed teaching manner in architecture that assumes a "warm" co-operation between the master and the apprentice, an initiation-like process, a mystagogic action that runs further through the explanations and technical aspects. The come back to the traditional drawing could set architecture back to its innocence and fertile creativity. The pro and cons opinions toward the supremacy of the classical drawing over the computer drawing are meant to cultivate a critical spirit and, at the same time, to re-humanize the architectural speech.

Keywords: *drawing, CAD, education process, architectural design*

Daniel Nicolae ARMENCIU

PhD, Assist.Prof., Arch., "Ion Mincu" University of Architecture and Urbanism, Romania

daniel_armenciu@yahoo.com

Daniel Nicolae Armenciu is a PhD architect, Assistant Professor at the Technical Sciences Department in "Ion Mincu" University of Architecture and Urbanism. He graduated the same institution in 2008. During the fifth year of study he obtained a Socrates Erasmus scholarship at Genoa University in Italy. The PhD studies (2008-2012) were sustained by European Founds with the EDUCATI Program. In 2009-2010 he obtained a study stage at University of Turin. He also holds a Master's in Architecture, Museography and Archaeology from the Accademia Adrianea Rome, Italy (2010).

Traditional Vs. Digital Sun Shading Design

Daniel Nicolae ARMENCIU

Abstract

Eco-compatible buildings design treats a number of factors that, corroborated, are leading to an optimal balance for the environment. The subject was widely spread for most of the pre-industrial examples, but it changed dramatically with the uncontrolled real estate development. The phenomenon produced a loss of cultural knowledge and a lack of interest for most of the initial design principles. Designing solar control systems has always been an important concern for architects. The two contexts of an architectural object: the cultural and the geo-climatic contribute significantly to the development of the topic. Different points of view on this issue vary from the rational to composition gestures that define a building's architectural expression.

The proposed paper aims to illustrate how the design tools influence the architectural expression of the sun shading systems and their level of complexity. The method will show some examples, based on various approaches that resulted from analysis, calculation, design and simulation of solar geometry methods. Having as a study base the vernacular and cult architecture through a semi-temporary approach it results the intention of defining development perspective through new methods.

Vernacular architecture is revealing itself as an example in which the language elements, progressively developed, are organically giving shape to the space. Time passing examines the strategies of sun control proving their validity.

On the other hand, the cult architecture is based on calculation and introduces the concept of style. The sun protection becomes decoration and spatial configuration element and it may sometimes disappear for technological, economy or design reasons. Differences and similarities between the two design methods are brought together by direct comparison. They are highlighted by meanings of: calculation instruments, design, and type of technology.

The research uses various ways of representing the sun's position on the sky at certain moments according to specific requirements that individualize the site. The virtual sky representations, known as models complements the classical methods of investigation and sun shading design systems, such as the classical drawing board representations, which refer to two different approaches of synchronic and diachronic nature. Today, they are outdated compared to computer-aided design. Once with the digital techniques development, the three-dimensional modeling and the research technology had experienced a particularly fast expansion. In this context, contemporary design features highly advanced simulation methods that enable a wide of solutions limited only by the power of creation.

The current tendencies of contemporary architectural design reflect a complex manifestation, materialized in forms, technologies and materials. Therefore, a highly suitable option is a virtual simulation that has the physical built object's characteristics. The evolution of the design as the Building Information Modeling (BIM) implementation supports this process, managing to encompass the entire operating unit.

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This way of operating allows a continuous modeling of various coefficients in relation to the functionality of the building as a whole. It takes into account the holistic management of all parameters that generates the building environmental control organization.

If the basic ways of designing proved their time validity, by keeping well-known principles and applications, contemporary design tendencies turn to be dependent on computerized modeling.

Keywords: *sun shading design, vernacular vs cult architecture, traditional design, virtual design, contemporary design*

Giovanni MATALONI

Prof., "Gabriele d'Annunzio" University, Chieti - Pescara, Italy

giovanni.mataloni@gmail.com

Engineer, professore aggregato ICAR06 Topography and Cartography at the Architecture Department of the "Gabriele d'Annunzio" University, Chieti - Pescara. Professor of Topography in the graduate program at Department of Geological Sciences and Technologies INGEO, director of Laboratory of Photogrammetry at Architecture Department.

He has coordinated and participated in several survey campaigns in architectural and archaeological sites in Italy (Column of the Temple of Hera Lacinia -Crotone, Ponte Emilio or Ponte rotto and theater Marcello-Rome, Palladian Villa Chiericati-Vancimuglio, castle Visconti- Somma Lombardo, Castle Mattei to Giove) and abroad (archaeological map of Kos in Greece, integration and control of Leptis Magna plan in Libya, Laser scanning and photogrammetric surveys in Romania: Potlogi Palace, Palace Cantacuzino in Floresti, Curtea Veche Bucharest, Churches of St. George and Fundeni over the mausoleum in Campulung, Kretzulescu church in Bucharest, Italian consulate and Trajan square in Braila). Following the earthquake of L'Aquila he has coordinated the activities of surveying, photogrammetry and laser scanning for the Technical Mission Structure in the municipalities of Montebello, Cugnoli, Ofena, Popoli, Bussi sul Tirino, Brittoli and Civitella Casanova.

He also coordinated the survey campaigns to obtain the Reconstruction Plans in the municipalities of Castelli and Capitignano. He was part of several research projects of national interest COFIN. The main fields of research are related to methods of detection techniques with traditional topography, digital photogrammetry and laser scanning, for the control and monitoring of deformations of structures and land. Applications of Geomatics in the field of Cultural Heritage, Laser Scanning applications in disaster management and monitoring in the environmental field, 3D modeling of the terrain (DTM) and surfaces for geological applications, forensic geomatic applications. He is author of several national and international publications.

Ştefan BÂLICI

PhD, Assoc. Prof., "Ion Mincu" University of Architecture and Urbanism, Romania

stefanbalici@yahoo.com

Conservation architect and faculty member of the heritage conservation department, within the UAUIM; founding member of the ARA - Architecture. Restoration. Archaeology Association, member of the Romanian National Committee of ICOMOS, and member of the Council of Europa Nostra.

Traditional Architecture Survey Vs Advanced 3D Scanning For The Protection Of Cultural Heritage: A Research And Teaching Programme

Giovanni MATALONI, Ştefan BÂLICI

Abstract

This paper gives an account on the aims, methods and progress of the joint research developed by the "Gabriele d'Annunzio" University of Chieti – Pescara and the "Ion Mincu" University of Architecture and Urbanism of Bucharest, on the confrontation of traditional and recent digital techniques of investigation and survey of historic built structures, in view of their better understanding, interpretation and, ultimately, conservation. Of the several individual objects used as case studies within the research programme, two buildings were selected to support the present account: the late 17th century Palace of Constantin Brâncoveanu at Potlogi (Dâmbovița County) and the early 20th century Cantacuzino Palace at Florești (Prahova County), both in Romania.

The research on investigation and survey methods and techniques is part of a wider and sustained joint action of our architecture schools, developed over the past six years through alternate field- and studio workshops, organized both in Romania and Italy, on several monuments with different biography and pathology, involving mixed groups of Romanian and Italian students and faculty members. The teaching and research process is going through a number of phases, adapting to the specificity of each individual case, from field survey – including information gathering on morphology, structure, condition and active processes, but also on physical and social context – through critical analysis, to conservation planning.

The two monuments chosen for the present contribution are very significant for one particular programme of the historic architecture of Wallachia, the noble residences, and are both well-known and featured in all important architecture histories. One of the palaces, the one in Potlogi, has undergone a major restoration led by an outstanding figure of Romanian architectural conservation, Ștefan Balș, while the other palace, in Florești, has had an unusual destiny, of perpetual ruination, which began before the building was even completed.

The aims of research started from the need of an accurate and detailed knowledge of the buildings, to include a thorough architectural and structural description, and an extended account on the transformations – brought by subsequent interventions or by ruination – and processes of deterioration. Further, the need to devise the most appropriate representation methods was considered. Within the overall study programme, the approach of the two monuments also aimed at the discussion of conservation scenarios and plans, but these exceed the purpose of the present account.

The investigation and survey methods applied included on-site direct analysis and discussion, and data gathering through traditional techniques (sketches, hand-measurements and drawings) and through advanced technologies (3d laser scanning, photogrammetry and unmanned aerial vehicle photography). The results of the new surveys are confronted with existing representations of the two buildings: pictures, artworks, photographs, and – firstly – measured drawings from previous documentation or restoration campaigns, featured in publications of kept in archives. By the joint use of traditional and advanced techniques and technologies, and by the confrontation with previous graphic documentation, the knowledge value of the exercise emerge: it provides exhaustive and highly accurate infor-

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mation on the physical state of the buildings and it allows a more extensive and better understanding of the structures, of their particular features and their history and transformations. Ultimately, such knowledge makes the premise for a good conservation project. The educational value of the exercise is no less important, as it allows the students to assess the different methods and techniques available, and to be able to plan accordingly in their future standing as practicing architects, possibly active in the field of research and conservation. A few of the participants to the workshops chose to continue this experience into their graduation projects.

The planning of actual work on the two monuments, as in other cases studied within the joint Italian-Romanian workshops, comprised several steps, with a first one for the definition of working methods and selection of techniques, followed by one or more sessions of field work, for the acquisition of data and later by a series of working sessions for data processing and representation. At same time, a confrontation of previous graphic representations and the new comprehensive and detailed 3d models took place. Now we are in the final phase, of complex morphological analysis on the 3d models and other graphical materials, which has already brought up significant information, likely to enhance the understanding of the history of the two monuments, and, hopefully, to contribute to their effective conservation.

Keywords: *architectural heritage, building survey, 3d laser scanning, measured drawings, virtual reconstruction, heritage conservation education*

Ana Elisabeta BOTEZ

Dr., "Ion Mincu" University of Architecture and Urbanism, Romania

anabotez@yahoo.copm

From Architecture To Icon To Architecture: Using Architectural Representations From Byzantine And Post-Byzantine Iconography For Understanding Traditional Orthodox Christian Architecture

Ana Elisabeta BOTEZ

Abstract

This paper will look at Byzantine and Post-Byzantine iconography in order to answer the question: "How to build new Orthodox Christian churches today?" This question is particularly difficult to answer in Romania, where the forty-five years of communist regime have meant an important hiatus in the building of new churches and in the education of architects who would have the cultural sensitivity and empathy for this delicate task. The clergymen and the faithful typically require their new church to be "traditional", usually without being

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able to fully explain it, so that many of the new churches are nondescript buildings that include all the features perceived as traditional by the promoters. The task of understanding, from a theoretical standpoint, what is traditional in Orthodox Christian church architecture is made difficult by the scarcity of historical literature on the subject, with very few works on the symbolism of church architecture and others praising the beauty of churches (the ekphrases); these rarely refer to the specific shape and size of architectural elements in a manner that could help an architect.

However, there is another great resource available for understanding how the Byzantines and their followers perceived church architecture: architectural representation in icons. Churches are often present in the background of iconographic compositions, and occasionally may even become their focus. Usually, background architectural representations are general, illustrating the idea of a church, while the others depict specific buildings during important events (such as the bringing of St. Mark's relics to St. Mark's church in Venice) or in dedicatory images (such as the dedication of Hagia Sophia in Constantinople by Emperor Justinian to Jesus Christ). A representation that is specific because the iconographer witnessed the depicted event or was at least familiar with the depicted church may become a general representation through successive imitations going further and further in space and time, made by iconographers who were not familiar with the depicted church. A particularity of Byzantine and Post-Byzantine iconography is the lack of concern for realistic perspective, which may make these images less than ideal as historical documents, but very appropriate for the purpose of the present study. Many such representations include features that could not be seen together in a realistic perspective image, but yet were depicted together because considered important by the iconographers.

The study will focus on two tasks. The first task will be to illustrate the three treatises that mention the symbolism of church architecture (written by St. Mark the Confessor, 7th century; St. Germanus, Patriarch of Constantinople, 8th century; St. Symeon, Archbishop of Thessalonica, 15th century) with iconographic representations from the appropriate time and place. The second task will be to follow through time and space some of those iconographic scenes which have started

as specific representations and have ended as general representations which illustrate the iconographers' idea of a church. A good candidate for this is the icon of the Protective Veil of the Theotokos, representing a vision beheld by St. Andrew the Fool for Christ at the church of the Theotokos in Blachernae, Constantinople, at the end of the 9th or beginning of the 10th century. The conclusions will identify and describe the architectural features that contribute to conveying the symbolism referenced in literature and to what degree they change or stay the same in iconographic representations. This will help architects understand what makes an Orthodox Christian church traditional and will help them design traditional churches instead of historicist pastiches and random collages of historical features.

Keywords: *Byzantine architecture, Post-Byzantine architecture, Orthodox Christian church architecture, Byzantine iconography, Post-Byzantine iconography, Orthodox Christian iconography*
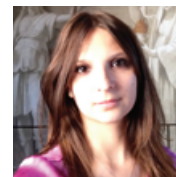
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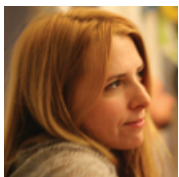
Sonia-Iulia RAETCHI

Professor assistant doctorand architect, "Ion Mincu" University of Architecture and Urbanism, Romania

raetchi_sonia@yahoo.com

2014 - present Post gradual course: "Program of psycho-pedagogical studies certifying teaching profession - organized by UTCB Bucharest

2014 - research - Mitigating the Heat Island Effect for improving urban comfort levels and energy consumtion in Bucharest http://www.uauim.ro/cercetare/redbhi/

Oct. 2013 - present Teacher assistant, Department of Introduction to Architectural Design (First Year)

2013 - present Doctorate student

Doctoral Thesis: Principles and challenges in designing near zero energy buildings – Romania

Doctoral School - SITT - University of Architecture and Urban Studies "Ion Mincu", Bucharest

2012 Diploma on academic postgraduate studies

Sustainable and Energy Performance in Buildings / Energetic Auditor in Buildings, University of Architecture and Urbanism "Ion Mincu", Bucharest

Sept 2010 - Sept 2011 Associate Member - architect at RoGBC - Romania Green Building Council, Bucharest, Romania (Nonprofit organization)

July 2010 Graduated The Faculty of Architecture - "Ion Mincu" Architecture and Urbanism University

2014 - participation – Liget Budapest international architectural competition: "Hungarian National Ethnography Museum" 2013-2014

2014 - First prize - National Stage of the International Architectural Student Competition: "A MILD Home in an Eco-Vilage"

2012 - participation – Lozen Village Passive House International Architectural Competition

Ana MOHONEA

Interior Architect PhD student Assistant Lecturer, UAUIM, "Ion Mincu" University of Architecture and Urbanism, Romania

ana.mohonea@yahoo.com

Architect - Graduated The Faculty of Interior Architecture - "Ion Mincu" Architecture and Urbanism University- July 2013

"Ion Mincu" National Scholarship given by RCI (Romanian Cultural Institute)

PhD student at IMUAU

Bene Merenti Diploma for excellent results throughout university period

"Ion Mincu" Architecture and Urbanism University Medal for excellent results within license project (9,55) - Dissertation grade: 10

Postgraduat course: "Program of psycho-pedagogical studies certifying teaching profession - Ist level (Nov 2013 - March 2014) and IInd level (March -July 2014) organized by The University of Bucharest

Member of ASAUIM (The Association of Architects and Urbanists "Ion Mincu"), Member of the University Committee (2009-2013), Member of the University of Interior Architecture's Council (2011-2013), Student representant in Saidro(The Society of Interior Architecture and Design from /in Romania), Member of ROG-BC-Romania Green Building Council(2009), Jury member in an architecture competition (2013), Secretary in a committee Diplomas 2014- University of Interior Architecture

The mean mark which was obtained on the admission exams on 2008 year was 9,25 (first place) and on every year she had a school stipend.

Participated in various competitions, projects, summer schools, biennials of the architecture, international workshops, obtaining prizes such as: First prize –on national level – the VII-th eddition of the Competition for the design of vanguard furniture - GUITARCHAIR(D) in 2009, 3rd Prize won in a teamwork -national level- "The Competition of ideas MILD HOME AND ECO GREEN VILLAGE", Caransebeș in 2014;

Participating at ROMANIA DESIGN WEEK-Section projects of Diploma in 2014;

Participated in numerous national and international exhibitions (of arts and of furniture design).

Presented lectures on national and international conferences.

Published articles in specialized reviews.

The Aesthetics Of Energy Efficient Buildings

Sonia-Iulia RAETCHI , Ana MOHONEA

Abstract

T. S. Eliot once said that genuine poetry can communicate before it is understood.

In this paper the authors intend to discuss contemporary issues regarding the notion of energy efficient buildings from a different stand point – that of aesthetics.

Firstly, it is wise to admit that we are discussing terms from very different spectrums of the built environment. Aesthetics is a qualitative field and energy efficiency is a quantitative field. These are two ways in which we can interpret a building's success, or two ways in which a design can fail. Alas, those terms must collide when we are discussing contemporary buildings.

The green building's movement proved that is much more than a fad, special concern about energy efficiency being integrated is many contemporary building designs. The challenge is to build beautiful and green energy-saving architecture.

One of the disputed aspects about energy efficient buildings is that they are ugly, lacking the common traits of formal beauty. The problem is an old one - that of placing objects in categories. Some energy efficient buildings tend to defy generalization, they are foreign when compared to other buildings, but familiar when compared to nature.

The aim of this paper is to discuss contemporary issues regarding the aesthetics of energy efficient buildings. Most energy efficient buildings have an aesthetics of their own, meaning that they have some kind of separate code, or criteria by which they can and should be judged, different from the mainstream. Like in vernacular architecture, their beauty derives from order, and from acknowledging the context - both in the natural and the anthropic form. Also, energy efficient buildings tend to derive their inspiration from nature, either by adapting or mimicking.

The latest discoveries of science and technology have had a large impact in the architectural field by building new bonds between man and the environment.

The connection that man shares with nature by adapting to the environment, without exhausting its resources, makes possible the link between architecture as an anthropogenic environment and nature as a model generator of architecture. Thus started projects that enhances the architectural potential of nature, whether it is about constructions made by living creatures, or models inspired from plants' structures.

Nature becomes an architect that shows us how to create in its own spirit, judging by its laws.

The relationship between the natural environment and the built one is dependent on man's view regarding nature in a specific historical timeframe.

Sustainable development is a concept that must be understood in close relation to the protection and preservation of the environment, the issues of global warming and pollution.

Ecological architecture must reflect the aesthetic adequacy, cultural coherency, respect for the urban or landscape context, respect for the past, concern for present and conservation for the future, all seen from a regional stand point.

Perhaps, by analyzing their specific kind of beauty, we can help broadening the impact of energy efficiency in buildings.

Keywords: *energy efficient buildings, aesthetics, nature, sustainability, architecture, design*
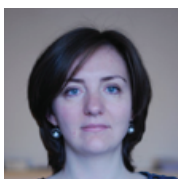
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Mihai OPREANU

Associate Professor, "Ion Mincu" University of Architecture and Urbanism, Romania

opreanu.m@gmail.com

Born in 1952, he graduated the Institute of Architecture and Urbanism, he obtained his diploma d'Etudes Approffondies in art history at the Ecole des Hautes Etudes en Sciences Sociales, Paris, and the Ph.D. at the "Ion Mincu" University of Architecture and Urbanism and he is the former general director of the National Office for Heritage Protection. He is holding several courses on ecology and restoration and he is a member of many professional organizations (member of the Romanian Committee for ICOMOS, of the Restauro Messerschmitt Romania foundation - member of the directing board and many other), winner of several national and international awards, he has educational, practice and publication experience in the field of restoration of over 30 years, being an expert certified by the Ministry of Culture in the restoration of cultural heritage.
The most important restoration projects are the arhchaeological site of Murfatlar-Basarabi, saxon citadel and church in Mosna, Plătărești, The University in Bucharest, the "Ion Mincu" University of Architecture and Urbanism, and the Hurezi Monastic Assembly.

Silvia COSTIUC

Arch., "Ion Mincu" University of Architecture and Urbanism, Romania

silvia.costiuc@gmail.com

Silvia Costiuc graduated the Architecture Faculty,"Ion Mincu" University of Architecture and Urbanism in 2010 with a complex study extended on the entire Victoria Avenue, the most famous historical assembly in Bucharest. The study subjected to discussion the short therm versus the long therm economical efficiency regarding architectural interventions. She has experience in working with historical monuments since 2008. She participated at various conferences, workshops and summer schools in the heritage field, in Romania and abroad. Since 2009, she collaborates at the Master Plan of the Hurezi Monastic Assembly, listed as a UNESCO cultural heritage site. In 2013 she graduated advanced studies in Restoration of Historical Monuments, Assemblies and Sites, at the same university. Her graduation project is entitled "The Oltenian Culas. Possible UNESCO heritage landmarks", providing reasons for these monuments to be listed as a world heritage assembly.

The Importance Of Handmade Drawing In Restoration

Mihai OPREANU, Silvia COSTIUC

Abstract

The architect needs to comprehend the geometrical shapes, volumes and historical materials when working with historical monuments. This is why at first the architects draw the geometric survey that will further be used as a base for the degradation and pathology survey, made on observation. The degradation survey presents the common evolution of shapes and constructive materials subjected to the effect of gravity and several external factors – climate, biological colonisation, other. On-site handmade survey based on observation is necessary to understand, first of all, the general shape of the building, to identify the former intervention areas, to comprehend the constructive techniques and the subtle moves inside the structures, to comprehend the location and and surfaces affected by degradations and especially to identify the sources that caused degradations.

The degradations are most of the times difficult to identify at first hand, especially for the beginners, as being the complex result of the geometrical shapes, materials used the result of different external factors. An architect that works in restoration should be very flexible and prepared to work on various types of historical monuments, and to annlyze them according to the same conjugated effects of shape, materials and external factors in time. The comprehension of these effects and their sources it's based on a dinamic observation process, while changing the visual angles and the distance towards the building. In time, the architects develop an important ability for working in heritage restoration, the observational skill.

The architect needs to understand as well the spatial relationship between the historical monument and its historical and present vicinity in order to propose enhancement projects. The monument could be part of a historical assembly, an urban or rural site or part of a natural setting. The best way to apprehend these relationships, geometrical as well, is, at a larger scale, trough similar kind of handmade observation drawing.

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Traditional
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Lately, in the restoration field, several new survey techniques appeared: 3D laser scanning, digital photogrammetry and others. All these can reproduce the contact layer of the historical monument, with minimum human involvement the general geometry or even detailed geometry trough point clouds. But in spite of the geo-metrical accuracy, these kind of surveys using these new instruments, are creating a gap between the architects and the essence of the work with historical monu-ments, which is the comprehension of physical evolution of buildings during sig-nificant amounts of time. In a bigger picture, using these kind of instruments will led to a more and more superficial analysis and it will have considerable adverse effects on the conservation, restoration, prevention and enhancement of historical monuments.

The importance of the handmade drawing in restoration and the weaknesses of the computer technologies in architecture will be further exemplified trough re-cent experience gained trough the French-Romanian workshops between the „Ion Mincu" University of Architecture and Urbanism in Bucharest and The Centre for Postgraduate Studies in History and Conservation of Historical Monuments (CESH-CMA), Chaillot, Paris, working with students at the summer workshops on rural sites with vernacular architecture in the locality Bucium, Alba county, organized by the RPER NGO and during the surveys made in the Hurezi Monastic assembly, UN-ESCO world heritage site. Generally, the students tend to spend very litlle amount of time working on site where they are making superficial drawings and photo-graphs, in order to save time to accomplish the computer model. Generally the students have not exercised enough their skills of observation trough handmade drawing during the graduate years and they have difficulties in understanding that the on site drawings that they produce will become, once finished, important heritage documents as well. Unteaching these "automatic" habits is a major task in heritage and this presentation is meant to alleviate the unwanted effects of the extra use of the computer aided design in education.

Keywords: *drawing, CAD, education process, heritage*

Mihai OPREANU

Associate Professor, "Ion Mincu" University of Architecture and Urbanism, Romania

opreanu.m@gmail.com

Byzantine-Style Domes In Wallachia: Analysis And Case Study

Mihai OPREANU

Abstract

The drummed dome sustained by pendants sheltering the image of the Pan-thocrator on the top is the symbol of the sacred space in the province of Wallachia. Unfortunately, out of all the traditional churches of Byzantine influence from Wallachia, many have lost their towers because of the great earth-quakes of the first part of the 19th century (1802 and 1839). Because of this loss, as well as for other degradation causes, they have constantly undergone resto-rations, modifications, completions and, in many cases, wide configuration and

expression alterations.

The reason for a restoration intervention should not be to adjust the image, to beautify, or to achieve similar constructive actions but the necessity of physically conserve a historical monument in the integrity of its substance.

The image of the votive painting of the church, a possible source of documentation, is not a fair representation; anyway it is not an orthogonal projection. The painter had not sought to send a document, but a state of mind, an expression; he had no systematic knowledge of geometric representation nor wished to refer to geometry.

An important tool possible to be used to understand and judge more completely and more accurately the real image in space, before its concrete existence, is by virtual computer aided modelling.

There is still much to do to in order to achieve a coherent virtual museum of historical architecture in Romania; but there are increasingly more items dedicated to the topic.

The subject of the study case is the St. Mercurie church of the Plătărești monastery, 30 km away from Bucharest.

The dome proposed in the Plătărești project had already been approved before we began the work in site, we raised the scaffolding on the church, and we got the possibility of making systematic surveys. The discussions in the National Historic Monuments Commission were complicated. The regretted professor Grigore Io-nescu, then Chairman of the Commission, said: "we have to return to the original configuration, we cannot have the 17th and the 19th century at the same time"; further he said (I can still hear him now in my mind): "allow the architect to do his job!".

The construction started and then I was able to climb the scaffolding, to carefully remove the "parasite" masonry (added in the 19th century) and find the original tower's column foundations. We found the first brick horizontal layer of each column of the original drum, with the precise configuration of the horizontal section.

It was confirmed that the tower had 12 sides; we saw clearly that the vertical sides of the columns, namely those in successive withdrawals, were radial and not parallel.

I already assumed that I could find such a configuration, as I had previously seen in a long article of the architect Horia Teodoru in BCMI (old series, no. 113-114, July-October 1942); here, a study on the towers of the old church Flămânda of Campulung Muscel was presented, with a perspective restitution. The church no longer existed, it had already been demolished, and Horia Teodoru had undergone the study based on a remaining photograph.

The Flămânda church dome on drum, which is the subject of Horia Teodoru´s study, was of circular-angled type; the withdrawn faces of the vertical pillars which are not in parallel plans, as in the polygonal pattern, but in radial plans, converging to the central axis of the tower. The archways that are born on these pillars are not in the shape of cylindrical arcs, but truncated cone arcs. These arches are developed on a series of virtual conical surfaces, actually some horizontal cones halves, all converging to the axis of the tower, at the springing of the dome. The archways, the "brows" of the tower, look up, open like spatial fans, toward the sky, unlike the cylindrical archways.

The itinerary through the geometry of Byzantine Wallachian domes becomes more fascinating while being connected to an unmediated, direct experience of eyes that "do

Keywords: *domes, byzantine, Wallachia, churches*

Roxana BUTNARU

PhD, Ing.Arch., Karlsruhe Institute of Technology, Germany

roxana.butnaru89@gmail.com

11 February 2015 - Graduated from the Architecture Faculty, Karlsruhe Institute of Technology with the title Diplom Ingineur in architecture;

2012-2015 Student of the Faculty of Architecture, Karlsruhe Institute of Technology;

2010-2011 Erasmus Student in the Faculty of Architecture, Karlsruhe Institute of Technology;

2008-2010 Student of the "Ion Mincu" Architecure and urban planning University in Bucharest;

July 2008 Graduated high-school (Bakalaureat) with the grade 9,96 (maximum grade in Romania is 10=100%, whereas 9,96=99,6%);

2000-2008 Gymnasium and high-school at "Colegiul National Petru Rares" Suceava, Romania;

1996-2000 Ground school "Scoala generala nr.3" Suceava, Romania

Working experience

1 October 2011- 31 March 2012 Internship at Daciana Daraban Architecture Bureau, Bucharest, Romania

Participation on Projects/ Workshop

July 2014- "Freedom" Photography Workshop in Viana do Castelo;

November 2012- January 2013 AIV Berlin Schinkel Contest, "Transformation TXL", Landscape architecture category

28 June-8 July Workshop Experimenta Urbana at the University of Kassel;

Mai 2012 Participation at the Project group "Strategy, Conception and Concept Presentations 2012" with the thematic "Cultural Center Aalen"

10 Mai 2012-16 Mai 2012 Workshop "Textile Roofs" Berlin organized by Berlin Institute of Technology;

Project For Touristical Valorisation And Development Of The Castle Plateau In Suceava, Through New Concept For Visitors And The Construction Of A New Information Center

Roxana BUTNARU

Abstract

As stated in the title the project includes many aspects concerning a district in the north-eastern part of Romania. The intention is to begin from a regional level, to go into city level, than into local setting to end the project with an architectural proposal. In each case the existing situation is analyzed, the main problems are discussed and a punctual or general solution is proposed.

1. PROJECT LOCATION. REGIONAL SITUATION

1. 1 Particularities about the region. Accessibility. The site of the project lies on the north eastern side of Romania in Suceava district. The main part of the district, which embodies Suceava city is included in the historical province Bucovina.

1.2 Strategy for the painted monasteries. The painted monasteries are since 1993 part of the UNESCO world heritage and they count as unique in the world. In order to capitalize the importance of the monasteries and to solve the problem of the deficiency of connections to the public transportation system, a new touristic bus-shuttle is introduced.

2. SITE ANALYSIS

2.1 Existing situation. The studied area covers the center of the city, a big part of Sipote Park, the Pacea cemetery, the traditional village museum, the statue of Stephen the great and the castle.

2.2 Problems. Exactly from the beginning strikes the fact that the orientation signs are completely missing. The pedestrian alleys are not suited for a frequent use.

They have a small number of benches which are not in a proper state. The walking paths are damaged, forcing the visitors to face the risk of falling down or hitting a sharp stone and injury themselves. In some areas the pedestrian ways and the cycling lines are missing complete.

3. GENERAL URBANISTIC STRATEGY

3.1 Interventions concerning the entire area. The only measure taken in relation to the road network concerns the removal of the entrance street to the king Stephen statue. The next step in the development strategy is the extension of the pedestrian way system, in the places where the necessity asks to (mainly where the alleys end spontaneous). In order to be useful to project purposes, a new parking lot is designed near the castle plateau.

3.2 The establishment of a promenade near Sipote stream. The design of the promenade is thought to be as simple as possible in order not to interfere a lot with the natural equilibrium of the forest.

3.3 Other general measures. In the places where the possibility exists the forest surface is enlarged. The both parts of the village museum are reunited.

4. NEW ORGANIZATION FOR THE CASTLE PLATEAU

4.1 Existing situation on the castle plateau. What strikes from the beginning is the fact that the organization lacks almost completely. At first glance it is easy to observe a number of buildings that have nothing to do with each other. The castle and the museum entrance are not clearly visible. They are also not connected to each other.

4.2 The organisation of the castle. The castle has a concentric organization with three interior courts.

4.3 Development strategy. The integration of the castle plateau inside the castle area. The first stage of the development concerns the demolition of all the existing buildings. After the first series of circular extension a new design of the plateau emerges. The purpose of the project is the integration of the castle plateau in the castle area. For this reason an wall is built which enhances the medieval atmosphere given by the fortress.

4.4 Results. As noticed before the concentric evolution is the main principle which dominates the development strategy. The centers of the new emerged landscape composition are two belvedere points one in the middle of the area and one near the castle entrance. The new created parking lot keeps the concentric principle which controls the entire plateau. The bus stop is included into the western part of the parking place

5. TOURISTIC INFORMATION CENTER

5.1 Disposal on the site. The new information center building is located at the southern access into in the plateau from the forest. What is particular about it is the fact that the pedestrian way passes through the building attracting the tourists to go in and visit the permanent exhibition, to attend meetings, conferences or film projections or only to buy a ticket.

5.2 Floor description

As mentioned above, the ground floor level serves for touristic and administration facilities. At this level the building is divided in two parts by the passing through alley: the left part is dedicated to the public and the right part contains the employees burros. The both parts have their own circulations and their own toilets. The first floor keeps the basic organization of the ground floor, with a group of circulations dedicated to the employees and one for the visitors. The main function of this level is the cafeteria with the open air terrace. This terrace is also accessible from outside.

5.3 Particularities about the building

6. CONCLUSIONS

Besides the practical requirements of the project one other purpose was to attract the foreigners attention to the potentials and the uniqueness of the area. At the same time the project represents one good example of combining the modern way of thinking the space and the introduction of new ideas in a place which was shaped around 500 years ago.

Keywords: *Medieval Architecture, new architecture, Suceava, Romania, UNESCO monasteries, Romanian cultural heritage*

Innovation and Experiment

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Motto: ipsa scientia potestas est / experientia docet

This section aims to find out and debate how innovation and experiment are shaping the architectural, planning and preservation field distinctively through the design process. This process is about exploring, protecting, rehearsing and delivering ideas in a buildable form. The 21st century demonstrated that architecture is a process-oriented realm and the confines of the architectural object type realm are blurred. The search through design here (in this specific section) takes in account how the built environment is transformed by various innovations both in technology and in the way people use and respond to this. The experiment is perceived as a factor of progress and stands for a wide range of declinations: we aim to talk about experiment in creative process, in design programs, and experiment in architectural practice and in education. In architectural design and urban planning realms Knowledge empowers / experience's teaches.

Innovation in Architectural Design   Experiment as design base
Innovation in Construction   Experiment as learning tool
Sustainable Design Innovation   Architectural experiment

Assoc.Prof. Françoise Pamfil, Arch PhD, Chair of Section 2

Maria BOŞTENARU DAN

Dr. Dipl.-Ing., "Ion Mincu" University of Architecture and Urbanism, Romania

maria.bostenaru@iaim.ro

Dr. Dipl.-Ing. Maria Bostenaru-Dan graduated in architecture, focus on urban planning, at the University of Karlsruhe, Germany. She spent more than a decade abroad, in Karlsruhe and in Pavia, Italy. Funding was provided by either the German goverment or the European Commission (TEMPUS, Marie Curie). Since her return 7 years ago she works at the "Ion Mincu" University of Architecture and Urbanism. Apart of this she cooperates in international networks, such as 3 COST actions, an ESF one, and two ERASMUS networks. She spent short research stays in Portugal, Canada and Hungary. Recently she embarked a postdoctoral project from European funds at the University of Bucharest, and was awarded a Romanian government one for a stay in Rome, Italy.

Green Walls And Textiles

Maria BOŞTENARU DAN

Abstract

In this paper we deal with textile as cloth for architecture and landscape architecture. Dealing with this we span from the interpretation in philosophy as applied to architecture, over architecture theory, to more technical aspects as the connection between biology and architecture, as nature transposed to decoration of architectural surfaces, in drawing and 100 years later in itself. The role of green walls, natural or artificial, cannot be seen separated of that of ornament in architecture. For this reason we analysed the architecture theory approaches to ornament, particularly to wall ornament, although the metaphor of carpet for example has been employed also for roofs, as the greening also does. The connection between textile and architecture is usually investigated from the point of view of textile as a material of (tensile) structure. We will look at the other side: outgoing from the architecture theory which differentiates between the load-bearing

structure and the ornament carried on this, the textile is a support of the second. Either as metaphor (the non load-bearing wall becomes for Semper "Gewand") or literally, when plants are printed or grow on the textile wall. We can find at least inclined surfaces also in the landscape, and will deal with the employment of textile for growing plants on such derelict sites as well. Both analysis are basis for how it can be dealt with in design projects. The application of this analysis should be better intervention on sites struck by natural disasters and left derelict. For our own design project, we tested the applicability of such approaches in case of emergency housing. Research cannot be a goal in itself, its applicability is important.

Keywords: *landscape architecture, felt, architecture theory, vegetation*

Daniela TĂNASE

Assistant Teacher , Arch., "Ion Mincu" University of Architecture and Urbanism, Romania

dana.tanase@idz.ro

Arch. Daniela TĂNASE graduated the Architecture Faculty at the University of Architecture and Urbanism "Ion Mincu" in 2010, and obtained The Grand Prize of the Architecture Annual (2011), Bucharest - The Diploma Project Section. She currently is architect at IDZ arhitectura S.R.L. and also Assistant Teacher at the University of Architecture and Urbanism, Design Studio Class.
Since 2010, Daniela TANASE is PhD. Candidate at the University of Architecture and Urbanism "Ion Mincu", with the thesis research subject: "The Influence of Digital Fabrication Technology in Contemporary Architecture". Within the doctoral studies she is following the relationship between digital manufacturing tools and the architectural concept development.

Ionuţ ANTON

Assoc.Prof., Arch., PhD.,, "Ion Mincu" University of Architecture and Urbanism, Romania

ionut.anton@idz.ro

Ionuţ Anton is currently Assistant Professor at the "Ion Mincu" University of Architecture and Urbanism, where he teaches Architectural Design. He graduated from UAUIM in 2005 with distinction and also holds a PhD in "Algorithms and Architecture", with the focus on the use of computational design in architecture.
His research focus is in exploring how the digital media can change the way architecture is designed and made. He has taught several international workshops on parametric design and digital fabrication.
Ionuţ Anton is also owner and architect at IDZ Arhitectura a small architectural practice based in Bucharest developing parametric and algorithmic architecture

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Research Through Digital Making

Daniela TĂNASE, Ionuț ANTON

Abstract

Addressing the digital fabrication domain in terms of implications for design practice transformation is still in its early state. These digital methods of design and fabrication are relatively new to the architecture practice, but are beginning to be explored. Most of these technologies are currently starting to be addressed, applied and developed, in the academic research (Kolarevic, 2005b, 29).

Often the use of digital technologies has been interpreted as an excuse for obtaining forms without substance (Picon, 2010, 70). In these cases, the capacity of the fabrication technologies to achieve increasingly more complex geometries was the most valued. These approaches have been criticized as superficial, through the fact that emphasizes the value of the technology itself.

Another approach was the one in which fabrication and digital design were seen as part of the theme of sustainability. The discourse on digital fabrication mainly focused on technical and economic aspects, while its implications beyond the field of engineering and industry were ignored. Thus they were interpreted as methods for achieving efficiency as a means to control the use of raw material supply.

However, a more profound approach on digital architecture practice, only recently started to emerge. The research in the digital domain transcends the new expression of architecture and its dependence on digital tools, and goes deeper into substance, in developing new ways in which we think and make architecture and design using digital tools. Current interest focuses on how the digital environment transforms the way we think about architecture. It also shows the design domain reorientation towards materializing architectural artifacts and in this context digital fabrication becomes part of the project.

This paper emphasizes the new focus of the architectural practice on materializing,

arguing for the need to involve digital fabrication methods from the earliest stages of the design process (Kolarevic, 2005a, 205). Design and fabrication digital tools have evolved from simple executors to generating factors in the design process. Thus one can acknowledge the digital tools ability to incorporate information that can influence the concept.

The digital technology proofs its utility, not only by designing and producing unique and custom objects, but, more important by offering possibilities that creatively can contribute to the design (Glynn and Sheil, 2011, 20, 156). Thus the advantage that these digital tools provide is not the high-tech factor, but the fact that are highly customizable for a variety of processes. The challenge for today's architects is they have yet to appropriate these foreign objects, migrated from different technologies, designed for other processes, and make them their own.

In the final paper, the authors will present their own applications, which investigate the creative potential of several types of digital fabrication tools. The abilities of digital tools were tested through three methods: workshops with a given topic, but without a predefined result, design objects as a personal interpretation and robotic fabrication as an exploratory research for future applications.

Workshops

The workshops that the authors organized were designed to provide the professionals from the creative media with the opportunity to test the ability of digital tools in design and manufacturing. Participants interact with aspects of materialization and they understand that the digital environment does not provide automated tools that make it possible to achieve any form effectively. The whole process, from design to manufacture, has to be planned and abstracted by the designer.

Both the developing of the workshop topic and the creative process during the workshop became a research method. The workshop as a working method proves itself to be a suitable means of knowledge transfer between primary researches, which we as tutors are achieving, to the community of architecture practice. Thus we develop and test the working methods and make them available to the community that can further apply and adapt them to their own practice. The aim is to

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show that these new work tools are affordable, customizable and that can foster the imagination.

Object design

The making of objects with digital means, by the authors, intended to link computational design, digital fabrication methods and material. Digital tools were involved in the design practice in order to see how they can influence the creation and fabrication processes. The research had two parts, the first related to the working method and the second related to the analysis of the final object. The paper investigates the abstraction of design and fabrication process through code. It was also important to analyze the material outcome in order to observe what the digital influences on the final object were. Although the conceived objects are small, the working process and methods of fabrication can be retrieved and used for an architectural scale.

Robotic fabrication

The paper will also focus on the research of some very versatile fabrication tools, the industrial robots. It follows the development of applications that focus on the increased degree of flexibility of these digital fabrication tools.

The research is exploratory in the sense that seeks new fabrication processes for using industrial robots. Robotic tools were just recently involved in the creative domain, thus references to robotic applications are relatively few, but in constant growing (Brell-Cokcan and Braumann, 2012, 8-10). The interest for architecture in these tools is due to the fact that they are used for a large variety of applications. The applications developed using industrial robots are experiments that explore a field with numerous possibilities of use in the architecture practice. Their characteristic as versatile tools enables the designer's creative skills to involve them in architecture.

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Keywords: *digital fabrication, creative digital tools, research by design, robotic fabrication,*
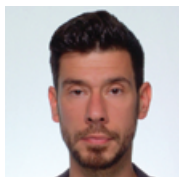
Djordje STOJANOVIC

PhD, Assitant Professor, University of Belgrade, Faculty of Architecture, Serbia

ds@4ofseven.com

Dr. Djordje Stojanovic is an Assistant Professor at the Faculty of Architecture - University of Belgrade and the founder of 4of7 Architecture*, the framework for integration between research, education and practice.

His research interests include the notion of adaptability across two distinct levels, one being related to the built environment and the other to the design workflows. Central to his research is the construction of large scale, prototypical models which incorporate the use of computational logic and experimentation with the properties of building materials. He published a number of peer reviewed papers and presented in conferences in Europe and Asia. His doctoral dissertation is titled "Adaptive Principles in Architectural Design: Analogue, Performative and Prototypical Models".

Dr. Djordje Stojanovic is teaching Design Studio Courses and Theory Seminars at Master Level with emphasis on the research based approach to learning. In addition to the appointment at the University of Belgrade, he has also thought at the Architectural Association Visiting School in Tehran and Paris. His educational agenda is focused on the investigation of novel and versatile spatial organizations arising from the contemporary social, cultural, economic and environmental conditions. While the idea of adaptability provides for multiple conceptual bases in his educational work, the aim of both practical and theoretical courses is to help students to critically evaluate design strategies and develop a set of design skills needed for architectural practice. Students are thought to design, construct and use buildings in the changing circumstances of the present day context.

4of7 Architecture is the practice best known for the completed project for the change of use of the existing landmark building at Belgrade's riverfront and several competition winning entries including the proposal for the Slavija Square in Belgrade. Prior to establishing 4of7 in 2007, Djordje Stojanovic gained professional experience working in four high-profile practices in London as an ARB RIBA III certified architect. From 2005 to 2007 he was a Design Director at AKT Structural Engineering Consultancy where he managed the team of architects and programmers working in collaboration with: Thomas Heatherwick Studio, Atelier Nouvel Foster and Foreign Office Architects. From 2003 to 2005 he was employed as a senior architect at ARUP within Advanced Geometry Unit led by Cecil Balmond to work on the redevelopment proposal for Battersea in London. In 2002 he worked with Ron Arad Associates on the interior of Hotel Puerto America in Madrid and on the project for Thierry Mugler store in Paris. His professional career started at Zaha Hadid Architects in the year 2000 where he worked until 2002 on the number of projects including the initial design stages for the BMW

Central Building in Leipzig. He holds Master Degrees from Architectural Association DRL and London School of Economics. He graduated from University of Belgrade earning diploma engineer in architecture degree. Key interests: adaptive environments, research by design methodology, prototypical models
*More information about the practice and design research projects is available online at www.4ofseven.com while www.blog.4ofseven.com provides an archive of more than three hundred posts documenting teaching and research outcomes since 2007.

The Curious Case Of Cannibalism In Architecture: A Model For Suburban Redevelopment

Djordje STOJANOVIC

Abstract

This paper will discuss prospects and limitations of the architectural design research methodology transposed from a specific product development and marketing strategy, first developed in the sixties under the name of "Cannibalism". What originally stands for a gruesome occurrence in nature, whereby human or animal is eating one's own species, in the realm of product development indicates an intriguing development strategy according to which an individual or a company appears to be competing against itself but actually is increasing its share of the market. This is usually done with the introduction of a new product which will harm all competitors but more so all others than the one who has launched it. In short, the strategy of cannibalism in marketing implies reduction of sales volume of one product as a result of the introduction of a new product by the same producer.

This paper will explore potency of the concept of cannibalism within the realm of architecture and urban design as a strategy of spatial adaptability. The link between architectural research and practice is established through testing of such transposition in the real-life situation present in suburban environments. The concept of cannibalism is employed as a projective model for the gradual conversion of spatial conditions found at remote but well connected lots in the suburbs of

many European cities. The chosen testing grounds are outlet parks and commercial zones most commonly situated alongside busy traffic routes. Practical dimension of the research will focus on the following questions: How to convert purely commercial and car dominated zones into the mixed-use environments by their very own creators? And what design methodology can foster such change?

This study will probe if proposed design methodology could mobilise large chain store owners, such as Ikea, OBI, Metro, Auchan, Decatlon, to become partners in the enhancement of the built environment. It will investigate into how design strategy may become a framework for active involvement of large corporations who may recognise the opportunity to benefit from better use of their own assets and would team up with developers or housing groups. The second part of the paper will document the case study development and will provide an account of the projective design model structured around the following set of actions: To maintain economically viable warehouses on the ground level as they are; to convert their roofs into the green areas; to build a housing blocks of 5-6 stories on top of the commercial warehouses; to employ the built volume as a noise and pollution shield to protect the newly created micro-environment; and finally to create a range of housing units each dually oriented to benefit from the panoramic view of the vast landscapes of suburbia.

Keywords: *Cannibalism; urban design; change of use; adaptive development strategy;*

Anda-Ioana SFINTEŞ

PhD, p.o., "Ion Mincu" University of Architecture and Urbanism, Romania

anda.sfintes@gmail.com

Anda-Ioana Sfinteş graduated the Faculty of Architecture at The University of Architecture and Urbanism „Ion Mincu" (UAUIM) Bucharest in 2010. She has a master degree in Anthropology awarded by The National School of Administration and Political Science (SNSPA) Bucharest, obtained with a thesis concerning the link between architecture, discourse and interpretation in the Romanian Peasant Museum. Since 2014 she has a PhD in architecture, awarded by UAUIM. The subject of the PhD was that of boundary-spaces, regarded from both an architectural and anthropological perspective. She is working as a teaching assistant at UAUIM since 2011.

The Blurring Of Institutional Boundaries In The Intermediate Spaces Of Contemporary Architecture

Anda-Ioana SFINTEŞ

Abstract

The contemporary society faces itself with a growing tendency towards emphasizing the importance of intermediary spaces. It has been a while now since the intermediate space stopped being a void, a space with no specific function but that of a buffer – deemed necessary by physical, functional, psychological, social reasons. The intermediate space was both independent and closely linked to the adjacent spaces that led to its emergence as a space of negotiation, redefinition and constant retrospection, of impartiality and shorting of rules. Anyway, the new ideas of equality, acceptance, multiculturalism, collective identities, the new, alternative forms of art (which took the biggest step towards blurring boundaries – between high/low culture, public/private, formal/informal) etc. rather emphasize the hybrid aspects of an in-between positioning.

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Hybridity is a highly valued contemporary concept. Katharyne Mitchell [1] notes, as a fundamental characteristic of hybridity, its dynamism that transforms it rather into a process than into a thing or place. Thus, the importance of a hybrid place resides in its ambivalence, in its capacity to juxtapose opposed realities, values, features, allowing a richness of readings, meanings but also of creative interpretations and uses.

The high number of terms mentioned in The Metapolis dictionary of advanced architecture: city, technology and society in the information age [2] – like „ambiguity", „hybridity" and „hybridization", „blurring", „camouflage", „de-materialization", „dispersed", „in-between" and „intermediary" – define the extent, complexity and importance of a mediating Thirdspace.

The idea of a Thirdspace belongs to Edward W. Soja who thought of the architectural transitional area in a broader sense: as a flexible, creative space, a place where transformative processes objectify themselves, negating, however, a bipolar logic and allowing the coexistence of opposed realities. For him, the Thirdspace is a place of coexistence for:

subjectivity and objectivity, the abstract and the concrete, the real and the imagined, the knowable and the unimaginable, the repetitive and the differential, structure and agency, mind and body, consciousness and the unconscious, the disciplined and the transdisciplinary, everyday life and unending history. [3, pp. 56–7]

His theory (continuing a train of thought started by van Gennep [4] with his rites of passage and continued by Victor Turner [5] when writing about liminality and liminoid; based upon the idea of a continuous social space as theorized by Lefebvre [6]) validates our discussion about the blurring of institutional boundaries in the intermediate spaces of contemporary architecture.

These spaces do not necessarily have firm contours, but rather diffuse boundaries which contribute to the conceptualization of the physical and social space as part of a de-materialized culture, visible in the de-materialization (identified by Sreten Ugricic [7, pp. 111–2]) of art, of communication forms, of conflict or power relations etc.

This dematerialization and blurring of boundaries is sustained not only – or necessarily – by physical characteristics of the built space, but also – or rather – by institutional extents and contemporary social, psychological, economic, political or cultural needs.

The new intermediate spaces mediate, as always, the relationship between an inside and an outside, but they also assume new creative uses, becoming places of performance, where, for example, the everyday realities and practices mingle with artistic high culture manifestations. Here, formal and informal activities collide, alluring new categories of public to join (at least passively). A major role in blurring boundaries is played also by the intersection, in the same place, of leisure, commerce and more highly cultural activities – indeed as a result of a society driven towards conspicuous consumption but which shouldn't, nevertheless, lead to the neglect of its positive aspects (like encouraging participation, interaction and emphasizing creativity, social integration etc.).

Physical aspects, institutional aims and social work shall all be followed – in this regard – in a couple of case studies, various in their function, scale and status: from small architectural objects designed to fill an intermediate space (like the winning projects of the Young Architects Program developed by MoMA and MoMA PS1 in New York as well as by their newly co-opted partners in Rome, Istanbul, Santiago and Seoul), to new, not built yet, projects like Chu Hai College Campus in Hong Kong, designed by OMA having in mind the high social importance of hybridity.

Keywords: intermediary space, hybridity, blurring, boundaries.

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Keywords: *intermediary space, hybridity, blurring, boundaries*

Mihaela ZAMFIR (GRIGORESCU)

PhD, Assistant Professor , "Ion Mincu" University of Architecture and Urbanism, Romania

mihaela_arhitect@yahoo.com

Graduate in 2003 of Faculty of Architecture, University of Architecture and Urbanism "Ion Mincu", and in 2005 of Master "The rehabilitation of built heritage", Mihaela ZAMFIR (Grigorescu) (born in 1978) has finished in 2014 her PhD with the thesis "Towards a community architecture- interdisciplinary highlights for the contemporary urban society".
She is Assistant Professor at Faculty of Architecture, University of Architecture and Urbanism "Ion Mincu", Bucharest. She has an experience of 12 years in teaching and tutoring and also she has an experience of 12 years in the practice of architecture. She is the author of 34 communications at international and national conferences and the author of 23 architecture articles, with an interdisciplinary opening, especially with medicine, psychology and sociology. She founded the concept of COMMUNITY ARCHITECTURE.
Mihaela Zamfir (Grigorescu) has her own studio MMG from 2006. She realized over 40 individual dwellings and residential complexes, over 30 interior designs for dwellings, apartments and banks. She has also 4 years experience in real estate.

Mihai-Viorel ZAMFIR

PhD, Medical Doctor, "Carol Davila" University of Medicine and Pharmacy, Romania

mihai.zamfir@yahoo.com

Mihai Viorel ZAMFIR (born 1979) graduated in 2004 at the Faculty of Medicine, University of Medicine and Pharmacy Carol Davila, Bucharest. He made his specialization in the field of Geriatrics and Gerontology and pursued his medical training in the field of Psychiatry.
He is a founding member of Romanian Association of Young Geriatricians, where he organized several training courses in the field of Geriatrics and Gerontology and participated at the organization of several events

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dedicated to the support of elderly persons. He is Assistant Professor at Physiology- Neurosciences Discipline, Faculty of Medicine - "Carol Davila" University of Medicine and Pharmacy, Bucharest, since 2011. In 2014 he finished his PhD with the topic of cognitive impairment and frailty of elderly with chronic kidney disease. He published several articles on the topic of frailty and cognitive impairment in elderly. He also has an interdisciplinary opening to architecture and ageing.

Gerontoassist Interdisciplinary Training Program - Multidimensional Assistance Of Elderly In Family And Community

Mihaela ZAMFIR (GRIGORESCU), Mihai-Viorel ZAMFIR

Abstract

Motivation:

According to data provided by UN, we are currently witnessing a significant increase in the percentage of older people worldwide. Consequently, society must be prepared for these demographic modifications involving changes in all life aspects. Dependency is a serious problem that can occur with advancing age. An important objective of dependent elderly care is to remain in community as long as possible, the AGEING IN PLACE concept.

The premise from which we started to think this educational program was maintaining elderly people in community as much as posible, as an alternative to institutionalization. We became aware of the importance of an interdisciplinary approach and consequently of training in this spirit specialists involved in the field of ageing: social workers, sociologists, health professionals, architects, psychologists, theologians, representatives of organizations for the elderly.

In this way, we conceived in 2013 GerontoASSIST-Multidimensional assistance of elderly in family and community, as an interdisciplinary training program.

Training program description:

GerontoASSIST training program has proposed to provide principles and practical information regarding care of dependent older people in community, in the spirit of an interdisciplinary approach.

Educational goals were: knowing the importance of elderly maintaining in community; highlighting the bio-psycho-socio-spiritual model and the specific needs of elderly persons; describing the impact of specific problems of dependent elderly people on family and carers; highlighting the importance of community solidarity for elderly support; knowing assistance systems for the elderly and ways to access them; establishing of a structure of interdisciplinary collaboration between different types of care for seniors.

Synopsis topics:
- Biological aspects of ageing-1h;
- Psychological problems of elderly-4h;
- The issue of family and carers-1h30';
- Social issues in elderly care-3h;
- Architecture's support for elderly-1h30';
- Community support for elderly-2h30';
- Issues of ethics and spirituality in elderly care-4h;
- Telemedicine and AAL-2h;
- Community care models-4h.

Lecturers: 24 lecturers- medical doctors-9, social workers-3, architect-1, psychotherapist-1, psychologists-3, theologian-1, journalist-1, IT engineers-3, working with elderly volunteers-2.

Trainees: doctors(10), psychologists(3), architects(3), social workers(2), nurse(1).

The role of architect and architecture in the training program:

Within the training program, architect was present in three roles: lecturer, trainee and interdisciplinary team member.

Lecturer architect:

Assistant Professor PhD. Arch. Mihaela Zamfir (Grigorescu) gave two lectures:

• Ageing in place - ageing in community. Contemporary models of elderly care, architect's point of view;

• Adapting housing for older people- architect's point of view.

Both presentations are based on research made by us in this field in the last two years. First lecture has analyzed the options for elderly care: assistance in community with maintaining of residence; community assistance involving relocation-Assisted Living Facilities, Adult Foster Care, Continuing Care Retirement Communities; institutionalized care-Nursing Homes. Second lecture detailed architectural principles in adapting housing for elderly.

The offered informations were both conceptual and applied. Presentations highlighted that architecture for today society's requirements is shaped by new parameters related to integration of elderly in community life. Today's architecture is accessible from whole to detail, it is barriers free architecture. Architecture can make people independent, autonomous, prostetical architecture and gerotechnology being subordinated.

One of the major elderly problem is depression resulting from isolation, on the other hand elderly need quiet, privacy, familiar space. Architecture can make the difference between being isolated and having privacy by spatial-volumetric design, indoor-outdoor relation, chromatics, glazing. Contemporary architecture has to answer to the set values of older persons. The community role of architecture was highlighted based on following ideas: architecture can enable communication between generations, architecture must address to the community and boost the community spirit, architecture can fight ageism.

Under these concepts were developed practical informations: accessibility, universal design, flexibility, adaptability, functionality and efficiency, security and safety, aesthetics, sustainability. Architecture of the 21st century is an AGE-FRIENDLY architecture for intergenerational communities, establishing balanced relations between generations, confers harmony to the community and constitutes a sustain-

ability criterion for the community. More, contemporary architecture is architecture of all ages.

The lectures on architecture gave concreteness to the training program, offering contemporary principles for achieving a proper physical environment for elderly in two poses: institutionalized and independent, both perspective under the concept AGEING IN COMMUNITY, proving itself the capacity of influence community relations.

Architect's perspective was completed by lecturers from related specialties that covered the following issues: community, bio-psycho-socio-spiritual model, medical problems, Ambient Assisted Living, domotics. The training benefits were mutual, and architecture proved the capacity of synthesis discipline.

Trainee architect:

Architects contributed to the dynamics of professional discussions, emphasizing architectural issues and related elements: spatiality, functionality, aesthetics. Community architect is interested in people, community needs and emphasizes social values.

Interdisciplinary team member architect:

The graduation of program was conditioned by participation of trainees in an interdisciplinary team project. The project themes were: Psychogeriatric care in community, Integrated system of elderly assistance and Day Care center for elderly with Alzheimer's disease. In the final assesment entered one architect and two student architects.

Architects's contribution brought both concreteness and humanizing to the projects.

Trainees architects become aware of the importance of interdisciplinary approach within Age-Friendly projects, being capable to work in an interdisciplinary team and building integrative capacities.They could apply bio-psycho-socio-spiritual model acquired during the course within the projects.

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Conclusions:

In GerontoASSIST training program, architecture completed the perspective on ageing and offered principles for contemporary shaping of an Age-Friendly environment, proving to be an essential component in elderly assistance. Including architecture in an interdisciplinary training program gave a broader bio-psycho-socio-cultural perspective to architects and offered useful informations to the specialists from the other fields involved in assistance of older persons. Final graduation projects provided the opportunity of practical work in an interdisciplinary team, featuring to architects the possibility to obtain all the necessary information to achieve proper projects for elderly. Architects who have completed the training program acquired certain skills and competencies in designing architecture for older people. The program organized by us, GerontoASSIST is a pioneering project in Romania and we think that such interdisciplinary programs are indispensable today and should be encouraged. We strongly believe that a proper age-friendly architecture can be conceived only by deepening information exchange with related disciplines.

Keywords: *age-friendly architecture, interdisciplinarity, elderly multidimensional assistance, community, ageing in place, ageing in community*

Oana Anca ABĂLARU

PhD Student, "Ion Mincu" University of Architecture and Urbanism, Romania

oana.abalaru@gmail.com

2008 - 2014 - Graduated "Ion Mincu" University of Architecture and Urbanism Bucharest, Faculty of Architecture (Valedictorian);
October 2014 - present - PhD Student at "Ion Mincu" University of Architecture and Urbanism Bucharest;
Theme: "Between time and space. Intervention in urban archaeological areas"
October 2014 - present - Teaching Assistant at Basics of Architectural Design Department, "Ion Mincu" University of Architecture and Urbanism Bucharest.

Inhabiting Ruins. Enabling Space, Time And Memory Of Archaeological Sites Through Contemporary Performances

Oana Anca ABĂLARU

Abstract

Throughout history, architectural legacy has not only been a continuous ABC for professionals, but also an identity element, a coagulation factor of the masses as part of a collective heritage. Even more we have to worry about the distance that the contemporary man unconsciously takes from the past and, in particular, from archaeological sites, many just outdoor museums or showcases, governed by the rule of "do not touch". Becoming less anchored in everyday life of man, the traces of the past reveals themselves as presences but not as participants to public life.

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For the modern man, his reconciliation with the past and the process of anchoring in history goes beyond studying and visiting actions, activities that establishes a distance between man and environment, involving an operating body based on more than the visual sense. Francoise Choay talks about the need for new kinds of juxtapositions, about a review of the relationship civilization-heritage of "being together". These new types of configurations questions the physical limit, "the offering" of the vestiges, surpassing the facade and unveiling the internal laws of the monument.

This paper investigates the possible relation between performance field and urban archaeological sites. At first glance, the interference between archaeological framework, witness of continuity and sustainability, faces a system dominated by temporary and ephemeral that privilege the moment. The gain of this contrasting juxtaposition is a tension simultaneously beneficial that, on the one hand, activates the archaeological context, making it partaking in this moment and, on the other hand, uses, in the contemporary show, the acoustic, scenographic and identitary qualities of the historical buildings. At another reading level, this juxtaposition of materials time tested, proofs of stability, with materials whose physical presence disappears once the artistic act ends can only inspire in the viewer mind reflections on history lessons and the condition of the present existence.

Terme di Caracalla in Rome is one of the first experiments that simultaneously puts together moment with memory, past with present, permanence with impermanence. Used since 1937 as a framework for opera shows, the Roman theater acts synergistically in regaining the ancient heritage and the urban space. This "otherwise" of the urban fabric, the archaeological site, exceeds its icon condition, inviting the public to understand his essence. Proposing four fundamental themes: recognisability, unity, ability and reversibility, Lucio Altarelli's recent project aims to relate new activities with the building, starting from the understanding of its compositional principles.

Another example with resonance in the cosmopolitan world is the Roman amphitheater in Verona, with a continuity of over 200 years of recent performance activity. Recovery intentions of the monument, dating from the Renaissance period, are seen in nowadays configuration and materiality. Hosting shows, concerts and

theater performances the building was one of the ancient structures that caught the attention of professionals and national authorities, setting an example for further interventions on urban archaeological sites instead of sites scattered in the region, as it was the trend until 1960.

These two successful symbiosis have encouraged such urban policies that have dissolved the defensive function of such the emblems of the past: ruins. The consciousness that such intentions have their starting point in urban decision makers and that they should be corroborated with new social habits, this is the great achievement that continues to enrich the urban context.

Keywords: *Archaeological sites, performance, identity, scenography, symbiosis, integration.*

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Luca Matei STOIAN

univ.assist.PhD.architect , "Ion Mincu" University of Architecture and Urbanism, Romania

stoianmatei@yahoo.com

Is an PhD. architect assistant in the Department of Interior Design at the "Ion Mincu" University of Architecture and Urbanism in Bucharest. Active member of the Romanian Architectures Order, his works have been nominated and awarded at the prestigious Annual Architecture in Bucharest 2012 and 2013. He has participated in both national and international conferences and is the holder of a national scholarship fellow "Vasile Pârvan" at the Romanian Academy in Rome, Italy.

Innovative Architectural Design. Cultural Center "Pană Filipescu Mansion"

Luca Matei STOIAN

Abstract

The project site is located in the "historic site" Pană Filipescu Manson, Filipeștii de Târg, has a high value for Prahova County. It is part of the old historical Romanian border, a sensitive place. A border that symbolizes a limit, cut, scar, discontinuity, but it is also the place where people, culture and differences meet. The research of an identity based on this concept might give a deeper meaning to the future of the area.

The main goal was to realize a permeable space, a place for gatherings, communication, and exchange. Thinking in terms of human scale, the design of the building remains inside the site's borders and reflects its purpose of sustainability, innovation and inclusion. It all became clear considering the limit as a modular space between the two areas (the historic monument on one part and the nature on another) and as a transformation into a place for conceptual debate.

Beyond the symbolic and historic values, it seems correct, for the community, to create an outdoor space for art and culture. A place where socialization is encouraged.

The preliminary analysis and the 3D simulations suggest a horizontal solution for the project, which generates a green architecture inserted in the site. The project aims to investigate and integrate innovative architectural design solutions. The functions, which do not need to be naturally illuminated in this case, have been placed underground in order to minimize the external volumes. Now, dimensions, spaces, pathways, all have been projected following man's scale, that creates a trail link between the mansion and lake, in the attempt of recalling the human spatial experience inside an ancient historic site.

The concept design started from the gesture of both hands closing together slightly shifted, creating a space between them, becoming a visual connection between the monument area with its park, high above on the plateau and the lake area located in the valley. Due to this discontinuity you can reach another dimension, a mental one, an art place symbolically linked to the historic site, which offers a well-defined space.

Through art the project evokes history and tradition, not through vernacular processes or Oriental settings, it is a exhaustive research of deep meaning with fine allusions. Critical elements both in terms of environment, urban-space, volume and function, are transformed by various innovations in a Cultural Center. By following two strategies in this case, one is a modular case, a neutral frame to fill with exhibitions, shows, concerts spaces. Another way is to consider the building as part of the artistic values that occur inside, giving the poetic, expressive, communicative and evocative features. The case choosen is reflected in the content.

Configuring the whole area as a successful urban intervention, around old "Pană Filipescu Mansion" Museum, and transforming the landscape into diverse numerous activities like: a area of communication and cultural dialogue, conferences, exhibitions, multi-purpose hall, restaurant, cafe-tearoom-cookie shop and also as an accommodation and recreation area around the lake was the main challenge of this project.

Prevailing itself from the idea that in the area's history, during the times of changing, rural transformation is going through architecture and for its symbolic features, it has a predominant role in construction. A good example is the amphitheater area, with its created ramp at the surface, generated by deep scars, which meant changing from being a division sign to evolving into a strong communication element, the access to the building.

Although the historic site was affected by extra-urban interventions carried out in time, the new technological procedures used in this case, like sustainable materials, energy efficiency through correct building orientatin bring out the importance of regarding every space's future.

For its innovative architectural design and exceptional interaction between different elements and aspects both in terms of designing buildings and social response, the Cultural Center "Pană Filipescu Mansion" has been nominated a the "Eco-Architecture" 2012 Annual Architecture of Bucharest thus underlining its perfect accordance with urban and cultural context.

Keywords: *architecture, design, innovation, technology, environment, intervention, context, space, attitude.*

Ioana CORBU

Architect, PhD student, "Ion Mincu" University of Architecture and Urbanism, Romania

ioana_corbu@yahoo.com

Is Contemporary Architecture A Product Of Globalization?

Ioana CORBU

Abstract

"Architecture is the will of an epoch translated into space" – Mies van der Rohe[1]

Although defined as a term in 1983 by Professor Theodore Levitt[2], the word "globalization" has its roots hundreds of years ago. Actually, the first mention of the adjective "global" dates back in 1892 and the first definition of it appeared in Webster Dictionary in 1961, as a derivative of the French word "mondialisation". In 2004, the definition of globalization as stated by the National Intelligence Council from the United States of America reads like this: "Globalization denotes the growing interconnectedness reflected in the extended flows of information, technology, capital, goods, services and people throughout the world." Globalization is an historical process, shaped ever since the time of the first silk routes of Eurasia and Genghis Khan's pursue of a world empire (1165 – 1227), its inception being deeply rooted in the adventures of the great geographical discoveries, starting with 10th Century China and the 12-14th Century Italian Maritime Republics. In the booked called "Pioneers of Globalization", Jorge Nas-

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cimento Rodrigues and Tessaleno Devezas[3] write about "the three basic waves" which contributed at the development of economic globalization:

• The first wave: the consequences of the transoceanic travels initiated by the Portuguese in the 15th Century (the international commerce involves four continents already);

• The second wave: the opening of the Suez Canal in 1869 and establishing a new route towards India;

• The third wave: the economic reforms introduced by the Chinese president Deng Xiaoping which reopened the boarders of China to the world in 1978, the fall of the Berlin Wall in 1989 and the "implosion" of the Soviet Union.

Neither the term "multinational" company is something new. In the year 1600 it seems that almost 500 such companies existed, their number doubled a hundred years later, in 1700. Before the First World War began around 3.000 multinationals were known, 30.000 in 1990 and over 64.000 nowadays.

In the 15th Century, during the great geographical discoveries led by the Portuguese, a new city model is established, the overseas cities with a European profile, highly connected to the global European cities of the moment, like Lisbon, Seville, Antwerp.[4]

And so, cities like Accra, Goa and Macau become more than just colonized territories, a pattern of administrative structure and political, social, economic, cultural development is being imprinted on them, according to the ones used in their conquerors' native countries. What started out of curiosity and profit strategy, the adventure of the Great Discoveries, has consequences even in today's world: Brazil, India and China are the main emerging economic powers of the world, with an architecture of the cities that reflects the history of the first cultural transfers.

While The United States of America stagnates and Asia is on the rise, Europe is in decline. In Europe there can be observed a series of issues like: decreasing competitiveness, slowing dynamics, aging of the population, lower research volume, human migration (mostly of the creative people) and the relocation of industries in Asia without being replaced by new ones.

Regarding the architectural profession, many American and mostly European architects are moving towards Asia or Africa and this is a moment when we can best observe how different cultures interact or even collide. It is a moment when architecture's importance to delivering political agendas and shaping social change is on the spot light. It is a point when we can highlight the experiment. The successful experiments are taken over, assumed and adopted worldwide. The architect is no longer the ambassador of a specific culture and of his native society; he becomes himself a way of transmitting information and innovation. The most important characteristics of globalization which have also shaped the architectural profession in today's world are: massive movements of people, information, capital and products.

The historical evolution of humanity has always relied on the principle of innovation, which came to complete, to change and to renew a series of customs, models and values that had already been grounded into tradition. In fact, Experiment means Progress. The history of the humankind is the history of the experiments and the history of architectural experiments is intimately connected to social, economic, social, political, technical and technological experiments. This is why the "restrictive filters" of globalization are culture, political administration, political disruption, technology and economy.[5]

Because of the vertiginous speed of changing things, the balance between traditionalism and modernity (understood as synonym of the experiment) is becoming more and more fragile. Because of the buildings' rise speed and fast growing urbanization, the attributes of the contemporary architecture have become effectiveness and universality. But architectural value does not consist only in an object's economic or aesthetic value, but it implies VISION. Architecture is a product that educates, inspires, shapes and reflects the contemporary society of the built architectural object.

"The timeless task of architecture is to create embodied existential metaphors that concretize and structure man's being in the world. Images of architecture reflect and externalize ideas and images of life; architecture materializes our images of ideal life. Buildings and towns enable us to structure, understand, and remember the shapeless flow of reality and, ultimately, to recognize and remember who we

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are. Architecture enables us to place ourselves in the continuum of culture."[6]

Keywords: globalization, innovation, experiment, economy, culture.

[1] http://www.nytimes.com/learning/general/onthisday/bday/0327.html

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Keywords: *globalization, innovation, experiment, economy, culture*

Stefano D'AVINO

Professor, "G. d'Annunzio" University of Chieti-Pescara, Italy

sdavino@unich.it

Specialist in restoration of monuments and PhD in History of Architecture, is associate professor of restoration at the Department of Architecture of the University of Chieti and Pescara.
Visiting teacher at the University of Mexico City UNAM and Associate guest professor at the University of Bucharest; scientific director of the series 'Contributions' and member of the Scientific Council of the journal Studies in Theory and History of Architecture, has participated in conferences in Italy and abroad and is the author of numerous works on the restoration.

The Complex Dialogue Between Contemporary Language And Preservation Of The Ruins In The Restoration Of Paul II Fortress At Cascia

Stefano D'AVINO

Abstract

Pope Paul II's fortress at Cascia was erected in 1487 by Francesco da Pietrasanta and Antonio da Settignano; only a few ruins remain, but it is still possible to make out its ancient perimeter: it has an irregular trapezoidal plan and was delimited by cylindrical towers at the corners; the main entrance, to the south, passed through a corridor between the two south bastions.

The excavation campaigns conducted from 2000 to 2004 in hopes of starting to reveal the historical text, turned up a complex stratification; therefore preservation and restoration work had to meet the need for reconnecting and endowing the whole with a temporal and spatial continuity.

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Thus priority was given to the consolidation of the surviving wall fragments, taking care to avoid jeopardizing the particular character the fortress has taken on as a ruin down through the centuries. While the general policy bars any anti-historical reconstruction hypotheses (even if philologically well grounded), it was decided to entrust concise, distinctly contemporary marks with the task of suggesting hypotheses for recomposing the fragments; at the same time, environmental cleanup operations made it possible to contextualize the archaeological structure, setting it into the environment, where it will be preserved.

It seems evident than in the past as in restoration in archaeological areas is manifested today greater attention to debris-formal aesthetic aspects, namely those arising from the architectural language still expressed by the pre-existence. Nor, for that matter, you cannot deny the new facies taken with the passage of time, despite the reduction of aesthetic values 'first', by some monuments with the inevitable process of interaction with the surrounding environment.

This leads us to consider the question of the 'reinterpretation' of the architectural fragmented, with solutions that go beyond the sun accommodations environmental, historical dictated by the instance, accepting the intervention of conservation of the ruins also proposals addressed to satisfy the valences of its 'instance aesthetics.

It 'just in the relationship between music and architecture fragmented nature, understood "not as corrosive and destructive force but as an engine of a process of continuous change" (Dezzi Bardeschi) that is accomplished, throughout history, the acquisition of a' new 'value. It follows as the design choices they can regardless of the 'current condition' of the remains, resulting in an inescapable relationship between history and restoration.

The reading of the material stratified offers, rather, a valuable opportunity to seize an organic view of the diachronic development of the monument: penetrate, in the "restoration of 'inventories materials' capable of historical-testimonial, documentary and evocative", functions and conservative prospects rivelative; a sort of 'working memory' which becomes memory interpretative, substantiated by a solid mastery of the documentary data. It is therefore in the restoration project that takes the enfranchisement of the archaeological remains of their otherness; At the same time, the reason for their conservation lies in their return its historical value.

The interpretation / return of the text, just as an act of preservation prevalent, will therefore inevitably characterized by a formative process, designed to facilitate, in a critical path, the reconnection of the fragments, in an intense and constant dialogue between material signs of the past and language of the present.

The planning that is derived from this intellectual journey, even (sometimes) not acting directly on the ruin, shows attentive to its peculiarities and addressed the critical attitude, will be reflected in minimal signs and diacritical, certain times summarized in 'architectures path'.

The parts added, although not directly put in relation to the ancient material, must be arranged in accordance with the pre-existence, within a large conservation project and in keeping with the vocation it expresses through its transformation process and its new space in which the values assumed formal 'insert' is delegated the task to demonstrate the process.

Keywords: *Preservation, Interpretation, Architecture fragmented, Contemporary language*

The Curtea Veche Palace In Bucharest. An Application Of Virtual Restoration

Stefano D'AVINO

Abstract

A reflection prevails when addressing the problem of the relationship between 'virtual modelling' and restoration (in other words, the impact of the simulation of the real result of a critical collection of quantitative and qualitative data from an architectural construction): does reconstructing a virtual space means implementing a restoration project, or does such operation fall within the sphere of representation? In other words: can one legitimately wonder to what extent intangible reality may be used to accomplish a remarkable evolution in the critical approach to preservation?

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State-of-the-art reality-simulating techniques prompt us to think again of the re-lationship between reality and its representations: therefore, virtual realities as real worlds. Simulation is opposed to representation, to the re-presentation of something that has been, because it does not reproduce any accomplished past but goes back to potential events, to possibilities, to something that may be.

The distinction is rather between virtual and potential, 'the potential - Aristotle maintains - is what is not there yet'; virtuality is what allows us to anticipate (in actual fact, to perceive) the reality is the vision of what this must be, then it belongs rather to the order of the project. They are two very different concepts, potentials and virtuality: the virtuality is not something that is not real, but it allows you to pass the time, and that it contains the profound purpose; 'the virtual is a project, a real project' (P. Quéau, 1995).

The theme explore the potential of virtuality to simulate a restoration considering the possible interactions with matter and protecting the ancient original values.

The 'virtual restoration' of an image seems to be, therefore, an ideal tool for com-bining different ordinary cognitive means: it can actually be used to optimise the understanding of textual information without acting on the 'matter of the work', so that its impact is reversible at all times and in any case.

The main, albeit not the only, target of virtual restoration is to reproduce the ap-pearance the work would have, once cleaned or restored: the virtual restoration of an image, not of a physical document, can collect information that, although missing in the original, cannot be directly inferred from its current condition. The added value of using virtual reality methods on the cultural heritage lies in the chance of providing experiences and therefore implementing cognitive processes, even in the absence of physical objects.

Such work can be compared to a veritable virtual restoration project that can be helpful in recording or transferring technical requirements, while reducing the risk of an incorrect or restrictive understanding of such requirements; the results thus obtained can actually be used for a sort of preview of a restoration project; so much so that one could even predict potential solutions for filling a gap. Basi-cally, the typical virtual-restoration method can be used to simulate a project,

while preliminarily (as well as 'safely') reviewing its results; through such process, one can also carry out projects that are not possible in the ordinary conservative practice: a controlled alteration and characterisation of chromatic values in order to recover hidden, abraded or effaced signs, filling gaps on un-drawn parts, read-ing information that is no longer perfectly visible; therefore, the so-called virtual restoration must be taken as a parallel technique to traditional restoration, as a complementary work, a helpful tool for textual reading and for historical and philological research; in addition, it is a tool for perfecting and investigating a project that, quoting Riegel, may be used to engage in a design exercise, first and foremost with one's 'thought and images'.

Cornelia FAISST

Mag. arch., University of Liechtenstein, Liechtenstein

cornelia.faisst@uni.li

Cornelia Faisst holds a Mag. arch. degree from the University of Applied Arts in Vienna, Austria — where she was a student of Prof. Greg Lynn and Prof. Hans Hollein. Furthermore she studied at the University of applied Science Liechtenstein and at the KTH Stockholm in Sweden. Currently she lectures "3D Modelling" and "Architectural Representation" at the University of Liechtenstein.

In addition she leads the Design Workshops for the "Maasai Community Art Space" project in Ololosokwan, Tanzania. The "Community Art Space" project is an EU-supported project of UNESCO Dar es Salaam in close cooperation with the local NGO, IrkiRamat; the Netherlands-based expert organization, African Architecture Matters; the Ardhi University of Dar es Salaam; and the University of Liechtenstein. Cornelia Faisst received for the "Female Maasai Master Builder" study the Margarete Schütte-Lihotzky project grant of the Austrian Federal Chancellery.

Since 2011 she is office manager of falkeis.architects in Vaduz, Liechtenstein and works on the MARXER.active. energy.building — a multi-family housing project with active energy reclaiming in Vaduz, Liechtenstein. Prior to that she worked for Span Architects, Vienna on the Austrian Pavilion for the EXPO Shanghai and on the City Centre Project, Las Vegas for Graft LLC, Los Angeles.

Exploring Innovational And Traditional Design Processes With Architecture Students And Female Maasai Master Builders

Cornelia FAISST

Abstract

This study looks at the possibilities of innovation in the design process and construction of traditional Maasai buildings. In the Maasai society the women are solely in charge of constructing their vernacular buildings. Due to a

bigger construction task the University of Liechtenstein has been asked to design together with the Maasai women of Ololosokwan and students of the Ardhi University in Dar es Salaam their new Community Art Space (a set of buildings).

On the basis of the Maasai Women Workshop of the Community Art Space this study explores the traditional Maasai design processes with the academic architectural design paradigm — and in particular how the two groups have been responding with each other.

The Maasai Women Workshop is part of the Community Art Space in Ololosokwan, Tanzania. The Community Art Space project is an EU-supported project of UNESCO Dar es Salaam in close cooperation with the local NGO, IrkiRamat; the Netherlands-based expert organization, African Architecture Matters; the Ardhi University of Dar es Salaam; and the University of Liechtenstein. It will be a meeting place for production, performance and sale of art and other cultural products. Furthermore, information about the Maasai tradition, culture and heritage will be accessible. Focus of the project is to initiate encounter and an on-going relationship between Maasai and visiting people.

In July 2014 at Ololosokwan Village, Ngorongoro District, a first design workshop was held with the different participant groups with the purpose to develop an initial architectural design for the Community Art Space.

During the design workshop, the local Maasai women and students of the University of Liechtenstein explored the traditional Maasai construction technology and local materials to better understand them and later build bridges between contemporary design and traditional elements. Until now the Maasai society has known only small housing constructions. But the female Master Builders have been recently in need for new design methods as well as assistance for new construction and material solutions. Therefore the focus at the workshop was not only to design new buildings but also to create an exchange of knowledge and design processes between the Maasai women and the European and African architecture students.

The main focus in the workshop was on understanding the Maasai building technique. For that a student group worked for several days in direct contact with a group of Maasai women. They were taught all steps of how to construct a so-

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called Enkaji (house): collecting wood from the surroundings, laying-up a floor plan and the construction itself. This learning process resulted in a sum of fully developed, finely detailed construction techniques

In addition a more in depth study on the female Maasai Master Builders has been conducted this included building surveys, observations and interviews with the Maasai women to collect data about the building process of the traditional Maasai Inkajijik (houses).

For the design of the Women Workshop the students worked with models and drawings, while the Maasai women constructed a one to one mock-up to finalize the architectural design.

The preliminary results of the research shows that the Maasai women and the students from different cultures initially have different concepts of starting the design process of a building. Nevertheless in the construction phase they worked perfectly together and explored new techniques and material solutions.

Hand in hand with the Maasai women, a masterplan has been created. The team of students asked the women to draw their ideas about the arrangement of uses within the construction site. Their suggestions for the spatial composition were discussed and worked.

In close collaboration between the women and the students an architectural design was created. Models, drawings and mock-ups, helped to together define the design, which resulted in the desired composition of traditional and contemporary elements.

As a conclusion it can be stated that both the students and the Maasai women have benefited from the workshop. In particular the students were able to learn from the Maasai women more about their democratic and efficient design and construction process. The Maasai women on the other side have been able to explore new spatial, functional and construction designs for the further development of their buildings.

Keywords: *Innovation, design process, traditional, Maasai, Maasai master builder, female architecture, vernacular architecture*

Cristina ENACHE

PhD, assoc.prof., arch., "Ion Mincu" University of Architecture and Urbanism, Romania

cristinaienache@yahoo.com

Cristina Iuliana ENACHE is assoc. Prof., Ph.D. architect, Director of Urban Design and Landscape Architecture Department, UAUIM Bucharest. She graduated as architect, UAUIM Bucharest, and she holds a Doctor's degree in Urban Planning. The PhD thesis title is The Urban Landscape in the Information Technology Context — study of new technologies implications and tendencies in the traditional urban structure.
She is managing partner at ARTTEK CB. Cristina Enache is Member of professional organizations OAR and RUR.
Her scientific activity includes: the book "City and the Urban Society in the Age of Information", papers, articles and lectures as single author or co-author: "Media Landscape","A disscussion about new Bucharest ShoppingScapes", "Macrostructures - a discussion on architecture and landscape", "Density and Landscape", "Landscape in the Informational Era", "Urban Landscape — From Message to Mediatisation", "Urban Landscape and Technological Development", "The landscape heritage, the value of the monument - parks. Study: Carol Park and Stirbey Park", "The Landscape in the Informational Age — between technology and genius loci", "European city in the Information age; The IT phenomenon in the contemporary society".
She is author and co-author of more than 50 urban study, landscape design and architectural projects: Taichung Gateway Park Competition, author (2011), Lunca Jiului Park - Craiova - Landscape Technical Design, author (2009), Busteni Central Park - Landscape design project, author (2008), PUZ Stirbey Park - Buftea - Master Plan and Landscape Study, team member (2008), Carol Park - Bucharest - Master Plan and technical project, author (2007), PUZ Expozitie Bvd — Bucharest — Master Plan, author (2007), Tineretului Park - Bucharest - Master Plan and technical project, team member (2006), Master Plan of Fardea, Timis, team member (2005), Busteni Downtown Spatial Design, co-author (2008), Targoviste City Mall, Targoviste / Privat project, co-author(2008), Civic Centre Medias— Offices, Collective Housing, Hotel, Commerce, Clinic, Church-Medias, co-author(2008).

Relational Landscape

Cristina ENACHE

Abstract

This paper defines a concept that responds to a general question that is characteristic to the current urban development, to the informational, communicational and mobility era:

What happens between different structures of the landscape? Between historical centre and new urban developments? At the interstices of structural juxtapositions resulted from the new infrastructure insertions, from the development of new functional or spatial structures, from the neighbourhoods and abandoned industrial areas, from the dysfunctional suburbs?

The concept resembles that part of the landscape that relates different spatial, functional, identitary structures, having the role to ensure the coherence of the landscape, to ensure the continuity, the fluidity, the attenuation of differences, providing social cohesion.

The Relational Landscape is a landscape in evolution, captured as phenomenon but also as present state.

The proposed thematic is in line with the current trends - both of solving the urban problems that appeared following the powerful growth of the cities, and the landscape issues as framework of social existence (as it is defined in the European Landscape Convention Florence, 2000).

The concept approaches at multidisciplinary level the urban landscape resulted after urban developments and globalization process, seeking to resolve issues related to formal - morphological, social - communitarian, cultural – identitary, functional and image aspects. The multidisciplinary approach - beginning with the urban / architectural sphere – involves the study of social – human, geographical – urban and technological – communicative levels, targeting a constant interaction between them.

The Relational Landscape as theoretical and also practical concept wants to solve the problems of spatial segregation, alienation and absence of the sense of belonging in the information society. This new concept includes in its definition the idea of spatial and socialcommunication - through coherence, connection and identity. The study is brought from the theoretical - conceptual area to the practical - applicative area, through reference to the concrete framework of the urban landscape.

The current research aims to outline a proposed concept with practical applicability, intending to form the theoretical framework for urban strategies directed to the complex structure (social, cultural, historical, urban and architectural) of the landscape.

The Relational Landscape is a new a concept intended to be used both in the architectural - urban sphere, as well as in the social, physical and communicative - media field.

The range of parameters established in the study will be available to be used in the analysis of the urban dysfunctions, in the strategies of urban revitalization and of recovery of the lost identity, caused by the nowadays urban explosion.

Keywords: *landscape, urban structure, communication, coherence, identity*

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Cristina SERBAN

PhD, lecturer, architect, "Ion Mincu" University of Architecture and Urbanism, Romania

se_cris@yahoo.com

PhD, Lecturer arch. Cristina SERBAN is now Head of Interior Design Department at UAUIM.
She studied Architecture at UAUIM until 2000 ("BMW Headquarters" Graduation Diploma project), "Management in Architecture" Master until 2004 ("OBJECT's communication capacity" Graduation paper) and PhD in Interior Architecture and Design until 2011 ("Mechanisms for visual communication of corporate identity").
She attended different courses for Furniture Design in Cluj Napoca (Romania) and Stadtlohn (Germany) and connected trainings for personal development and NLP in Bucharest.
Starting in 2002 she teaches interior design and furniture design studios in UAUIM.
As a professional she uses to design furniture and interior design, being focused on added value and optimal solutions according to her client's personality and demands. Except her mainly residential projects, she designed also offices and showrooms for clients such as EPSON, ING Bank, Doctor Celsius, MEDA and others.
Between 2002-2006 she produced 4 furniture prototypes which were exhibited at BIFE (2002-2006, 2009), BAB (2004, 2006) and LA OBIECT (2009). One of her present projects now is running the hülsta studio where she continues her professional activity.
She is an open minded person, communicative, always oriented to learn new things, very much attracted by Design including all aesthetic and functional tendencies and trends, without neglecting new technologies and ecological attitudes. Communication, commercial and social networking and experiences are also a constant and important target for her.
Foreign languages: English and German.
Other activities: she uses to organize and attend events, contests (including being a jury member), workshops, summer schools and other activities about Architecture, Interior Architecture and Design.
Contact: https://www.facebook.com/se.cris

It Wood Be

Cristina SERBAN

Abstract

"Experiment as learning tool"

As a teacher for first year of study to Furniture Design Studio in our University, starting with 2011 the students had to learn to work with wood by experiencing it in specialized craftsmanship workshop. They had to design an object or a furniture item, not bigger than a cube 40 x 40 x 40 cm, studying special wooden joints. They had also to produce their objects working themselves in the wooden workshop, together with the carpenters.

This poster will show some results and also different stages of production, explaining the theme required and some steps which were done, including their exhibitions and contact to the potential clients.

There were some few very interesting new objects created during the last 3 years which can stay anytime in line with other design items created by specialists – these products deserve to be shown in this poster / ICAR 2015's section.

Last year, in 2013-2014, we introduced a new technology by using LED lighting into this project. New ways of making the project were observed, their focus on wooden joints was distributed onto lights as well, but also other more special visual effects were achieved.

Innovative students were also choosing to combine more other technologies too – there were one loudspeaker created in 2012-2013 and another device for smart technology products as phones or tablets created in 2013-2014 in order to amplify the sound and make it loud by speakers.

Innovation was not observed just as way of combining technologies, but also as forms and functions generated by wooden technology – in 2011-2012 it was a very special product created by using traditional woodworking dovetail joints. This object had interesting architectural forms and also different ways to be used. In

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the same year, another product was created in such a way that its joints could confer structural stability to its product while using it, providing in the same time the possibility to ensemble/resemble it with easy.

The products were able to be exhibited in our school's stands at BIFE – Bucharest International Furniture Exhibition in 2013. In 2014 the products were exhibited in Brașov (November-December), but also in Bucharest, in June, in a public space where we could get questions like "How much it cost? Can I buy it?" These questions might be valuable to be considered in such a way that our University can plan experiments to learn and produce to sell and promote young students and the school itself.

This poster can be an opportunity to show the potential we can have and develop further. This presence of the poster to this section might lead to feedback from participants to ICAR 2015 and other audience which can be very important for taking the best decisions towards developing this idea or not (or how to do it).

It might be possible, if the space will be provided, to show also some items in real (not just the printed poster) – the single condition would be that the students should still have their products in good condition, being able to provide them to be exhibited and/or if ICAR 2015's organizers would approve this.

Keywords: *Wood; Natural character; Traditional craftsmanship; Technology; Quality; Ecological products; Furniture Design.*
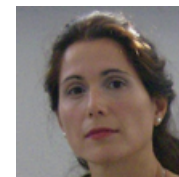
Alina VOICULET

Lecturer PhD Architect, "Ion Mincu" University of Architecture and Urbanism, Romania

alina_v@msn.com

Graduate in 1998 of Faculty of Architecture within the University of Architecture and Urbanism "Ion Mincu", in 2000 of Master in Urban Planning. In 2007 has obtained PhD for the thesis "Architecture in Nature - Nature in Architecture - Overlapping, Transfer and Hybridization."
She is Lecturer Professor at Faculty of Architecture, "Ion Mincu" University of Architecture and Urbanism, Bucharest. She has an experience of 16 years in teaching and tutoring, and also she has an experience of 16 years in architecture professional field.

Vibrational Architecture

Alina VOICULET

Abstract

How do the buildings where we live, work, and interact, are influencing our life, mood and health? The approach for interdisciplinary and transdisciplinary areas shows us how we can build spaces to increase the chances of being happy and healthy.

The approach for this topics from the perspective of several curricular areas, in order to build an image more complete. In other words, the knowledge and skills are transferred from one area to another curriculum.We are speaking of cross-curricular activity or trans-curricular. eg: Geobiology, Architecture and Vibrational Medicine – that proposing an theoretical field to become available to all classical disciplines and alternative medicine, as an understanding of intercellular communication between organs and between living beings, based on the issuance and receiving biological fields.

Vibrational architecture designs and builds multidimensional structures for the purpose of reintegration of the space-time relationships, natural patterns, evolutive consciousness and collective creativity. In other words the vibrational dimension in the design process articulates the following topics: vibrational phenomenology, metaphysics, mind and body experience and consciousness, multidimensional design, natural patterns and synergetic, micropolitics, collective creativity and vibrational ecology. It also address the universal principles of metaphysical and cosmological ancient systems such as Feng Shui, Vastu, Biogeometry and that may also converge to a vibrational architecture.

John Elkington in The Natural House Book wrote: "If the Earth was a human being, hospitalized in an hospital, the forecasts it would not be positive and the patient should be placed probably on a chronic list".

People are a whole, composed of mind-body-spirit which is in dynamic equilibrium with continuous higher energy dimensions. Tissues that make up our physical form are fed besides oxygen, glucose and chemical substance with higher vibrational energies which endows the physical properties of life.

Built in an healthy manner, means to offer to the residents of a modern habitat a healthy living environment, Fulfilling more accurate the function of ecobiologic mediator in the relation between man with nature. For a more harmonious integration of the object built in the environment, our intervention must be based on a holistic view, that works on the principle that every element of life reflected in it contains the whole and tends to a state of harmony with all other elements.

Keywords: *Vibrational, Biogeometry, Ecology, Multidimensional, Medicine, Architecture, Experience and Consciousness*
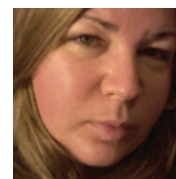
Magdalena STANCULESCU

PhD Arch., Lecturer, "Ion Mincu" University of Architecture and Urbanism, Romania

magda_stanculescu@yahoo.com

Magdalena Stanculescu is Senior Lecturer Ph.D. Architect at "Ion Mincu" University of Architecture and Urbanism, Bucharest at Design Synthesis Department.
She graduated from UAUIM in 1995, obtained The Certificate in Pedagogic Psychology and Teaching Methods (1995), her MArch title in urban planning in 1997 and her Ph.D. in architecture also at UAUIM, Bucharest in 2010, on theater spaces architecture field. She has an experience of 19 years in university teaching and tutoring, working since 2013 as Counselor at Design Synthesis Department - UAUIM, Bucharest and since 2014 as Chief of the VI-th year of study. She is the author of many lectures in national and international conferences, with many published articles since 1999.Before establishing her own architectural design studio(2004), she collaborated with several architectural and urban planning studios and companies. She is member of professional organisations: OAR – Order of Romanian Architects Bucharest Chamber, and RUR – Register of Romanian Urban Planners.

Experimenting Structural Space. Playing With Inspiration - Designing For The Future

Magdalena STANCULESCU

Abstract

In the field of architectural design, a multitude of principles guide the research.

As a result of changes in the design assignments, architects increasingly carry out their profession in collaboration with other disciplines. In order to achieve the aesthetic of mobility, they must work with road and hydraulic engineers and landscape architects. This means experimenting with combined programs, constructions, water and materials, but emphatically without the loss of the architect's

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own role and responsibility.

With the help of engineers you can build everywhere (skyscrapers, underground spaces, under-water, on the water, in space). Possibilities are theoretically without limits, but in practice the building technology is improving also by research and experiment.

Nature has an irreplaceable value and beauty, many colours, materials and textures. If you want, you can draw on the wealth of water, sky, trees and leaves, grass, stones and rocks. As an architect, you can use materials like wood, bamboo, zinc, copper, concrete, glass and steel in compositions full of contrasts. Interesting developments in architecture are produced by those who manage to create the freedom to experiment and to work together within the fragmented practice of design and building.

The present paper is regarding the necessity of permanent investigations into the architectural and structural space, which is the main way to create innovative possibilities of erecting spaces, of enveloping spaces or even of creating flexible, interactive or mobile architectural spaces.

The experiment is able to combine technical, human and playful aspects in a single solution. The thematic for inspiration must be chosen carefully from the infinity of possibilities; the inspiration is flowing and growth only after a period of observation, followed by a period of multi-criteria analysis; workshops with teams of specialists in different domains, interviews leading to the materialization of several directions of the intervention: potential, probable, preferred; this moment initiates again discussion and assiduous research.

Whether it's about the idea contests to solve a specific urban planning or architectural situation (example: Contest Bucharest 2000), either about reviewing based on new assumptions of an well-known concept (example: The International Competition launched by UAUIM in 2011 for students in architecture. Theme: Housing), the experiment make certain of these possible scenarios become probable.

I chose to present in this paper, along with some experiments that led to innovative solutions selected from the international architectural practice and competitions,

a few structural experiments carried out with students from the fifth year of study, in a team guided by Prof. dr.arch. Mihail Cocheci, dr.arch.Mourga Panteli and myself. Playing with inspiration, the students experienced with new materials for their structural projects and discovered their limitations as they went along. That led them to look for new solutions all over again. They are preparing to be designers without dogmatism. Their work has a permanent inspiring value. It shows what happens when you combine the technical with the sensorial. Architecture must appeal to all the senses and is never a purely intellectual, conceptual or visual game alone. Architecture is about combining all of the individual elements in a single concept. What counts in the last resort is the arrangement of form and emotion. The beauty of the projects lies in the combination of heavy and light, introverted and extroverted, tactile and abstract. Style is an outdated phenomenon. Architecture needs a handwriting that can write in different languages in order to be able to respond adequately to each location and assignment.

Based on my experience in teaching and research in architectural designing synthesis, I assess the importance of experiment as interface between architecture and structure, and I argue in favor of including more experiments as a designing base and also as a learning tool in the architectural studies, as interface between present and future knowledge.

Keywords: *experiment, innovation, designing structures inspired from nature.*
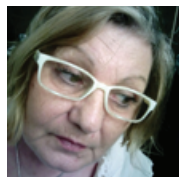
Cristina Victoria OCHINCIUC

PhD prof, "Ion Mincu" University of Architecture and Urbanism, Romania

cristinaochinciuc@yahoo.com

Dr. arch. Cristina Victoria Ochinciuc is professor at Ion Mincu University of Architecture and Urbanism, and holds PhD in Architecture (1999, Ion Mincu University of Architecture and Urbanism). Teaching diversified with gaining new skills through specialization, continuous training process, namely: The Ph.D. specialization in sustainable architecture and energy efficiency of buildings, energy auditor gr. I, and technical expert for quality requirements in construction. She was coordinator of master: "Sustainable Development. Integrated concept of built space and energy audit" (2002-2011), and is now Director of the Doctoral School SITT of IOSUD, UAUIM (2012). Research specializing in sustainable building architecture was in the grants / contracts obtained by competition as project director or scientific responsible of the Ion Mincu University of Architecture and Urbanism team partner. She authored 148 papers (journal & conference papers, books, chapters), 192 presentations (posters / oral communications, courses, lectures). She is a member of OAR Bucharest, and is a founding member of the AAEC Association of Energy Auditors in Construction (2004), also a member of the technical approval Committee of technical regulations of the Ministry of Regional Development.

Urban, Landscape And Buildings Performance Design In Terms Of Resource Consumption Control And Correlated With Climatic Parameters

Cristina Victoria OCHINCIUC, Mihaela Stela GEORGESCU, Cerasella CRĂCIUN, Sonia RAEȚCHI, Ana OPRIȘ, Radu ANDONE, Mihai SUARASAN

Abstract

The paper aims to show how is affected urban environmental metabolism and the formation of heat island urban in residential areas in Romania, to present the specific problems of residential site, and the human relations and socio-cultural behavioral within local communities, in the sense of urban landscape performance design in the city. Awareness appearance of these areas within cities, called "urban heat islands" (UHI) dates back to 1810. Climate change are in actuality and are forecast to continue over the next 50-100 years. It is imperative for cities to adapt to these changes in climate and a delay in the implementation of actions will result in uncontrolled growth implementation costs or necessary measures will be applied too late. The coming years are expected climate risks in terms of extreme heat, floods and droughts globally. Because habitat tends to be "revenge" on his occupants, long-term urban planning is crucial in terms of developing new areas of excessive heat and improvement or disappearance of the problems in existing areas. As urban areas grow, there are changes in the urban landscape. With the decoding of sustainable development in architecture and with defining the principles of sustainable architecture was created the frame under which buildings can help to manage the UHI impact on communities, in a degree of increasingly higher. The building as a system, as it is considered today through the principles of sustainable architecture as a whole must respond to phenomena such as heat waves; buildings may be considered at the same time cause and effect in UHI analysis. Where meet two areas of building' physics and urban' physics there is one of the most important in the study of UHI. Super-isolation, proper ventilation and shading technologies can be considered challenges to sustainable buildings to respond not only to climate change, but also to the phenomenon of UHI. Is this a qualitative answer given to the residential buildings, but is not enough when we are talking about this phenomenon. A holistic approach is almost impossible, but integrated design type is already a reality. Measured ecological values of a sustainable building, are easy to control, and we find them in the norms and regulations and finaly in accounting calculations; non-material environmental values can sometimes be more valuable during use of the building. Some collective housing complexes can be considered an important demonstration for the suite of used spaces: transitional spaces, public space, semipublic space, patios, passages and atrium etc. The interior is characterized by spatial flexibility - modulated structure - functional adaptability all are situated behind insulated envelope made of performance materials in terms of energy. We talk in the same time about the urban design and buildings deign in direct response

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to the needs of society, and in the terms of style of entire envelope of building as the decoration of city. From the environmental point of view of non-material values these integrates the building in architectural context. Because the building is conceived as a remember or as a signal. But envelope is responsible for building energy inefficiency. The construction details are very important. Integrated design requires inventiveness of the design team, and cooperation from the client or of project manager, knowledge and continuing education for teams builders, market measures and institutional regulations and banking.

Keywords: *urban heat island, sustainable urbanism, sustainable buildings, envelope performance, energy efficiency, resources consumed*
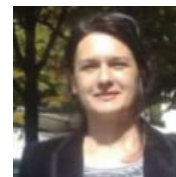
Monica RĂDULESCU

PhD, Associate Professor, "Ion Mincu" University of Architecture and Urbanism, Romania

monicabirou@gmail.com

Present Position - Associate Professor Urban Planning Faculty, "Ion Mincu" University of Architecture and Urban Planning, Bucharest

Education - Master in Architecture and Urban Design -Institute of Architecture and Urban Design Ion Mincu Bucharest 1992, Internship USA - Urban Development 1994, Urban Redevelopment - Cambridge University/ Great Britain 1996, University of Architecture and Urban Planning and Design of Bucharest, 2005- Ph.D in Architecture, Management Master Programme Univ. D'Artois France – Economic Studies Academy Bucharest 2011.

Professional activity – member of professional organizations - President of the Professional Comission of the Romanian Urban Planning Register, member of the Romanian Architects Order, Member of the Romanian Urban Planners Association,

Professional Experience and Academic Activity

Courses, research and studies in urban and territorial planning- Urban Programs, Development Indicators, Urban Economics, Metropolitan Areas, Urban Programs, Urban Planning and Rehabilitation.

Projects - Elaboration and coordination for more than 100 urban and territorial plans.of urban and regional development plans and studies, development strategies. Elaboration of urban planning and territorial development rules and regulations, national/ regional strategic spatial planning documents.

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Technological Development And Urban Form – Virtual Solutions For Real Problems – Urban Regeneration And Renewal

Monica RĂDULESCU

Abstract

Technological development has produced major transformation in urban form starting with the 19th century due to important evolution of transportation, construction and production technologies. Most of the innovative technologies have been rapidly implemented in an effort to adapt the settlements to the increasing pressure of the demand of the population working and living in urban areas. Important transformation in social, economic and environmental form occurred. After spatial dissociation, zoning, de-localization, urbanization, poly nuclear urban structure, metropolitan development, urban functional areas, new formulas for new urban activities, most of them with significant impact on the natural environment, a new era has been explored at the end of the 2nd millennium, the virtual era of the city. Development of communication, information infrastructure and equipment might be considered a solution for decreasing the pressure of human activities over the physical structure of the city, and diminishing physical impact over urban space. Electronic environment coexists with physical environment and living in the city is a dual existence experience.

Is this a transitory stage towards the virtual city or is it an experiment preferred by those who can choose between traditional and mediated activities? Is the city subject to electronic equity and is the environment offering equal opportunities and chance for all the inhabitants, and how will be the city dealing with segregation and sustainable development under those circumstances? Technological evolution involves change in perception, in city image and configuration, in economic and social structure, business location, social, medical, education services, leisure generating models based on electronic and communication connectivity for people, resources, activities, production or management offering a great number of possibilities for functioning, combining, organizing, selling, shopping and living. But is this model a sustainable one? A key issue, and one of the most important strategies for decline areas is urban regeneration, representing important progress compared with revitalization and renewal techniques, towards an integrated, comprehensive approach.

Dealing with job creation, job protection, accessibility to work areas for different groups, investment in infrastructure, housing, office areas, urban regeneration deals with profit generation, income production and distribution and represents a discipline situated rather under the political sciences umbrella than under the urban design umbrella due to the efforts and studies on the relation between power and population. (DETR, 2000). While urban planners formulate urban regeneration strategies seen as a set of visions and comprehensive and integrated actions aimed to improve economic, built, social and environmental conditions (Roberts and Sykes, 2000) it is for the architects and urban designers to translate into form the solutions formulated by planners.

Urban renewal seems to be more appropriate solution to architects and urban designers dealing with physical transformation of the city, urban development or re-development while urban revitalization and rehabilitation are suggesting the need for action without formulating an approach (Coach, 1990).

The paper is exploring urban regeneration and renewal solutions as an answer to technological development impact, is providing clarification for urban designers and planners on urban regeneration, urban renewal and urban revitalization presenting results of research studies developed within last 10 years as well as conclusions provided by educational workshops and study cases in an attempt to generate adequacy, continuity integration and sustainability of research and design efforts of urban designers and planners in innovative experiments.

Keywords: *innovation, urban form, regeneration, renewal, solutions, research projects*

Alexandra VIȘAN

PhD, "Ion Mincu" University of Architecture and Urbanism, Romania

alexandra.visan@yahoo.com

Alexandra Vișan (1986) is a PhD. and works as a teaching assistant at The University of Architecture and Urbanism "Ion Mincu"- Bucharest (UAUIM). In 2011 she graduated the Faculty of Architecture at UAUIM at the top of her class and received a "Bene Merenti" Medal. Between 2008-2009 she studied at ETSAV-UPC. In 2014 she presented her thesis titled „The tactile-kinaesthetic perception of the architectural space" and she was granted the Summa Cum Laude honor at UAUIM and one of the Creativity Prizes ARCUB-UNATC.

The Evolution Of Glass In Architecture From A Tactile Perspective

Alexandra VIȘAN

Abstract

Glass is the representative material of the 21st century and can be considered one of the most significant products ever to have been created by humans. Controversial and versatile, glass happens to be found at the boundary between material and immaterial, and best expresses the trend set by the dematerialization of information. Throughout time it has been associated with various values such as spirituality and technological progress. Last century's innovations were aimed not only at its transparency - glass's most important quality - but also at tangible characteristics. In terms of evolution, at the beginning, glass was used in architecture as small pieces that let light come inside. However, nowadays, the whole surface of the facade can be made of glass. Not only architects considered that glass is a fascinating material, but also artists who have experimented through time the aspects of this special product. Its visual and tactile qualities are amazing both during day and night time and this is why glass is such an important presence in our times. The large scale use of this product does not imply the absence of criticism. It is frequently lambasted due to its fragility, coldness or for its lack of scale. However, glass is more familiar to us than ever before because of the tactile screens that have invaded the contemporary city.

This paper aims to draw attention to the way in which the evolution of glass as a building material determined new possibilities of interpretation of its materiality. Although some architects consider that glass is not a tactile material because of its lack of stability and shadows, there are sufficient reasons to analyse glass from a tactile perspective. From our point of view tactility implies not only the direct contact eased by our hands, legs and skin in that very moment, but all the past tactile experiences that we had before, and, for this reason, we argue that memory plays a crucial role in architecture. The tactile qualities that glass possesses can significantly change the way we as individuals perceive the architectural space as a whole. We propose three possible types of tactile interpretations regarding glass: a profound, a superficial and an imaginary one. The first one refers to the internal structure of the material: warm/cold, smooth/rough, while the second deals with the way in which the surface of the material was realized. The last category refers to glass's ability to reflect objects, acting like a background that includes all the tactile-visual qualities belonging to the surroundings.

Another aspect that has to be taken into account regarding glass, concerns its level of transparency, which modifies the way the objects situated behind it are perceived. Even though glass is not seen as boundary in a traditional way, it definitely acts like one. In our opinion, there are three possible classifications referring to glass as a zero, partial or total boundary, each of them implying tactile aspects. The use of glass in public areas pushed the limits of physical space while the metamorphosis and innovations of materials generated new ways of conceiving and building architectural spaces. The chameleonic properties of glass are expressed through a variety of products used in constructions and ensure it a special place in architecture. Therefore this paper proposes an interpretation of the tactile aspects of glass, for a profound understanding of the architectural space.

Keywords: *Glass, tactile, profound, superficial, imaginary, boundary, metamorphosis*
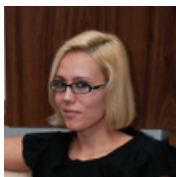
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Andreea Nicoleta BUNEA

PhD, teaching assistant, "Ion Mincu" University of Architecture and Urbanism, Romania

bunea.andreea@yahoo.com

Andreea Nicoleta Bunea is an urban planner and landscape designer, who teaches at the Department of Urban and Landscape Design. She has earned a PhD in October 2014, from the ION MINCU University of Architecture and Urban Planning. She has a Bachelor's degree in Landscape Architecture and a Master's degree in Integrated Urban Design. Her research interests are sustainable landscaping and landscape design, spatial and urban planning. She is a member of RUR (National Urban Planning Register).
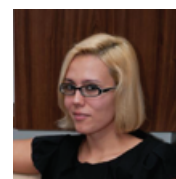
Irina PATA

PhD, teaching assistant, "Ion Mincu" University of Architecture and Urbanism, Romania

irinapatza@yahoo.com

Irina Pata is 28 years old urban planner and landscape designer, currently teaching at the Department of Urban and Landscape Design. She has earned a PhD in October 2014, from the ION MINCU University of Architecture and Urban Planning. She has a Bachelor's degree in Landscape Architecture and a Master's degree in Landscape Planning. Her research interests are video and film representations, landscape design and planning. She is a member of different professional organisations such as AAUPR (Romanian Urban and Landscape Planning Alumni Association) and RUR (National Urban Planning Register).

Liviu VELUDA

PhD, teaching assistant, "Ion Mincu" University of Architecture and Urbanism, Romania

veluda.liviu@yahoo.com

Liviu Veluda is an urban planner, currently teaching at the Department of Urban Planning and Territorial Development. He has earned a PhD in October 2014, from the ION MINCU University of Architecture and Urban Planning. He has a Bachelor's degree in Urban Planning and a Master's degree in Spatial Development. His research interests are urbanims and sustainable urban planning, spatial development. He is a member of different professional organisations such as APUR (Romanian Professional Association of Urban Planners) and RUR (National Urban Planning Register).

Sustainable Landscaping

Andreea Nicoleta BUNEA, Irina PATA , Liviu VELUDA

Abstract

In the context of climate changes that we face today, we need to rethink and reevaluate the criteria that we rely on for the sustainable development of architectural interventions. This sustainability of a building can be achieved by a better integration of landscaping into the process of architecture design.

Factors as topography, existing/proposed vegetation, a favorable position relative to the sun and winds, the quantity of precipitation and access to water supply/water surface, etc., contribute to the definition of sustainable building standards by having a significant impact on thermal, and also psychological comfort.

Climate changes facing us today at international and national level have widespread implications, with locally visible effect. Melting glaciers, floods, desertification, storms are effects that have a major impact on quality of life. Measures to combat climate change have implications when it comes to land use, urban planning, and architecture. Trying to reduce consumption of energy and natural resources will have a major impact on the construction sector.

Due to the challenges that arise in sustainable building design, more attention is needed towards sustainable energy resources (solar, wind, geothermal). The architect must have a holistic approach and take advantage of natural factors such as orientation to the sun, natural ventilation, daylight, etc.

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In this integrated system, landscape design must have an important role, as it can take many forms, which can contribute to the sustainability of the building. Whether it is the use of recycled materials from the site for further paved areas, whether the integration of a water management system involving green roofs, green walls or ground landscape design taking the form of rain gardens, or simple landscaping conceived in the context of local environmental factors, landscape design should be integrated into the criteria that underlie sustainable building certification systems.

This paper researches the relation between contemporary landscaping and land-scape design (green wall, green roof, rain garden design) and sustainable architecture. These interventions are the answer to the attempt to mitigate/combat climate change signaled in our country.

The cooperation between contemporary landscaping and environmental factors can lead to improvements in the micro climate around the building. Therefore, there is a need for a bidirectional link between anthropogenic and natural environment and this link may materialize in the form of landscaping and further landscape design.

Keywords: *sustainability, landscape design, green/sustainable building, sustainable landscape design*

Irina PATA

PhD, teaching assistant, "Ion Mincu" University of Architecture and Urbanism, Romania

irinapatza@yahoo.com

Irina Pata is 28 years old urban planner and landscape designer, currently teaching at the Department of Urban and Landscape Design. She has earned a PhD in October 2014, from the ION MINCU University of Architecture and Urban Planning. She has a Bachelor's degree in Landscape Architecture and a Master's degree in Landscape Planning. Her research interests are video and film representations, landscape design and planning. She is a member of different professional organisations such as AAUPR (Romanian Urban and Landscape Planning Alumni Association) and RUR (National Urban Planning Register).

Andreea Nicoleta BUNEA

PhD, teaching assistant, "Ion Mincu" University of Architecture and Urbanism, Romania

bunea.andreea@yahoo.com

Andreea Nicoleta Bunea is an urban planner and landscape designer, who teaches at the Department of Urban and Landscape Design. She has earned a PhD in October 2014, from the ION MINCU University of Architecture and Urban Planning. She has a Bachelor's degree in Landscape Architecture and a Master's degree in Integrated Urban Design. Her research interests are sustainable landscaping and landscape design, spatial and urban planning. She is a member of RUR (National Urban Planning Register).

Landscape Representation In Films

Irina PATA , Andreea Nicoleta BUNEA

Abstract

The speed that defines our contemporary society evolution calls into question how we understand and design our living environment, the vision that we have on it. Landscape as an element of synthesis between architecture and urbanism, requires theoretical and practical approaches to address the new trends in design. Charles Waldheim, professor in the Department of Landscape Architecture at Harvard University identifies two types in this aspect (Swiss Federal Institute of Technology, 2011). On one hand, a synoptic system (mainly represented by GIS applications and ortho-photo-plans) and on the other hand, one scenographic, sensitive, subjective (sustained by rendered images, collages and montages - photos, video).

This paper investigates the sensitive direction in landscape study, it takes into consideration the influence of motion pictures upon the landscape, is considering video as a tool in landscape design.

The analysis of urban space and landscape often overlook relevant elements or the quantity of information is so great that synthesizing it is almost impossible, in both cases is neglected, most of the time, the sensitive nature of the landscape. Andrei Pleșu (2009) emphasize that the classical landscape analysis still relies heavily on fragments rather than the whole, on levels, is selective, abstracted, isolated or searches differences and can often pass the overall view, it's fluidity, complexity, subjectivity that is, in fact, the landscape: stopping cannot be a good way to understand the fundamental movement of nature, its coherence, lacking in fragments (Pleșu 2009, 46). It is desirable therefore, to analyse the way how film captures different landscape features otherwise omitted and if by this way of reading and interpreting, we can improve the landscape design process.

The relationship between film and landscape is investigated in order to underline the relations between environment, senses and representation. The film is studied

not only as a mean, but as a language, and further more, as an instrument of representation. Landscape representation in architectural drawings has not the power to grasp its complexity due to three attributes that landscape incorporates: landscape spatiality (places, like things, conjure up a wealth of images and ideas), landscape temporality, and landscape materiality (landscape experience belongs to the sensorium of the tactile, the poetry of material and touch) (Corner, 1992, 147-149).

The existing theoretical background leans mainly on the relationship between architecture and cinema (Cairns, Eisenstein, Godard, Higham, Koolhaas, Nouvel, Pallasmaa, Tschumi), landscape perspective is less analysed (Bruno, Girot, Hopkins). Thus, we can identify an insufficiently discussed segment that is intended to be approached and explored in more detail.

Landscape is essentially a cinematic space by the way it is organised in time, through the dynamics of space and movement in space. A landscape in a film can be a source of inspiration, a critic on a specific issue, can act documentary or metaphorically (using symbols for transmitting messages) or instrument of analysis and investigation (video surveying, editing), of design or presentation and representation (the transformation of cinematographic techniques and effects into stylistic principles or spatial organization).

Film as an instrument is based on the transfer of processes, concepts and meaning, develops a critical thinking on how to watch a movie, has a documentary role and explores other relationships in terms of landscape analysis and representation.

This paper focus on the possibility to enrich the process of interpreting the landscape for a better understanding of the mechanisms by which we relate to it, an alternative method of reading and [re]presenting the landscape that sustain the existing approaches.

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Keywords: *landscape, film, representation*
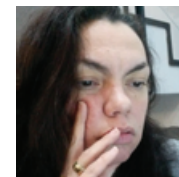
Veronica Maria ZYBACZYNSKI

PhD, assist., "Ion Mincu" University of Architecture and Urbanism, Romania

veronica.zybaczynski@gmail.com

PhD architect, teaching assistant in the Synthesis of Architectural Design Department, UAUIM
Postgraduate Studies Diploma (2005) - Thesis; Rehabilitation of existing buildings - the colour
PhD Thesis (2013): The colour in the rehabilitation of the existing buildings
Member of OAR Bucharest
Author and co-author of several buildings
Several published articles related to colour

Anca Mihaela CONSTANTIN

PhD, assist., "Ion Mincu" University of Architecture and Urbanism, Romania

constantinancamihaela@yahoo.com

PhD architect, studio assistant - Introduction to Architectural Design Department, UAUIM
Member of OAR, master of Urban Studies 2010 - Urban Management
Author and co-author of several buildings and numerous projects including individual dwellings and collective housing, office buildings, hotels, commercial spaces and interior design.
1st prize OAR Oltenia 2014 - Building restauration
2nd prize OAR Oltenia 2012
1st prize Plevna Expo Works 2007
Honorable Mention EAAE Competition Paris, 2004

The Chromatic Reading Of The Built Environment

Veronica Maria ZYBACZYNSKI, Anca Mihaela CONSTANTIN

Abstract

The surrounding built environment is not perceived as an environment devoid of life and colour, but rather as a coloured dynamic environment which the colour, the light and the texture shape it. In addition the individual, as a receiving subject and user of space, perceives colour differently depending on its position (inside or outside the framework considered). Colour, a purely subjective phenomenon, needs to be addressed according to perception.

People often relate to colour, Kevin Lynch (1990) observed that colour is one of the very important factors in terms of "imageability" of a city.

In approaching the colour issue from the perspective of the urbanscape, a series of questions raise regarding the way in which humans interpret, read the built environment and regarding the way humans relate to the colour of the built environment.

This article investigates the relationship between colour and built environment by addressing a number of theories about perception: from the computational theory to Gestalt principles, from neuro-aesthetics to environmental behavior studies.

The reading of the built environment and of the urbanscape is in a direct and profound relationship with the individual who passed it, with his level of understanding, as well as with the factors that influence his perception. Regarding colour, the perception of colours is influenced both by its generating factors,the physical system light-object surface-eye, as well as the visual experience of the individual, the way in which the received information is processed in accordance with the civilization and culture that the individual belongs to, with the belief systems and religious rituals and with the value systems that the individual associates to colour.

Over time, a number of theories regarding the mechanisms of perception tried to explain this phenomenon, managing to outline just some partial answers. Added up, however, these theories can provide insight into the mechanisms of perception and can help shape a general framework in terms of perception.

Although there are certain patterns that are created under similar responses to colour, however the interior structure and the individual experiences greatly influences perception, so that one can not talk about a universal response.

Perception carries in itself all the informations received from the environment but not as simple data but as experiences interconnected with the social, psychological and behavioral, cultural environment of the individual.

The colour profoundly influence people's psyche, them being aware of its necessity, but the uncontrolled and chaotic existence of colour in the urbanscape generates feelings of confusion. The colour can accentuate certain sensations and can correct the perception of space. Sensations of near-far, wide-narrow, height-lenght, instability- balance, dynamic-static etc offer certain keys so as creating and reading the space, the colour representing the means by which it can be stored and transmited the cultural and historical memory.

In conclusion it can be stated that the value judgments, through perception, that the individual is making upon the urbanscape and thus upon colour, are influenced by a number of factors that are purely subjective: on the one hand there is a reference of the individual with his psycho-affective structure and, on the other hand, a reference to the values of the community from which he comes.

Keywords: *colour, perception of colour, built environment*

Adina Ioana AVRAM

prep. drd., "Ion Mincu" University of Architecture and Urbanism, Romania

oavram@gmail.com

Work experience
June - September 2003 - Public administration / Northern Ireland Housing Executive 2nd Adelaide Street, Belfast, BT2 8PB
October 2003 – July 2007 - architecture Lauster&Radu Arhitecți S.R.L. Bucharest
August 2007 – December 2008 - architecture Atelier Mihai Dutescu S.R.L., Bucharest
December 2008 – February 2010 - teaching assistant, Universitatea de Arhitectură și Urbanism „Ion Mincu", Bucharest
Education and training: Universitatea de Arhitectură și Urbanism „Ion Mincu", Bucharest
Member of Ordinului Arhitecților din România (Order of Romanian Architects) starting with March 2009
Member of Asociatia Auditorilor Energetici pentru Cladiri din România (Association of Romanian Energy Auditors) starting with March 2013

Geometry Behind New Forms

Adina Ioana AVRAM

Abstract

The last decade has provided the profession of architect with a revolutionary development of the designing and performance methods and tools, which changed the manner in which space is fundamentally perceived. The parametric designing fundamentally modifies the digital representation of spatiality by the detachment from the explicit representation of the component elements to the establishment of the geometric relation thereof; the implemented methods determined new quests for form, with complex, heterogenic spatial materializations; these geometric forms usually being evaluated according to the structural and contextual implications that the final stage dictate. The appearance of these

forms and later on of a new trend requires, however, attention beyond technology, to what the new form offers as an involvement in the esthetic and social process of the human condition. The particular and immediate problem of the utility and concrete use of the new forms can be raised.

Geometry, however, asks questions related to the size, shape, relative position of a figure and the properties of the spaces. It is a good starting point for the investigation of the fine relation that establishes between the form of space and the human processes, whether social or esthetic, developed in space, as well as the technological development of the materials required to valorize this relation.

After a long period of time during which the conventional representation of the space was made using only the axioms of the Euclidian geometry, the modification of a single axiom thereof over the last two centuries radically changed the study conventions of the tridimensional space.

Key words: geometry, new architecture

GEOMETRY. In the plane geometry, the basic concepts are the point and the line, and the lines of the Euclidian geometry maintaining an equal distance from each other, even if they are extended to the infinite are known as parallels. The non-Euclidian geometry is a branch of geometry differing from the Euclidian geometry by the parallelism axiom. In the non-Euclidian, hyperbolic geometry, usually referred to as Lobacevski's geometry, we can trace through a given point two parallels to a given line, whereas in the non-Euclidian, elliptic geometry there are no parallel lines. In the hyperbolic geometry, the parallel lines in the Euclidian geometry will curve one towards the other, the distance between them increasing as they take distance from the common perpendicular line; these lines being referred to as ultraparallel lines. In the elliptic geometry, these lines get close to each other and intersect in a point.

The spherical geometry is the geometry of the bidimensional surfaces on a sphere, being an example of non-Euclidian geometry. The equivalents of the lines are not defined in the usual meaning of straight lines, but in the sense of the shortest distances between two points, referred to as geodesics.

It has been proved that the non-Euclidian geometries are not contradictory and even models were built in the Euclidian space that they verify. The creation of these non-Euclidian geometries proved the fact that several geometric systems are logically possible.

The non-Euclidian geometry can be easier to understand if we image the geometric figures transposed on curved surfaces, for example on the surface of a sphere or inside a soup bowl.

The recently elaborated projects are the result of a technological evolution which allowed, by the computer use, the obtaining of analytically generated surfaces or of surfaces elaborated by vectorization. Nowadays, even an archetype of the notion of "organic", namely the univalve shell (the sea snail), can be analytically obtained.

Keywords: *geometry, new architecture*
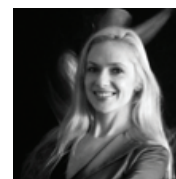
Oana UNCIULEANU

PhD student, "Ion Mincu" University of Architecture and Urbanism, Romania

oanaunciuleanu@gmail.com

2013 - Now - PHD on "Non-standard geometry in contemporary architecture" at Ion Mincu University of Architecture and Urbanism, Bucharest, Romania
2006 - 2012 - Ion Mincu University of Architecture and Urbanism, Bucharest, Romania; Architecture Department, Bachelor & Master's degree
2008 - 2009 - IUAV University of Architecture, Venice, Italy; Architecture Department- study scholarship
2009 - 2012 - National Art University, Bucharest, Romania; Painting Department, Bachelor's degree
2012 - 2014 - National Art University, Bucharest, Romania; Painting Department, Master's degree

The Use Of Algebraic Surfaces In Architectural Design

Oana UNCIULEANU

Abstract

I propose that we make an attempt to distance ourselves from the old ways of conceiving the architectural form and seek innovative solutions in the process of generating forms. I have made a connection between mathematics and architecture to observe how spectacular shapes are formed in an area of interest and how we can apply them in another. As a result I have obtained new spatial configurations put into practice by new technologies and materials. I tried to explore new qualities of space, structural effects and interior organizations that have the ability to increase our quality of life, thirst for beauty and desire for knowledge.

The investigation as proposed is based on algebraic surfaces. They are shapes determined by an equation that takes place in X, Y and Z dimensions, which satisfy the equation f (x, y, z, = 0). Algebraic surfaces fascinated artists since the early

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20th century, these include photographers, sculptors and visual artists such as Man Ray, Naum Gabo, Barbara Hepworth, Henry Moore and Max Ernst. The shapes of these surfaces have sculptural qualities, but the real challenge is to translate these volumes into architecture.

Achieving these architectural objects is based on structural form. There is no difference anymore between the envelope and the structure, decoration and spatial organization. One rule generates all newly formed space, and the building is synthesized by a single equation that underlies things in small detail, but also the whole.

Indoor-outdoor relationship is another key factor in addressing those new forms, which permit the flow of space by tracking the continuity of surfaces from one space to another, and occurs as a breakthrough of public external space in the interior, private space, by a suave movement of sinuous loop plans.

Contemporary architecture is between art and science and aims at discovering new forms, unimaginable, using the technological performance of transposing shapes into built space. Architects transpose ideas from the virtual world, or the world of concepts in physical form, creating a new aesthetic.

Using computer software allows the understanding of these types of surfaces by people from other areas. You do not have to be a mathematician to study them, with computer programs such as Surfer, it becomes quite easy for the rest of us to approach them. Because of an interactive method of operating the program, right away we can see the connection between an equation and its volumetric shape.

The surfaces that show architectural potential are: The Clebsch diagonal cubic surface, Kuen's Surface, Klein Bottle, Bianchi-Pinkall torus, Endras Surface, Enneper Surface, Kummer Surface, Fano Surface and many more. They are characterized by their symmetry, the singularities and enumerative geometry. In order to use those and surfaces, one has to apply deformations and degenerations, so they will become true architectural symbols, and not just stay in the beginning creation faze.

An important feature is their inner balance of the structure. There are already buildings made based on algebraic surfaces such as: UN Studio's 'Mobius House', Mcbride Charles Ryan's 'Klein Bottle House', Snøhetta architects 'Tubaloon pavilion',

and they all show us the many faces of the relationship of interior/exterior space.

Some of the forms obtained using algebraic surfaces are suitable for the virtual world, cyberspace. External factors related to the context and weather conditions, geological or structural factors pose no problem developing non-standard forms. Arises the question of a link between virtual and real.

Experimental design that starts from the relationship of mathematics and architecture is studied in the international context, in universities such as in the Faculty of Architecture in Belgrade, the Faculty of Architecture in Dresden, and Bartlett School of Architecture University in England. It is important that the new form generation concepts are studied by young people in universities because they have an opportunity to experience and discover areas of architecture untouched by others.

Between mathematics and architecture there is a close relationship. Mathematics is at the core of architectural thinking, but one can observe a change in the use of concepts over time. Currently architects no longer operate with a set of pure volumes: cube, prism, pyramid, sphere and the relationship between their proportions, but today mathematics introduces new concepts, the process becomes important, the forms are the result of formulas defined by experts, including internal factors that control parameters of the building, as well as the forces acting on the building from the outside. The geometry is dynamic, as is sought and selected from a set of steps that it passes through.

In recent years one can observe a change in the approach to architectural design. More fields work together to give rise to a new product, high-tech, elegant and efficient. The architecture combines art and science in an attempt not only to keep up with the rapid pace in which society changes, but also to impose a new way to experience the urban culture.

What succeeds this type of architecture is to establish a relationship between the sculptural volume and the architectural object, between man, the user and generated space. It proposes a solution to get close to the sculptural ideal and the materialization of spatial movement.
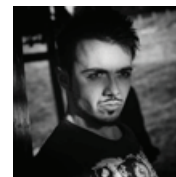
Alexandra BULEU

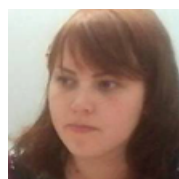master student, "Ion Mincu" University of Architecture and Urbanism, Romania

buleualexandra@gmail.com

Silviu-Vlad PÎRVU

master student, "Ion Mincu" University of Architecture and Urbanism, Romania

eller_ryas@yahoo.com

Odette ILIŞOI

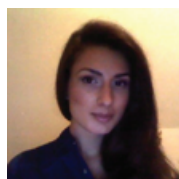master student, "Ion Mincu" University of Architecture and Urbanism, Romania

mail2odette@yahoo.com

Mihaela PUŞNAVA

master student, "Ion Mincu" University of Architecture and Urbanism, Romania

mihaela.pusnava@adep.ro

Diana COSTACHE

master student, "Ion Mincu" University of Architecture and Urbanism, Romania

urb.diana.costache@gmail.com

Mihaela STOICA

master student, "Ion Mincu" University of Architecture and Urbanism, Romania

mihaela.stoica1900@gmail.com
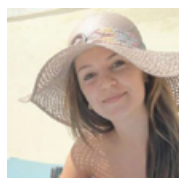
Cătălina NĂSĂRĂU

master student, "Ion Mincu" University of Architecture and Urbanism, Romania

catalina.nasarau@graphtech.ro

Urban Renewal In Crângaşi Area, Bucharest – Unbuilt Projects - Case Study - Poster

Alexandra BULEU , Odette ILIŞOI , Diana COSTACHE, Cătălina NĂSĂRĂU , Silviu-Vlad PÎRVU , Mihaela PUŞNAVA, Mihaela STOICA

Abstract

Urban regeneration in Crângaşi housing area emerged as important as the Strategic Development Concept 2035 for Bucharest designated the area as having strategic importance. A re-evaluation of dysfunctional aspects is therefore needed as well as a re-evaluation of the development solutions and strategies imagined in the past, in a sustainable approach having equity as core concept.

Crângaşi is a residential area situated in sector 6 of Bucharest and has development characteristics generating the need for action such as a high population and housing density, a poor urban public area image, a large concentration of commercial units in the Market area and good accessibility and physical connectivity in the city. Initially developed as a periphery, the area has been subject to major transformation during the communist years, especially in the 80s and 90s when the high density collective housing consisting of more than 250 buildings emerged in a rapid transformation of the area. Modest residential units have been replaced by high collective buildings having now administration problems and offering a poor image due to the lack of maintenance of the facades or due to the financial difficulties in performing such activities. Green areas, initially designed at a low ratio, are now abandoned, the public image being dominated by a large number of parking lots, improvised by the city administration or by the inhabitants in the street area or the sidewalk area. The lack of coherence in the public image is a result of individual and private initiatives solving thermic rehabilitation issues of the apartments and maintenance as well. The commercial area design solution is a result of private initiatives as well, and has been produced as a rapid answer to investment pressure, without having a general concept or intention. The result is a

chaotic and uncomfortable, unattractive and sometimes repellent urban environment.

New solutions are to be imagined driven by the connectivity capacity of the area, solving real urban development and design problems and conceiving solutions guided by actual urban development principles and approaches – high mobility, attractive business location area, friendly urban environment, attractive urban public space. Functional solutions are therefore determined by an integrated approach in a regeneration scheme for the area, while technical and design solutions are established in a renewal project.

The urban regeneration strategy of Crângaşi area is focused on attracting investment initiatives, development of business areas, reconversion of productive areas, new cultural and creative activities, pilot projects for area transformation and urban public image improvement. Morii Lake will provide opportunities and solutions for a better approach of urban environment potential and for a better capitalization of the identified potential, generating landscape design pilot projects.

The project for Crângaşi area is based on the scenario method focused on generating solutions and pilot projects for green areas rehabilitation, public lighting, facades rehabilitation, public facilities creation, communication equipment, green infrastructure creation, economic solutions for job creation, social inclusion initiatives such as cultural events, workshops, accessibility enhancement and improvement, in a regeneration effort designed for a period of 20 years and accompanied by renewal solutions.

Keywords: *innovation, collective housing, urban renewal, urban regeneration, solutions*

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Sergiu Cătălin PETREA

PhD, Lecturer , "Ion Mincu" University of Architecture and Urbanism, Romania

arh_sergiu_petrea@yahoo.com

Sergiu Cătălin Petrea is Lecturer at Faculty of Architecture - Basics of Architectural Design Department from "Ion Mincu" University of Architecture and Urbanism. Starting with 2012 he has also a course of Ecology and Technology in Contemporary Architecture at UAUIM. He has attended Advanced Design Methods Master Program in 2005 and has a PHD Degree in architecture on Emergency Architecture in 2011. He currently explores the perspectives of sustainable architectural design and energy efficient planning, being also concerned about themes related to poverty, experiment and urban regeneration strategies. His architectural practice includes buildings from all the fields of expertise, interior and graphic design and architectural contests. He constantly participates in international congresses and conferences and it is also involved in research projects. Many of his architectural research themes are reflected in scientific papers and various thematic studies published in specialized media.

Adrian MOLEAVIN

PhD, Lecturer , "Ion Mincu" University of Architecture and Urbanism, Romania

adrianmoleavin@gmail.com

After he graduated from "Gheorghe Asachi" Technical University of Iasi, respectively the "G.M. Cantacuzino" Faculty of Architecture in 2003, A.M. moved to Bucharest and, since fall 2003, he is a teaching assistant in architectural design studios at the "Ion Mincu" University of Architecture and Urbanism. In 2005 he obtains an Advanced Studies Degree in postgraduate program "Marketing and cosmotelluric quality in architecture" and in 2011 he completed his doctoral studies with the "Quantum Architecture. Theoretical and Practical Aspects." thesis. During this time, A.M. worked with several architectural design studios from Romania and abroad and participated in several architectural research programs. A.M.'s interests lie in developing practical and theoretical interconnections between architecture and the human existential universe with the aim of formulating a holistic, contemporary adequate, approach to architecture, based on ideas and methods found in quantum physics, in order to enrich architectural design and experience.

Sustainable Aspects Of Contemporary Wooden Architecture

Sergiu Cătălin PETREA, Adrian MOLEAVIN

Abstract

" If timber is become the material of 21st century, advanced teaching will be necessary. To train technicians, engineers and architects able to harness the energy of the green revolution of the new millennium." (Roland Schweitzer)

Wood is a modern material, even though his use is literally ancient; together with clay, wood is known as one of the first means of construction. Nowadays, its iconic image as a solid box, with advanced insulation is built with careful consideration for details and with great dexterity, either as a fragile-abstract ensemble or as an archetypal message that revokes the mystery of mythical forests. The present work aims to explore the main trends in the use of wood, illustrating them with case studies of our own work, as different situations occur in contemporary structures that focus on promoting sustainable perspectives.

The paper will further explain the use of wooden materials that are renewable and recyclable, as well as materials that are in some cases timeless and long-lasting. The study will focus both on high tech and low tech practice and on the eternal quest to achieve minimal operational energy demand. In the end it will be studied how by utilizing performing construction systems, we are able to reduce construction waste by 50 to 75%, while shortening the construction schedule and carrying costs.

The focus will follow the rise of the wooden towers and predicted sky scrapers that will soon replace the traditional structures of concrete and steel in the skyline of our cities. It will contain a short historical perspective of the evolution of wood building through the ages and will try to enlist some basic characteristics of the new typology of materials and structures. The paper will also contain case studies followed by a short analysis of the main features of this kind of buildings.

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Contemporary architecture calls for wood as a reference element, because of the various possibilities that it offers for fast and applicable constructions, advanced structural solutions, sustainability, low-costs and great availability. As it is the only renewable structural material, wood is often postulated as the construction material of the future ⬚ in can offer solutions with competitive prices, means of building in places with few natural and economic resources, covering the entire demand especially in emerging economies. We will further investigate the main highlights that certify wood as an optimal material for a qualitative architectural solution, with a powerful statement of sustainability.

We will follow also the trends that prove the efficiency of this structural systems that reached their peak simultaneously with the development of industry, the improvement of execution and the rise of BIM systems design type.

Environmental specialists consider of maximum importance the need to urgently balance the cycle resources/consumption for a judicious use in order to reduce the adverse effects of climate change and adequately respond to the main concern of our times - the fast growing urbanization and the uncontrollable development of world's population. Contemporary architecture must adhere to sustainable principles and be developed in close connection with environmental issues and a mature development.

Known facts and theoretical results from using natural materials and renewable resources clearly demonstrate the possibility of creating a harmonious architecture as well as to meet both economic considerations and durability principles. The paper concludes that contemporary architectural discourse rediscovers solutions from the vernacular architectural background especially regarding the reliability of natural materials and constructive structures.

Keywords: *tall wood, sustainable design, wood architecture, energy efficiency*

Mihai Corneliu DRIŞCU

Lecturer, arch. MA., PhD., "Gh.Asachi" Technical University, Iasi, Romania

mihai.driscu@gmail.com

Mihai Corneliu DRIŞCU is Vice Dean of G.M. Cantacuzino Faculty of Architecture, Gh.Asachi Technical University, Iasi, Romania, architect and urban planner, and Doctor in Architecture at University of Architecture and Urbanism Ion Mincu Bucharest (2004). Main fields of interests: history of architecture, contemporary architecture and design, architecture practice. His resume covers an interesting mix of research interests, many international and national conferences participations, published articles and a passion for philosophic topics. He is also a designing architect with more interesting realized projects and studies, among which: Functional Rehabilitation and Extension – Technical University Gh Asachi Iasi, Culture Palace Iasi Rehabilitation, CUB Temporary Theatre Iasi, RENAISSANCE Residential Development Iasi, specialist architect for rehabilitation at National Bank of Romania Hq Bucharest, and many other notable projects. He holds the position of member in many professional and transdisciplinary associations: OAR, UAR, RUR, International Forum" Man and Architecture"(IFMA) Amsterdam," Kos Karoly" Budapesta, International Art Section" Dornach, EAHN Delft.

Ana Cristina TUDORA

Assist-professor, arch. MA., PhD., "Gh.Asachi" Technical University, Iasi, Romania

tudora_cristina@yahoo.com

Ana Cristina TUDORA is Assistant Professor at G.M. Cantacuzino Faculty of Architecture, Gh.Asachi Technical University, Iasi, Romania. She is architect (2003, Faculty of Architecture, Gh.Asachi Technical University, Iasi, Romania) and Doctor in Civil Engineer at Gh Asachi Technical University Iasi, Romania, from 2014, based on the thesis: "Living Building realized with Ecological Materials". Her interests covers an interesting mix of professional practice and research activities: from personal publications, to personal studies for sustainable design, life-time of the building and national plans for design guides and data bases. Ana Cristina TUDORA is also a professional architect and practicing member of OAR.

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The Green Building: Tradition And Innovation

Mihai Corneliu DRIŞCU, Ana Cristina TUDORA

Abstract

The contemporary architecture is frequently seen as an example of "internationalism" meant to cancel the local traditions, transforming the human settlements into urban- functional extensions without identity. The fact that the architectural traditions proved to have found the harmony among the functional needs, the environment and the material resources are often ignored. The orientation of the design towards a sustainable development involves the assuming and reinterpretation of the old construction principles, ensuring the cultural continuity and the adaptability of the built spaces according to the economical and climatic changes.

Using elements, materials and technologies of the vernacular house, adapting them to the requirements of the contemporary life-style, must be assimilated as the right answer given to the current challenge concerning the environment problems and the global economic crises. These approaches stand both for functional-constructive aspects, specific to different regions and also for the use of ecologic construction materials.

Regional architecture is often neglected, leading to the loss of local knowledge regarding the manner of creating comfortable life with limited or even inexistent power consumption. The design of the contemporary house, can and should use the elements of the traditional house, as well as observe aspects related to the current lifestyle than cannot be neglected. It is a perceptive need for us to turn architecture back to the most profound human needs, to grow the impact of urban scenery on men's behavior through designing for people.

Sustainability can be seen also as a social responsibility for everyone, not only for architects or people involved in the design process. The concept of sustainable building incorporates and integrates a variety of strategies for both design and building process; the assessment methodology of environmental impact in the field of constructions represents also an extremely debatable subject, whose importance is highlighted by the more and more fast increase of the complexity of environmental issues at global level.

Life Cycle Assessment (LCA) represents an assessment process of pollution loads on the environment, associated with a product, process or activity. This instrument generally captures complicated network of relations between the location of the building, construction, its use and their impact on the environment, a network which is similar to the complexity of ecological systems in the nature, which operate as an integer, any change having a resonance within the system. Thus, the answer that architecture and therefore its product - construction gives to this new set of requirements on environmental protection can be scientifically underlined through LCA. These aspects may have a decisive influence, because an object, even an architectural one, can became unnecessary or unsustainable if it is not embraced by the user and does not resonate with local spirit. So, in order to achieve a sustainable architecture, socio-cultural aspect must be the starting point of the creative design process.

The topics under discussion are the main influences on the final architectural design, resulted from the application of a series of sustainable principles, mentality and the openness shown by future users towards technological innovations, present today in the built environment. The design approach fits as much as possible on a sustainable mindset, which can be viewed as an experiment in architectural practice. Therefore, the study exceeds the global field of sustainable architecture, which unfortunately at this time provides generic directions of approach, without taking into account the fundamental differences related to the geographical, cultural and educational typology. The article is trying to give a real answer to such requirements, therefore the client's role in decision-making is at least as important as the other issues discussed, emphasizing once again the fourth essential pillar of sustainable development, namely the cultural, social, environmental and economic ones (Jon Hawkes), but we may add educational practice, as well.

Keywords: *research projects, architectural experiment, sustainable development, tradition, education, innovation*

Carmen Ştefania DUMITRESCU

PhD, associated professor, "Ion Mincu" University of Architecture and Urbanism, Romania

carmen.dumitrescu2007@yahoo.ro

Architect, designer, teaching at UAUIM Bucharest since 1990.

What Materials Do We Need For Our Future? Case- Study: Glass

Carmen Ştefania DUMITRESCU

Abstract

We live a time of rapid and significant change: changes in our lifestyle, in the way we relate to the natural environment, in the technologies and materials we use.

The current real need for new ideas is putting us all on pressure: we have to experiment more, to be creative, to innovate.

We will present some interesting experiments and innovations, coming from different areas, from art, architecture, design, the science of materials. These examples will help us define some of the most promising directions for future developments in architecture and design.

Context:

The current crisis seems to be only the tip of the iceberg; it seems to be the symptom of a real threshold, the end of an era, the challenge to start a new one. We experience rapid and massive changes, therefore the need to assess and then re-imagine and re-invent our built environment.

Learning from the past:

It is necessary to evaluate correctly the current realities, understand the complex problems we have to surpass, choose the positive elements to build upon – we will discuss some relevant examples from urbanism, architecture and design.

Prospecting the future:

We should consider all sorts of new ideas and inspiration sources: scientifically defined or popular culture trends, futuristic models, SF, fundamental and applied science. We will attempt to present some of the most promising potential developments, the ideas that might shape our future, illustrated with relevant examples from urbanism, architecture and design.

Brave new world:

Humanity is now starting to structure the project of an expanded and refined artificial environment, a world with new dimensions - built environment on earth, built environment in space, virtual reality.

Materials for the future:

We need new materials and technologies for the future: these materials should be polymorph, adaptable, sustainable, 'smart'.

We will present the case study of Glass, a key material for the brave new world. A material that is known and used since the Antiquity, glass had an impressive evolution up until our time and now seems to be the perfect candidate for becoming the "best material for the future". From a new Glass House, to new glass products, to "A Day Made of Glass" – glass proves to be extremely versatile and spectacular, a valuable material in terms of use and re-use, for pragmatic and esthetic purposes.

The challenge to innovate: why and how?

We need to change our paradigm, our attitude and our approach.

We should build useful experience upon all sorts of experiments, from art to research in fundamental and applied science; we should learn from each other

and then we should get to work together in inter-disciplinary teams, even across boundaries, into trans-disciplinarity.

We should also incorporate these ideas into our day-to-day architectural practice and into the specific education process – the new generations should be prepared to produce new concepts, to have the courage to implement them and experiment, the force to innovate. The key words in this endeavor should be: 'creativity', 'innovation', 'sustainability' and 'responsibility'.

Keywords: *innovation, experiment, creativity, sustainability, glass - material for the future*

Dan-Adrian IONESCU

Assist. Prof., PhD, "Ion Mincu" University of Architecture and Urbanism, Romania

ionescudan83@gmail.com

Dan Adrian Ionescu recently finished his PhD at Ion Mincu University of Architecture and Urbanism where he is also a lecturer. He is interested in the field of interactive art installations where he designed few devices: Triolin AV, Wake Up, BULA. He is also creating club/festival environments using both colour lighting and video mapping.

Augmented Reality In Forgotten Spaces

Dan-Adrian IONESCU

Abstract

Augmented reality is a system that introduces 3D overlaid elements in real-time environment images. It was and is considered an area of real interest, but little developed, cause to poor performance of hardware systems. As applications, this area reaches some of the largest levels of medical, avionics, military, automotive and up to the entertainment industry. An augmented reality system is mainly made of three parts: a camera, a computer and a monitor or projector. The camera interprets the environment, the system processes and the monitor combines the surround system image with virtual images.

These systems are commonly used in automotive windshield by designing the type of information about speed, GPS directions and more.

To see how they reached that experience, we must know that everything went from playing computer games that appeared in the 70s, leading to the continuous development of digital graphics, included worldwide fascination with virtual reality games created. It was found, however, that entirely computer generated

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environments, the user is completely "immersed" in that program, bring along some problems with loss of contact with the real environment. So he wanted a return to reality and thus emerged mixed reality levels. Loosely translated means combining in different proportions real and virtual elements, to produce an intermediate medium consisting of reality enriched with information. In other words, augmented. The term itself was first formulated in 1992 by a Boeing engineer who used this technology to assemble aircraft cables. Only in 2008 is the first application to reach the consumer - it is a connection to Wikipedia that provides access to its information's to the owners of mobile Google Android operating system, about places and objects filmed in real-time via their smartphone. The most trivial example of the application of this technology is that of the soccer matches transmitted by TV. You may have noticed that when running a free kick for instance, a graphic element appears on the screen showing the distance between the ball, the gate and the wall of players. The real element of this equation consists of the game of football and the players and the virtual element brings a plus of important information for the viewers.

Exactly the same happens in snooker or billiards games when the televised transmission's director introduces over the television image a trajectory line that the white ball should follow for a right strike, at that point in the game. Coming from the world of television, another example would be the helmet of fighter aircrafts pilots. Well, the pilot of an F-35 for example, has always projected on the helmet visor, or in front, flight details, technical data he needs and can even direct the eye movement, the goal toward which to move supplied missiles during missions.

In this case, augmented reality is characterized not only by receiving data about the object within range, but through interactivity. This system is called generic "head-up display (HUD- ie display at eye level). There is also "virtual-Retina Display" (VRD - image formed directly on the retina) which is a technology built into the glasses apparently simple, but provides information in real time and can act as a reminder for daily agenda, GPS or reader for messages in mailbox.

In these two cases, a whole system lies behind the formation of real images, augmented: a graphics accelerator computer for generating elements of virtual reality, a head-mounted device or as glasses, to superimpose virtual image over the real

ones and a GPS system. If the device that is mounted on the head is primarily used in the military and in medicine or by structural engineers, the other technology to generate images directly on the retina is not yet very widespread, but much easier to use. Microvision company, for example, produce augmenting reality glasses and transposing the virtual images created on one or both lenses. Recently appeared the possibility of overlapping digital images over real ones using machines windshield. Thus, a driver can have easier access to GPS, telephone and on-board data, without having to move the eyes to all sorts of devices. We already know that by now iPhone and Android phones have such embedded applications.

So we are not talking only about utility for augmented reality, but also about a lot of fun. This will be, in a sense, a fourth dimension of the Internet. It will create many opportunities for local communities. Media organizations and advertisers will be able to offer interactive content for interesting promotor areas. Then imagine what it would mean to be able to read an adventure book, for example, through augmented reality, traveling even after stepping author while reading passages about those places. It will certainly change the way we write, correspondence and work. In addition, perhaps one of the most important advantages is to give people a reason to travel or simply to go for a walk. We will not question that we get lost in a city you are visiting for the first time, and this is great news for those who have genuine fears about unfamiliar places. Expanding PC screen in real environment will allow us to work with icons in Windows or any other operating system in real space and use them through gestures, without having before us a monitor. We can do it anywhere we are, and the simulator can generate 100 virtual windows all around the user. If such perception systems for augmented reality would spread around the world, it can even be reached virtual advertising billboards, posters or signs for public roads. Only our imagination can limit the possibilities brought by augmented reality, and for the first time we can think of this technology as a fulfillment of the near future.

Keywords: *Augmented reality, technology, new media, experiment, historical places*

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Dragana KONSTANTINOVIC

Phd, assistant professor, University of Novi Sad, Faculty of Technical Sciences, Serbia

konstan_d@yahoo.com

Dragana Konstantinović, PhD, works as assistant professor at Department of Architecture and Urbanism, Faculty of Technical Sciences, in Architectural Design course line. Graduated in 2003 at Faculty of Technical Sciences (FTS), gained MSc degree in 2009 at Faculty of Architecture, University of Belgrade, and PhD degree in 2014 at FTS with thesis entitled Programmatic Basis of Yugoslav Architecture: 1945-1980. She is practicing architect and active researcher in the projects funded by Ministry of Education and Science (Republic of Serbia), in the field of architecture and urbanism. She published her works in national scientific journals, books of proceedings and presented her research in numerous international conferences.

Miljana ZEKOVIC

Assistant Professor, Faculty of Technical Sciences, University of Novi Sad, Serbia

zekovic.miljana@gmail.com

Miljana Zeković is an Architect; Assistant Professor at the University of Novi Sad; active member of OISTAT; Educator in the fields of Architectural Design, Ephemeral Architecture and Scene Architecture. In the focus of her research are mutual relations of contemporary architecture and other media, as well as analysis and improvements of the artistic processes, design and education. She has a significant experience as a creative workshops leader on both national/regional (Serbia/BIH) and international level (ISDSWE programme workshop leader in 2012 - Beijing, PR China;WSD2013 Scenofest architecture team leader - Cardiff, UK). Get in touch: zekovic.miljana@gmail.com.

Research And Pre-Design

Dragana KONSTANTINOVIĆ, Miljana ZEKOVIĆ

Abstract

In attempt to scientifically explain the process of architectural design, numerous algorithms, methods and theories are conceptualised, and used, as such, in educational purposes as the best available tool for grasping and learning rather elusive process of designing.

In design studio, the process of designing evolves in the controlled and supervised manner, leading the students through predefined stages. This methodology, rather common to architectural education, acquires student with knowledge and skills necessary for the architectural practice, through the process of problem solving in particular design assignment. The scheduled milestones of the process help them refine the solutions and illuminate most of design problems. The rhythm of the studio work and predefined timetable is in accordance with envisioned studio outcome - a student design work - which is the confirmation of all acquired skills and knowledge.

Although the benefits of this methodology are numerous, we still need to point out rather limited time and resources it leaves for exploration of firm conceptual ground of such pursue. At a certain point of the process, this fact renders whole design work while student struggles to critically address his/her design solutions, or simply attempts to initialise design process with no standpoint. In these cases, design decisions and outcomes begin to rest solely on the intuition, persistent form-finding attempts, personal talent or just accidental preconceptions.

Our strong determination to rest design decision making on the firm ground of the thought and contextualised ideas or grasped phenomenon, which is understood and explored, sometimes is not easily executed in the short period of semester design work. That is why, the whole set of ideas behind design process is not completely comprehended nor employed as such.

With these in mind, we decided to make an experiment and create research de-

sign studio on the master level (module Architectural and Urban design), within the course Architectural Design of Complex Programmes (2014/2015). With modest physical and technological capacity of the space we were working on, we had to create course matrix which will keep the one semester long design research in energised and vivid state, while students create solid base for their future Master thesis work. Although this Master module implies designing as the principal category of work and design as a product/result, we found that architectural research focused on pre-design stage essential and justified on several levels. (1) Firstly, we found it necessary to synthesize design experience not through the complex design product (programme), but through layered design process. This endeavour will enable students to tackle, once again, and for the last time before they leave the University, all the issues of research in pre-design and concept anticipation stage. The work on the course has the form of the loose predefined assignment matrix, which is changed and refined through the course lifespan, tackling general and individual issues of design process, through space design workshops, diagramming, space programming, architectural research, presentation and discussion. Thus, the focus of the work/research is shifted in pre-design stage, putting the emphasis on concept searching, instead of form finding.

(2) The platform of this experiment - the course itself - gave significant impetus to this decision. The notion of programme, as an internal force of design is integral prerequisite for anticipation of the concept. It is understood and thought as a "complex spiritual product" with a capacity to move design process. In such definition, there are no un-complex programmes, only "banalised" programmes, and whatever design type student choose, it can fit under this paradigm. (3) The outcome of the course work is an individual design concept/platform, which is to be developed in Master thesis, completely embedded in design research executed through semester, as a result of personal development of design methodology which can be starting point for future practice. The synopsis of the thesis thus comes in no pre-described form, but includes documented process of research, space concept development, contains series of diagrams, notations and maps, by which the conceptual platform of the future design is kept in raw and evolving state, while the result of the studio becomes design process, not design product.

Keywords: *Architectural design; Architectural research; Pre-design; Design Concept; Architectural programme*
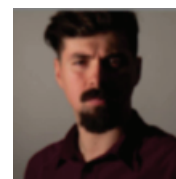
Gabriel-Ionuţ MÂNDRIŞCANU

Assist. Prof., "Ion Mincu" University of Architecture and Urbanism, Romania

gabriel.mandriscanu@gmail.com

Dan-Adrian IONESCU

Assist. Prof., PhD, "Ion Mincu" University of Architecture and Urbanism, Romania

ionescudan83@gmail.com

Dan Adrian Ionescu recently finished his PhD at Ion Mincu University of Architecture and Urbanism where he is also a lecturer. He is interested in the field of interactive art installations where he designed few devices: Triolin AV, Wake Up, BULA. He is also creating club/festival environments using both colour lighting and video mapping.

Wake Up! - An Experiment For A Better City

Gabriel-Ionuț MÂNDRIŞCANU, Dan-Adrian IONESCU

Abstract

In June 2014, during the Romanian Design Week event, NOIMA - Creative Group participated with the project WAKE UP! - an architectural experiment that tested the ability of the public to imagine an ideal city and to come up with solutions to some obvious problems of the city.

We proposed an interactive installation, that consisted of a support stand for machinery (graphic tablet, laptop, projector) and the projection itself, on the wall. For three minutes a film was projected on the wall. Visitors could draw in real

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time, using a graphic tablet, and their drawings were added over the original projected film. Thus, each individual was challenged to use his imagination and create something different.

The movies, on fast forward, highlight the problems, the aspects that are important and need to be solved. The eyes are shut. Oneiric atmosphere. It emphasizes a state of dreaming, because in our dreams anything can happen. What is important is that when you wake up, you start acting and stop to being indifferent.

There were 8 movies that depicted 8 different places with various problems, from Bucharest, with 8 different people, in order to emphasize each one of them.

At the end of each movie, the software took a screen shot. This way, the project's facebook account was updated live, with all the creative ideas of the visitors.

WAKE UP!

The city. Evolution. Transformations. Dysfunctions.

We focus on urban spaces and objects that can visibly go through changes, repairs and interventions. An intervention generated by people, for people. For us all.

Often, the speed of all the things that evolve around us is overwhelming and we are not able to see what can be done. This is the time to react.

We close our eyes and we imagine the way we want our city to look like.

The experiment was a great success, with more than 1,500 drawings for 10 days during the event - Romanian Design Week. The drawings are depicting various solutions, from the most innocent and playful, to some realistic or ironic, all of them composing the picture of an ideal city or at least a repaired city.

For the ICAR 2015 presentation we intend to do a live demonstration of the working software. We also want to present the conclusions of this social and psychological experiment, the film of the event and some examples of the proposed solutions.

The two autors founded NOIMA - Creative Group as a team of young professionals in architecture, interior design, photography, visual media, product design and graphic design. It consists of 12 members, each with more than 10 years of individual experience, united in this formula, a group project.

The group aims to promote the romanian creativity at national and international level by encouraging young professionals from all the fields of creative activity. The group's projects and programs also have a social side, since they believe in the young generation's ability to enhance the quality of life through their ambition, experience and performance.

Keywords: *experiment, interactivity, technology, city problems, solutions, imagination, real time drawing*

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Ruxandra PUŞCAŞU

PhD candidate, Technical University Cluj-Napoca, Romania

ruxandra_puscasu@yahoo.com

Ruxandra Puscasu is currently undertaking a doctoral research at the Faculty of Architecture and Urban Planning from the Technical University of Cluj-Napoca, Romania. As part of the QDOC/POSDRU Programme she received an eight months funded internship as a visiting scholar at the School of Architecture, University of Liverpool. Her research focuses on exploring mechanisms through which a more comprehensive understanding of the relations between people, architecture and engaging with the fragmented body of the contemporary city can be achieved.

Mapping: An Experimental Methid For Reshaping Fragmented Spatial Relationships

Ruxandra PUŞCAŞU

Abstract

Cities are complex organisms which are not to be understood in a singular way. Their particularities often require the development of specific methods to portray them. Knowing and understanding them means to engage in a deeper, 'symbiotic relationship' with them and with the spaces they provide (Leach 2002).

This research focuses on exploring mechanisms through which a more comprehensive understanding of the relations between people, architecture and engaging with the fragmented body of the contemporary city can be achieved.

In the last two centuries Romanian cities, especially those located outside the Carpathian Mountains, have been confronted with the succession of heterogeneous urban policies and projects. Consequently, their contemporary appearance stands for a superimposition of unfinished / fragmented history strata materialized in layers of physical memories (architectural evidences). The current physiognomy of the cities can be read as a juxtaposition of discontinuous spatial images. These features are visible both at the street level and in the urban fabric which belong to different temporal sequences. The contemporary broken coherency in the dialogue of the urban scenes is not regarded as a stigma on the cities' image; it describes the latter stage in their physiognomy and it can be considered a challenge to be read and understood as such. It appears as a series of spatial unresolved conflicting relations or interactions among city fragments daily experienced by the inhabitants. Therefore, this research is concerned with shaping an alternative, adaptable and interdisciplinary method for investigating the palimpsest image of cities for further regeneration purposes, while relying on new visual mapping techniques. Potentially, it can be beneficial to acknowledge objectively that urban planning cannot completely cover alone the complexity of urban reality and that an incomplete image of the urban environment is frequently released. Accordingly, there is a pressing need to develop effective methodological approaches to allow the exploration of the boundaries between the physical form of the city and its approach as a background for quotidian practices. For that matter, cities are regarded as overlapping sequences of physical and experiential realm and are investigated by looking both at their 'hard' and 'soft' elements (Raban 1974). The unfolding of spatial and temporal distant realities of cities is, therefore, explored. This is expected to overcome spatial and temporal fractures and incongruence in cities' layers. Along with these, heterogeneous portraits of the cities beyond the city are contoured and investigated. The unseen urban forces that shape the experienced city are depicted from inhabitants' discourses regarding aspects of their spatial routes and routines or their daily itineraries. The interest of this investigation focuses on discovering the main visual icons around which the city is tailored at a perceptive level. Ultimately, it aims to investigate whether such a method can become complementary to existing urban regeneration modes of thoughts or strategies.

This paper addresses mapping as an innovative technique to study complex spatial mechanisms as a basis for further architectural interventions. It aims to transform the reading of the urban context into potential architectural strategies consider-

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ing its past aspects while looking towards new developments. Moreover, mapping is a specific technique in the context of a spatial discourse which empowers re-establishing of a position lost once the dependency on representation took place.

This approach is part of a wider research conducted as my doctoral thesis, in which mapping as an experimental method which additionally aims to link architectural research to with design in a practice-oriented setting is addressed. Whereas, the essence of mapping as presented in this paper relies on internalizing urban space by means of spatial practices and on framing an alternative way to represent it which provides a comprehensive insight into its perceptual and experiential characteristics.

This research is conducted in a rich context which provided the opportunity for this theoretic method to be tested. We were confronted with a specific investigation method which allows one to reshape the incomplete perception of the residents upon their city, as Corner (1999) translates the role of mapping.

Keywords: *mapping, spatial mechanisms, research, design*

Ileana APOSTOL

PhD, ETH Zurich, Switzerland

ileanaapostol@gmail.com

Ileana Apostol is a researcher of contemporary spatial production in western cities, with the objective to inform urban design practice and pedagogy. For that she explores comparatively a range of public spaces from neighborhood places to commercial/entertainment centers, and inner-city railway stations, focusing on the relation between social norms and spatial forms. In particular Ileana is interested in urban practices that mediate the boundaries between the public and the private, and allow social relations to transform dynamically. Since her doctoral studies, she proposes a dialectical take of urban research and design pedagogy that is inspired by Henri Lefebvre's theory of spatial production. Ileana holds a Ph.D. in Planning from the University of Southern California, Los Angeles, USA, a Master's of Infrastructure Planning from the University of Stuttgart, Germany, and a Master's in Urbanism and a Bachelor in Architecture from the University of Architecture and Urbanism, Bucharest, Romania.

In support of her research and studies, she received a number of grants and fellowships among which the Marie Curie Fellowship from the European Commission, the Fulbright Fellowship from the US Department of State, and DAAD from the German Government. She is actively engaged with the urban networks INURA (International Network for Urban Research and Action) and AESOP (Association of European Schools of Planning) for which she acted also as assistant of the secretary general (2010-2011). Before undertaking research on a full-time basis, initially in Paris (Project NETHOOD) and currently in Zurich (Projects PORTA, COMPARE), Ileana has taught urban planning and design in the USA at the College of Environmental Design, California State Polytechnic University, Pomona, and at the University of Southern California, Los Angeles, and in Romania at the University of Architecture and Urbanism, Bucharest.

Spatial Designers As Engaged Political Actors

Ileana APOSTOL

Abstract

In this paper I advance three main ideas with respect to the role of spatial designers (i.e. architects, urban designers and spatial planners) in providing contemporary citizens the right to the city. In particular I address the ongoing struggle for the rights to difference, participation and spatial appropriation, in light of the dialectical tension within the practitioner's (re-)quest between repetition and specificity. First, I suggest that an emerging role of spatial designers in local communities may be understood in the mirror of Georg Simmel's social type of the stranger, the potential wanderer, who is at the same time a member of the group and an outsider expected to confront it. Second, to advance an agenda for action I draw on Donald Schon's view of the reflective practitioner, who adjusts the process to engage and react to particular circumstances. Furthermore, as a third strand of thought, I propose the exercise of a mediating role of designers between local knowledge and spatial practice, and the expert knowledge and creativity. This perspective is close to Christopher Alexander's take on the timeless way of building, and may become a part of larger endeavors to structuring frameworks for the transfer of knowledge from practitioners to citizens.

The "right to the city" formulation has been used in the last four decades as a form of resistance to the homogenizing planetary urbanization, and as a ubiquitous "cry" for the democratization of urban space. Within these political actions, regrettably, the voices and implicitly actions of spatial designers have been overlooked more often than not, in spite of them being main actors in the process of spatial production. On the one hand, the dialectical nature of the process of design reasoning might explain this state of affairs, by comprising such struggle, but in an introvert manner. On the other hand, however, it seems there is little awareness within the design professions of practitioners' public role, not only through the spatial materiality of the "work of man" but also through their engagement in the life of the polis.

The contribution of this essay to the Innovation and Experiment Section of the ICAR2015 Conference is to reassert the spatial design professions as activism. Rather than totally depending either on the free market choices or on the public authorities that are, if not passive, mostly reactive to market-driven development processes, design practitioners may act in the city empowered by their very own craft. I argue that such civic presence has the potential to revive the relevance of the spatial design professions as communication vessels for cultural, civil and democratic urbanity.

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Keywords: *right to the city, engagement, participation, spatial appropriation, the stranger.*

Andreea-Livia IVANOVICI

arh., "Ion Mincu" University of Architecture and Urbanism, Romania

avisselenis@yahoo.com

Born in Bucharest in 1986. Co-curator of Fluences International Exhibition and Trans(ap)parencies International Exhibition. Architect, editor of Arhitext magazine, curator of three national architecture exhibitions made by Arhitext Foundation. / She collaborated with Studio Basar and curator Alina Serban in making the Romanian Pavilion for the 53rd edition of Art Biennale in Venice. She also worked togheter with Studio Basar in editing the book: «Evicting the Ghost – Architectures of Survival», which won the prize for the best architectural book at the 2011 Bucharest Architecture Biennale. / As editor she worked in editing numerous issues of Arhitext Magazine and also books published by Arhitext Design Foundation, with the most recent one: «Architecture of Soviet Russia», author: prof. dr. arch. Sorin Vasilescu.

Architecture Of Volatility

Andreea-Livia IVANOVICI

Abstract

Architecture became less and less a matter of personal command and moved faster in the direction of giving shape to public or private investments, targeting an anonymous user, with a standard set of needs. This is a critique that has been addressed to the production of architecture for half a century now. Team X architects, Michel de Certeau, Henry Lefebvre, Deleuze and Guattari are just a few of the one which have raised a series of problems that perpetuate until the present times. Since then the building standards have evolved and multiplied according to rapid transformations in society but they just got more complicated and not closer to the end user's personal needs. This paper analysis the experimental architecture which tries to fight this system with new proclaimed ideas, with interventions mainly in urban public spaces. The first part looks upon a series of interventions which develop, experiment and adapt a series of design tac-

tics by which architecture can manage the (re)appropriation of public space. Their main characteristic is that they «reduce» architecture to a human scale – by using basic means or through their ephemerality and adaptable nature – in order to become meeting places of personal daily lives. Examples include both buildings constructed using new design technology and «bricolage» architecture (2). However these interventions are only temporary and sometimes are even more short-lived than intended due to the local community's lack of experience in managing them. From the architectural perspective these interventions have functionality but not a clearly defined (typological) function and as examples of a bottom-up architecture they try to fight the system from the position of an independent architecture, from outside the system.

At this point I will intentionally skip the second part of the paper and introduce the third part which is an analysis of buildings that address a typological function and develop it towards a more flexible instance. In order to do so the architecture uses new technologies not as a building material but as a catalyst for other ways of understanding and experiencing the space. Such buildings open up to multiple possibilities of usage and understanding by different groups of people. They are nevertheless an answer to a public or private commission (examples of a top-down approach) and thus on the position of bringing a change to the system from inside it and range from temporary pavilions to not temporary museum and other cultural functions, all in the same time very public spaces.

What is the link between this two ways of making architecture I have presented so far? Their connection can actually be found in the second part of the paper, which introduces three concepts: entropy, volatility and antifragility. The aim is to link these three concepts in order to find the similarities and differences in the two previous stated ways of playing contemporary architecture in the Internet age with its induced fast shifting and shallow experimentation of the world.

Entropy is understood as the measure of disorder (in the universe), the higher the entropy the higher the disorder. In physics the notion of entropy change is associated with a physical state change. While the solid state of aggregation is the one that has the lowest degree of entropy, the volatility attribute of an object (or ac-

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tion) brings the higher degree of entropy, of disorder. The entropy-volatility couple is completed by another concept: «antifragility» as defined in the book by Nassim Taleb «Antifragile – Things That Gain from Disorder», published in 2012, in the middle of the global recession. In this book the author shows, how most systems benefited from the turmoil, volatility or chaos demonstrating that facing, in small but frequent doses, the unexpected (improbable), randomness and uncertainty leads to the strengthening of either organic or inorganic systems, making them «antifragile». In his demonstrations, the author uses the term «volatility» to define a degree of lack of order of a system, or a degree of randomness built in its way of functioning and which, on a long term, proves to be beneficial in fighting risks that may threaten the system, giving it the property named by the author with the term «antifragility» (1). I wish to demonstrate that from Nassim Taleb's theory we can transfer into the architectural practice the idea that a certain dose of this volatility has to be considered in contemporary architectural projects because it helps to create flexible, permeable systems, better adapted to the contemporary society. A society in which the shift of information, the speed of reaction using the Internet and online media, the focus on the «here and now» transform with fast speed the way we live, react, feel and think about space, especially the public space. «As our perception of space and time collapses around us in an evolutionary outburst of information, technology and communication systems, it is understandable to feel lost in wonder over a global society changing right before our eyes.» (3).

The architectural experiments create the situation of desire and motivation to re-appropriate public space and open up architecture to people in the sense of taking architecture back at the level of everyday life rather than bringing everyday life into architecture.

The built-in volatility applied into an architectural system brings the much needed occasion for architecture to give a meaning to public spaces adapted to the times of its existence.

The architectural projects which respond to a requested brief and a traditionally-regulated function, with an innovative and flexible approach are a revelation for a sustainable way of using experiment as a design base for architecture, which consequently creates more stainable (and long-term) ways of using public spaces.

Analyzed together in one single paper these three instances create the basis for a process in creating public space architecture which is neither bottom-up nor top-down but story based and thus adaptable / shiftable. A story that the architecture is looking for in order to transform «space and time» into «place and occasion».

Notes:

1. Taleb, Nassim, «Antifragile – Things That Gain from Disorder», Random House Publishing, 2012, p. 63

2. Based on Claude Lévi-Strauss description of bricoleur in his book from 1962 «The Savage Mind»

3. Zweig, Peter Jay, «Time, space, existence»

Keywords: *experimental architecture, public space, entropy, volatility, here and know, there and then, place, occasion.*

Miljana ZEKOVIC

Assistant Professor, Faculty of Technical Sciences, University of Novi Sad, Serbia

zekovic.miljana@gmail.com

Miljana Zeković is an Architect; Assistant Professor at the University of Novi Sad; active member of OISTAT; Educator in the fields of Architectural Design, Ephemeral Architecture and Scene Architecture. In the focus of her research are mutual relations of contemporary architecture and other media, as well as analysis and improvements of the artistic processes, design and education. She has a significant experience as a creative workshops leader on both national/regional (Serbia/BIH) and international level (ISDSWE programme workshop leader in 2012 - Beijing, PR China;WSD2013 Scenofest architecture team leader - Cardiff, UK). Get in touch: zekovic.miljana@gmail.com.

Conquering Space: Experiments In Architectural Education

Miljana ZEKOVIĆ, Dragana KONSTANTINOVIĆ, Višnja ŽUGIĆ

Abstract

Approximately ten years ago, moved by two major issues - constant decline in quality of our architecture students' works on one side, and the urge for change in conventional educational system on the other - our team of professors and assistants gathered around the architectural design studio made a substantial effort in radical rethinking of the education that we provided - its aims, its purposes and its tangible and intangible outcomes. As a result of a debate on potentially better architectural design education we made a theoretically strict platform which supported Process against Artefact (Product). The main idea was to instruct students to learn to think about space rather than to learn to formally design it, to put an accent on spatial concept development and design process itself. Leaning onto promising architectural manifestos of that moment, we embraced the idea of the essential need of finding 'architecture beyond buildings' (Betsky) through experiments on all potentially possible levels and innovations rooted in the wider multidisciplinary field.

This paper aims at discussing three different levels of change in understanding space, spatial concept and spatial design process applied directly through Architectural Design and Ephemeral Architecture courses at the 3rd year of the BA programme in Architecture on our Department. These three levels of change are presented through three different but mutually supportive and complementary methods, applied in architectural design education in several projects featured in the aforementioned courses. The first one on the list is the Embodied Narrative. Taken directly from Tschumi, this method made students develop their imaginative skills and creatively respond to request of catching the ambience of the written text, followed by design of physical spatial models (maquettes). During 2012 and 2014 students investigated possibilities of this method in two projects based on Thomas Mann's 'Tonio Kröger' and Lewis Carroll's 'Alice's Adventures in Wonderland', resulting in translation of imaginary spaces of the story to more realistic spatial frames. The second level of change was realised through a two-year project (2012-2013) 'Spatial Memory: Deleyering' realised with students of the Ephemeral Architecture course. By investigating proposed questions - Can space remember? What is the influence of the memory layers on genius loci? Can we 'delayer' this memory and by which means? Can both real and imagined stories influence this phenomenon of spatial memory? - students discovered new spatial potentials and acquired advanced system of thinking about space. The third method came from the 'fundamentally performative nature of architecture' (Kunze) and the theoretical platform of 'beyond' - spatial design projects clearly glorifying process vs. artefact will be discussed through two projects created and proposed as answers to the Venice Biennale of Architecture calls for participating countries in 2012 and 2014.

In conclusion this paper intends to show the results of applied methods and strategies in architectural design process and their significance in students' further education. Arguing that it is not about the 'buildability' of design, but about the true conquering of the idea of belonging to space, we propose further radical rethinking of architectural education.

Keywords: *architectural design, spatial design, architectural experiment, architectural education*

Melania DULĂMEA

PhD, lector, "Ion Mincu" University of Architecture and Urbanism, Romania

melaniadulamea@yahoo.com

PhD, University of Architecture and Urban Planning "Ion Mincu", Bucharest, 2011
Dissertation: Cognitive Architecture - an approach to architecture from the perspective of neuroscience
Senior Lecturer, The Basics of Architectural Design Department, University of Architecture and Urban Planning "Ion Mincu", Bucharest
Member of the Order of Romanian Architects, Bucharest
Member of The Romanian Register of Urban Planners, Bucharest

Innovation - Creativity – Design – Education

Melania DULĂMEA

Abstract

The speed of change characteristic of the modern world requires new skills for dealing with constant changing problems. Education must adapt to this new conditions in order to generate professionals capable of facing these challenges. "Unable to define what we need to know, we have begun to focus on how we will need to know, on the flexibility and openness which characterises creative thinking. Creativity is now seen to be the wellspring of human adaptability and social development." (Dineen, R., & Collins, E. Killing the goose: conflicts between pedagogy and politics in the delivery of a creative education International Journal of Art & Design Education, 24(1), 43-52)

Creativity is commonly defined as the introduction of something innovatively new and positive for society that goes beyond the familiar and accepted. The key to the positive feature is the social aspect, namely recognition by others and adoption as the new status quo. The study of creativity is characterized by a variety of key questions, such as the nature of the creative process, whether there are multiple types of creativity, the relationship between high levels of creativity and everyday creativity, and the neural basis of creativity. Across the design disciplines there is no shared understanding about creative processes and, in particular, how they apply to learning and teaching experiences. A distinction must be made between originality and creativity in design. Being creative in design is not purely or even necessarily a matter of being original.

The aim of this paper is to highlight key principles of promoting creativity in architectural design education and to underline a shift in thinking and action. The methodological path goes from theory to practice. The study creates a descriptive reading through teaching experiences and practices based on the author's practices and observations in the 2nd and 3rd years design studio instruction. For this purpose the research will pursue the following topics:

- investigate theoretically the concept of creativity and its redefinition according to recent neuro-psychological researches
- investigate the design process in practice and education and highlight the methods of fostering creativity in this context
- research the effects and illustrate, elaborating on teaching practices for the 2nd and 3rd years of study.

The research proves a shift in the understanding of creativity not only as a gift but as potential that can be cultivated in every individual. This requires a student-centered approach, in opposition to the traditional teacher-centred approach to learning. The student-centred approach values problem-based learning and student's capacity to find a personal route towards the answer. It starts from the observation that in design it doesn't exist a single correct answer and encourages investigation and experimentation, interdisciplinarity, knowledge transfer, and research by design. Another key point is a good balance of objectivity and subjectivity in all the stages of the design process, a combination between rational and imaginative thinking that builds the core of creativity. Critical thinking helps develop technical skills for future architects to manage and predict problems in a constantly changing environment and find solutions that respect the natural and social condition they act upon.

Keywords: *creativity design education*

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Mihaela PALADE

Prof., University of Bucharest, Faculty of Orthodox Theology, Romania

palademih@yahoo.com

Mihaela Palade graduated from „Ion Mincu" University of Architecture and Urbanism in Bucharest (1984) and the Faculty of Orthodox Theology, the University of Bucharest (1994). She is currently a professor at the Faculty of Orthodox Theology, Department of Practical Theology, Systematic Theology and Sacred Art. Her research activity has produced six single-author books, 57 studies and numerous articles, all with interdisciplinary contents (Christian art and architecture, iconography, theological aesthetics) and contributions to national and international symposia and congresses.

The Steeples Of Orthodox Churches: Between Authentic And Cosmetic

Mihaela PALADE

Abstract

In the architectural structure of Orthodox churches, the steeples are more than a mere eye-catching element, a vertical counterpart for the building's body mass or a display of engineering prowess ⬜ although all these find their role and justification in the pyramidal volumetry created by the presence of steeples. These completely unique architecture elements define the spiritual identity of the respective edifice, and to a no lesser extent, its aesthetic one.

Steeples: their significance and importance.

Spiritually, steeples symbolize matter reaching towards God in prayer, the point where earth touches heaven by reaching ever higher in an imaginary, but no less real dimension. Aesthetically, these architectural elements constitute the vertical dominant feature, a physical counterpart of the prayer that ascends like incense, rising from earth to heaven.

A church deprived of steeple/steeples, and thus reduced only to the buildings' mass, elegantly or even nonchalantly occupying a land plot allotted through the benevolence of a donor and delimited territorially by cadastral maps and land management documentation, is not very impressive. It is unable to transcend these prosaic de-limitations. By contrast, a church surmounted by a more or less elongated steeple, has overcome such limitations, and has launched towards heaven its messenger which, without denying the static horizontality of the earth, introduces a new dimension. The vertical direction provides the dynamic counterpart necessary to strike a balance with the horizontality of the earth that provides the materials for construction, and from which it rises like a tree reaching for the light.

The steeples are not a mere addition to the building mass but naturally belong to it, as they share the same aesthetic material. Their volumetry, profile, wall face, as well as other characteristic details are natural part of the aesthetic ensemble of the worship place as a whole.

Unfortunately, earthquakes, fires or other disasters (with either natural or anthropic causes) have led to the loss of original steeples, and thus new vertical structures became necessary.

A brief presentation of various situations.

Churches which lost their steeples because of earthquakes or other calamities, and had them subsequently rebuilt - make up the most important category, comprising almost all churches, given the frequency and force of earthquakes afflicting the Romanian Principalities. Those churches deprived of steeples, rendered in various drawings dating from the respective times, provide an extremely eloquent image of a maimed body with a severed head. Equally ill-looking were, however, the reconstructions of the fallen steeples replaced with half-timber or wooden ones, covered in tin sheets (Curtea veche, Snagov, Mihai Vodă, Radu-Vodă, Plumbuita, Krețulescu, Antim, Plătărești, Precista Galați).

Churches with altered roofing - The aesthetic profile of churches is defined mainly

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by the finishes, that is, the shape of steeple roofing, which underwent many diverse alterations throughout the centuries, depending on the times' fashion, the taste of those who commissioned or built them, or on less fathomable whims. Most changes occurred during the period of the Baroque influences that came in from all directions, so that many church steeples were "crowned" by a bulb-shaped roofing, some with extremely strange silhouettes (Secu, Neamț, Bistrița, Galata, Probota). Other alterations were operated in each of the two major choices for roofing (on the roof framework or the extrados).

The relation with the church roofing. In the case of Moldavian churches, one of the basic principles, an extremely artistic one, was that of the fragmented roof, each church part receiving a separate roofing and thus leaving the steeple foot free, which allowed the onlooker to perceive all its specific complexity. Subsequent alterations, however, covered the whole church with a single roofing, which hid the lower part of the steeple and greatly diminished its impressiveness (Pătrăuți, Moldovița, Voroneț, Sucevița).

Churches whose steeples were never rebuilt. At times – admittedly, quite rarely – the steeples torn down by earthquakes were never rebuilt (Biserica Tăierea Capului Sfântului Ioan / The Church of the Beheading of Saint John the Baptist, of Vaslui, Biserica Sfântul Gheorghe Nou / The Church of Saint George the New, of Bucharest, where the restoration undertaken in mid-1970 did not include the steeples, supposed to have been above the porch).

Steeples added later on to monuments initially built without them. There were also some rare situations, when out of personal considerations, new steeples were added over churches originally designed without them, which has led to bizarre and odd silhouettes (Războieni, Dobrovăț).

Restoration, preservation, challenges.

To a restorer architect, churches deprived of their steeples or those to which stylistically inadequate steeples have been added, pose constant challenges in remedying such lacunae that occurred in time and affect the place of worship. Some of the solutions often entailed new restorations, in a fascinating and enigmatic endeavour to retrace the origins.

The present study points out only a few of the transformations undergone by church steeples that originally employed an aesthetic language peculiar to their epoch or the respective churches, later on underwent some infelicitous transformations, and finally succeeded in regaining a more or less authentic appearance, which has caused the entire architectural ecclesial structure to oscillate between authentic and cosmetic.

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Angelica STAN

PhD Arch Msc urb, "Ion Mincu" University of Architecture and Urbanism, Romania

angelicastan@yahoo.com

PhD Arch. Angelica STAN is currently associate professor at "Ion Mincu" University of Architecture and Urbanism - The Faculty of Urbanism- Urban and Landscape Planning Department. After graduating in Architecture in 1995 at UAUIM, she attended the International Master Program in Rouen, France, at the Institut Européen d'Architecture et d'Amenagement, in Urban Design and Regional Planning profile. During 1996-1997 she completed a internship in Ireland, in an architecture, urban &landscape planning office. In 2006 she obtained the doctoral title with a PhD thesis (appreciated with Magna cum Laude), analyzing the specificity of the periphery's landscape. She has published 3 books in urbanism and landscape theory, 3 volumes of poetry and over 15 articles in recognized journals. This year she won the ECLAS (European Council Landscape Architecture Schools) "Outstanding Educator Award" for the teaching activity within the Urban and Landscape Planning Department.

Crisis, Poetry, Process, Architecture

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Angelica STAN

</div>

Abstract

Starting from the idea that the crisis is, beyond failure, a benefic time for re-thinking, in this article we try to present a relationship between the multiple condition of crisis and the poetry meaning that any architecture wishes to create. As long as the crisis philosophy of this century seems to be related to the need to get out of the previous paradigm of surplus and excess, architecture cannot be anymore judged in terms of "simple" object, but rather as a process that gives rise objects that enables new a types of consumers and uses. As long as are seeking solutions for a new intelligence of architecture, as place of a good (sustainable) balance between resource and use, between materials and language,

between scale and effort, so on, we feel entitled to explore the field of poetic expressiveness in architecture, less obvious and less studied, however.

The place of poetry in this process is essential, situated right at the root of the conceptual thinking, as power to summarize an idea in a precise and essentialized form of language, without unnecessary admixtures. If poetry is this ability to give words maximum strength of expressiveness into a minimal written form, in the spirit of economy of language and accuracy of "material" used, so the architecture (always, but in times of crisis, the more) is just the same process of conceptual sublimation in order to address a future world that will certainly refuse the waste, the excess and the ostentation.

On the other hand, in today cities, poetry is most of all, on the streets, squares, parks and gardens, at the disbanded outskirts, on the highway maybe... anywhere but less than in architecture itself. (Of course, with notable exceptions of great architects and poets!). But for the most part of "architecture with no famous author", something is lost on the way from the computer, to the built and used building, from the initial thinking to final expression and reception by people. Or maybe something has changed in the poetry of urban life itself, so that the interior space cannot find the correct capacity of expression, perhaps by over-bidding of its components, or by a "non-adherence" to an inhabitant which is always else, always kept in an outgoing connection. Overcrowding, congestion, excessive fill, excessive communication give rise to a need with opposite sign: the silence, the gap, the pause, the isolation. The break between city "verses", the break in the full-empty continuum, top-down continuum, bottom-top, inside-out continuum is probably the breathing space of poetry itself, which must be re-searched, re-articulated, re-worded. It s already shown that the ambiguity is a beneficial function of both city and architecture. The poetry of these very actual processes includes the architectural object that not only occupies a physical urban space, but have to make sense and to resonate into a much bigger system of multiple meanings. The architecture should be part of this "poetic process" through which the city makes visible its meanings, by deliberate (created) ambiguity, or by unexpected uses, or by a controlled "weight" of its ambiances, or by rhythm and musicality at every step... so, all like in poetry.

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The great lesson on architecture and city poetry was given maybe with out to light of Heidegger's famous verse Holderlin - "the man lives in poetic way" - or perhaps rooted in the book of John Ruskin, 1923 (The Poetry of Architecture), but things did not stop there. From Vincent Scully, Louis I. Kahn, Charles Moore, to FL Wright, Mies van de Rohe, to Peter Zumthor, Rem Koolhaas, Libeskind, Frank Gehry and other famous and less famous architects, have contributed to shaping this field of poetry as a process underlying the architecture creation process. But nowadays, this issue should be viewed differently, the poetry needs to be found beyond the architectural object itself, beyond its ephemeral glory.

The poetry of architecture is approached here as a process that fits into the wider city's metabolism, in the great epic poem of urbanity. In the designing process of urban space, the creativity is challenged, in the current period, not just by the usual constraints of the crisis and of its true experience of many abandoned, un-finished buildings or unbuilt projects, but also from the newest needs of people, due to the new mobility and inter-connectivity, and from a different perception of urban space.

For instance, how this quasi-ubiquitous and permanent network communication interact with the architecture message and language? Is it a matter of harmony of languages which currently jams? Is it a matter of translating our actual language habits in an appropriate built form? Moreover, today the tool called "poetry" is not anymore just in the hands of "certified" poets; it tends to be handled by anyone that feels he can say something about the reality and truth of the present. He is in possession of the architect, but at the same time it is spread out in the look, the steps, the body and all the senses of one who uses any architecture.

Keywords: *language, innovation, experiment, technology, process*

Beatrice Gabriela JÖGER

Assoc.Prof, Arch, PhD, "Ion Mincu" University of Architecture and Urbanism, Romania

beatrice_g.joger@ymail.com

Beatrice-Gabriela Jöger (b.1968) is a Romanian Ph.D.Architect, member of OAR, UAR, ICOMOS, DMI-USA. Works at "Ion Mincu" University of Architecture and Urbanism Bucharest. She obtained her Ph.D. title in 2006 with the thesis "Textile Materials in Arredamento" and her M.Arch title in 1993, both at UAUIM Bucharest. She is Associate Professor at the Department of Interior Design and Design at UAUIM and Vice-Rector for Image and International Co-operation. She was Director of the Interior Design and Design Department in 2011-2012. Her international relations experience dates 15 years back and she was the administrator for the IAESTE Romania between 2004-2008. Invited as Visiting professor at architecture schools: ETSA Barcelona, ETSA Madrid, ENSA Belleville Paris, FA Sheffield, UNAM-FA Ciudad de Mexico, TU Berlin, and lecturer for conferences in Spain, Mexico, Turkey, Jordan, Romania. She developed two independent research stages, one for the PhD thesis in Madrid, Spain (2001-2002) and another in Mexico (2011) on Mexican architecture, both on governmental grants by respective countries. Her professional activity includes: architecture, interior and graphic design, editor in chief, exhibitions organizing and photography. Work experience as architect at companies in France and Romania (with foreign and domestic companies). She is a founder member and was President of Romanian Design Foundation 1999-2003. She is the winner of numerous prizes (France, Romania), 2 authored books (nomination at the Bucharest Architectural Annual 2008 Prizes), 7 co-authored books and more than 65 articles in architecture journals.
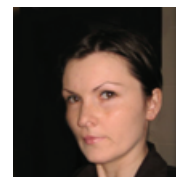
Marilena NEGULESCU

Teaching Assistant, Int. Arch, PhD, "Ion Mincu" University of Architecture and Urbanism, Romania

marilenanegulescu@yahoo.com

Marilena NEGULESCU (b.1977) is a Romanian Ph.D. Interior Architect. She obtained her Ph.D. title in 2014 with the thesis "Housing fit-out for adult visually disabled Persons" and her M.Int.Arch title in 2001 with Bene Merenti Honours, both at UAUIM Bucharest. She also followed several PG trainings in QS Management, 2011 ISO Standards and Market development, as well as in Pedagogy. She is currently working as Teaching Assis-

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tant at the Department of Interior Design and Design at UAUIM and her professional activity includes interior design projects and graphic design. She was a speaker at national architecture conferences and participated as a student in several architectural workshops. Her artistic works were presented in collective art exhibitions in Galati and Bucharest and she won the 2nd prize at the 2003 Christmas Objects UAUIM Competition.

Textile Materials For The Future (Accessible) Architecture

Beatrice Gabriela JÖGER, Marilena NEGULESCU

Abstract

Textiles are the category of materials with the highest weight in domestic interior design and an important one in public interiors. They were originally used as clothing and their use in interior decoration is merely an extrapolation towards the materialization of the envelope of the vital space, from the outer cover of the individual to the inner cover of the interior of the house. In the Romanian traditional culture there is an expression referring to the interior design with textiles: "the house is dressed-up". Textiles provides warmth to the space - literally and figuratively -, creates internal dynamic atmosphere and are easy to appropriate.

Unfortunately in most cases their use is often made empirically, the architecture projects not dealing with this side of the project and the interior architecture projects still represent, at least for the private realm, a very small percentage of the interior design actually realized.

The environment in which we live can be modified and can be improved and the positive change, the wellbeing resulting from a suitable adaptation of interior space for the user, can be reflected in its daily life.

Textiles are phono-absorbing, organic, bio-degradable and very flexible in use, and also in volume, and can take almost any form. They can unify or delimit spaces or suggest tresholds between them. The wider margin of the textile char-

acteristics and subtle levels of transparency allow their use for unification of the interior atmosphere.

One of the difficulties which arise in front of architects-creators is that they are only the users of fabric (as in the other building materials, in fact) but in this case, given the proximity of the fabric's omnipresence in human life, the desire to intervene of the architect/ designer in creating the material itself is different, with some exceptions.

The perception of the surrounding space is done through colours, forms and volumes, and although there are certain patterns that are created under similar responses to colour, for example, however the individual structure and experience and the combining effects of the factors greatly influences the perception, so that one can not talk about definite models of response. One may only talk of categories of response, also shaped and determined by the social category, the cultural background and the status demonstration.

However, the architect may create disabilities through the designed space, by an unfortunate choice of interior finishes. Accessing the space through the full sensorial capacity is an ongoing challenge, from which may result more exciting spaces for interaction between humans and living space, interesting places to discover and map for all users.

For the visually impared or disabled persons, for example, the tactile dimension of the space and objects is of utmost importance in their perception.

Textile materials are present in the inner space through several features: color, volume, texture, even smell. It must be said that the physical and psychological effects of these features have already been studied and theorized separately (some, such as the color, for hundreds of years) or in terms of textile engineering and textiles for clothing but there is not yet a specialized complex study dedicated to interior textiles.

The share of textiles in interiors, their physical properties and their psychological effects recommends them as the ideal material for the easy adaptation of a built space to the specific needs of different architectural programs. Unfortunately,

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outside art-directing, where this material is fully utilized, the conscious, rational and programmatic inclusion in the interior architecture projects is performed only sporadically, and in our country is mostly lagging in the empirical/the classic use.

The study of the impact, the physical and psychological effects of the textiles on users of interior spaces could lead to a series of recommendations on how the interior design with textiles can be realized both for the public and the private sector. Recommendations would aim at: (a) improving the quality of space in general and implicitly, the quality of life regardless of the user's physical condition and (b) adapting spaces for people with physical and mental disabilities, using as main interior finishing the textile materials. Designing and building interiors in accordance with the principles of universal design (1. Equitable Use, 2. Flexibility in Use, 3.Simple and Intuitive Use, 4.Perceptible Information, 5. Tolerance for Error, 6.Low Physical Effort, 7.Size and Space for Approach and Use), the idea that what is good for people with disabilities is good for everyone is the paradigm of contemporary and future architecture and design. Moreover, given the global aging and hence the increased number of people with various disabilities, should be developed possibilities for general design and interior decorating of spaces, consistent with the principles of universal design.

Designing interiors must go beyond mere accessibility regulations. The accessibility should not be formal, should not exist only at the legislative level, but it should be a problem of the whole society, given that any of us can be for a shorter or longer period of time a person disabled by the environment and the society (as disability is defined in Europe). Accessibility should materialize through real examples, starting from small to a larger scale, from the interior as being the closest approach and with which one can inter-act the easiest way and continuing with the architecture of buildings and the urban space.

Keywords: *textiles, architecture, interior, universal design*

Sidonia TEODORESCU

Lecturer PhD. Arch. , "Spiru Haret" University, Faculty of Architecture, Romania

sidonia.teodorescu@gmail.com

PhD. University Lecturer Architect, "Spiru Haret" University, Faculty of Architecture, Bucharest - Synthesis of Architecture
Architects' Chamber of Romania - certified architect (since 2001)
Architects' Union of Romania)(since 1995); member of the Culture's Comission of the Third District of Bucharest of UAR.
The Romanian Committee for the History and Philosophy of Science and Technique) (CRIFST) of the Romanian Academy – certified member since 2013
Graduate of PhD. Programme at "Ion Mincu" Faculty of Architecture, Bucharest - Author of the thesis "The Architect Ion D. Berindey, monographic study", scientific teacher: Prof. PhD. Arch. Nicolae Lascu – 2013
2005 -2007- Romanian-French Master "Integrated Urban Development" - master degree.
1993 - Graduation in Architecture - "Ion Mincu" Faculty of Architecture and Urban Planning, Bucharest; 1992 - C.I.E.S. Scholarship at "La Villette" Faculty of Architecture, Paris
Author of "Mari arhitecti bucuresteni. Ion D. Berindey", ISSN 978-973-645-642-8;Vremea Publishing House, 2014, forward by acad. Dan Berindei.
Coauthor of "Dicţionar al arhitecturii româneşti moderne (sec. XIX, XX, XXI)", vol. I (literele A-C) and vol. II (Arhitecti; literele D-H) - cultural project financed by UAR
Editor of the monthly online review "Bucureştiul meu drag", ISSN 2248-3292.
Editor of the printed annual review "Bucureştiul meu drag. Memoria vizuală a oraşului", ISSN 2285-925X; ISSN-L 2248-3292. (OAR support).
Organizer of workshops, student practices, exhibitions, co organizer of USH Days of Architecture, speaker in conference at the Municipality Museum of Bucharest in 2014
Scientific disertations and articles in "Arhitectura", "Research & Design. Summaries of Doctoral Theses", "Noema", "Studii si comunicari", "Analele USH", "Monumentul. Traditie si viitor", "Bucurestiul meu drag", the guide of UAR (TEXTE ASUPRA TEMEI) - the 14-th edition of International Exhibition of Architecture – Venice Biennial Exhibition 2014, "Buna dimineata, Bucuresti!", "Opinia nationala", "Expres Magazin" etc.
Architectural Office BIA Elena-Sidonia Teodorescu since 2006

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Zollverein, A Model Of Conversion

Sidonia TEODORESCU

Abstract

Despite extensive preservation efforts in recent decades, many historic industrial sites continue to be lost to fire, vandalism, neglect and demolition.

Unfortunately, in Oradea, the former Jakab Weinberger and son Mill founded in 1884 has been demolished in February 2014.

Before 1989 the former 23 August (Malaxa) industrial platform had 20.000 workers. Nowadays it has only 400. The architect Horia Creangă is the author of the Administrative wing and of the Malaxa Plant's Laboratory, iconic modernist buildings that belong to one of the most significant industrial sites in the industrial Romanian landscape, which should be preserved, by creating an industrial cultural site, with a museum as a focal point. The reconversion of Hesper factory (the former E. Wolff industries) is an example of how production spaces can be transformed into creative industries. In Bucharest, another example of reconversion of an industrial building is The Ark (1896, architect Giulio Magni) – nowadays, the building has become a focal point on the street for both the outside and neighborhood residents, being used by creative industries and has regenerated the nearby area, where cultural events are held – for example the Bragadiru Palace (the former Bragadiru beer factory) is now a scene for cultural events. The Filaret 1869 railway station – the first one in Bucharest – is still waiting for investors, an open-air museum for railway history being a function discussed even since the inter-war period!

The Assan Mill – the first steam mill in Romania - was partially demolished in 2005, damaged by fire in 2008 and suffered a roof and a wall collapse in 2012, turning the building into a phantom property. Students at both "Ion Mincu" and "Spiru Haret" Universities proposed projects of reconversion of the mill (one project proposes a Faculty of Restoration and Research Centre). Another project - Assan Eco-Mill – proposes the revitalizing of Lizeanu-Obor-Colentina area.

The Romanian Pavilion at 14th International Architecture Exhibition La Biennale di Venezia tried to bring industrial architecture as generator of modernity into discussion. Once industrial sites were closed down, the remaining locations became modern urban ruins, devoid of content, bare of utility, creating an outer landscape, shattering and desolate. They became non-places and modern ruins within our own modernity. The question "what can we do with these non-places?", these heterotopias, remains.

Another example of a water tower reconversion - Make a Point – located in Pantelimon neighbourhood - organizes exhibitions, shows, movie projections, workshops and remains a space dedicated to exhibiting works and messages by contemporary artists.

The Water Factory in Suceava transformed into a Centre for Architecture, Urban Culture and Landscape. The project won the prize in the restoration of built heritage section of the Romanian Architecture Biennale in 2014.

This paper wants to bring into focus Zollverein, a good example which had a strategic plan of land-use developed during a ten-year period, in close collaboration with heritage conservation specialists.

It is important to know and understand the values and principles for the Conservation of Industrial Heritage Sites, Structures, Areas and Landscapes (ICOMOS-TIC-CIH, 2011) and architects should learn about succesfull conversions, as Zollverein most certainly is.

In 2001, the Zollverein Coal Mine Industrial Complex from Ruhr area (Essen, Germania) was designed a UNESCO World Heritage Site. The master plan made by OMA respects the identity of the place and the conversions of old industrial buildings led by the local architectural office Böll&Krabel and by Foster&Partners (Red Dot Museum), SANAA (The Zollverein School of Design) or OMA (Ruhr Museum) offer us a great lesson of modern architecture.

The Zollverein Coal Mine Industrial Complex is nowadays one of the most important industrial cultural monuments in Europe. Located near Essen, in the Ruhr region, this complex of industrial buildings is a remarkable example of application

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of modernist architecture design concepts to an entire industrial context.

Zollverein was a major industrial architecture site in the Ruhr area in the 19th and 20th centuries, the place where thousands of miners and their families lived and worked. The area developed rapidly in the early 20th century to become the third largest conurbation in Europe after London and Paris.

In 1980, the Zollverein coal mines started to shot down, followed by the closure of the steel industry and the coal refinery buildings. The last day of work was December 23rd 1986.

The 100 hectares of land and the industrial complex were bought by the German government from their former owners, Gelsenkirchen Bergwerks-AG (GBAG), and were declared in December 2001, UNESCO World Heritage Site.

Office of Metropolitan Architecture (OMA) was invited to draft a master plan which had been developed in a ten-year period, in collaboration with heritage conservation specialists. OMA's master plan consists of a band around the former historic site, containing the necessary new programs and functions.

The region changed from a gray industrial area into a modern culture metropolis. In accordance with its motto, "Preservation through conversion", the coking plant has achieved a great since its decommissioning in 1993. Former industry plants are now home to arts and culture, entertainment, sport and relaxation.

In 2010, the city of Essen and the whole Ruhr Metropolis have been designated to become European Capital of Culture.

The Coal Mine Industrial Complex was designed in 1928-1932 in the style of the New Functionalism, inspired by the Bauhaus tradition. Its main building, Zeche Zollverein 12, closed down in 1986 and was transformed in a Ruhr Museum by OMA (Rem Koolhaas) and Böll&Krabel. The museum opened in 2008.

The Red Dot Design Museum is located since 1997, in the former boiler house of the Zollverein Colliery in Essen. The conversion was designed by Norman Foster and is receiving approximate 120.000 visitors per year.

SANAA started to design in 2003 the first new building on the historical coal-

mining Zollverein site, the Zollverein School of Management and Design, in collaboration with the local architects Böll & Krabel.

Zollverein Coal Mine Industrial Complex has become a key element of the identity of the Ruhr Area and an example of convertion and of modern architecture.

Keywords: *Conversion, Essen, industrial heritage, OMA, Norman Foster, SANAA*

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Oana Doina TRUŞCĂ

PhD, "Ion Mincu" University of Architecture and Urbanism, Romania

otrusca@yahoo.com

Oana Trusca is a young architect by the Universidad Europea de Madrid and has completed the PhD thesis at the University of Architecture and Urbanism "Ion Mincu" where she works as an Assistant Professor since 2009. Her research interest is focused on sustainable architecture, intelligent envelopes and artificial lighning.

Intelligent Glass Façade

Oana Doina TRUŞCĂ

Abstract

The internationally nowadays trend in the field of sustainable architecture is to achieve intelligent envelopes able to provide a low, no regenerating energy consumption to the buildings. In this context, the façade described in the present article, proposes to achieve energy efficient glass envelope able to control the interior environment of the edifice.

The article presents the author's personal proposal for an intelligent system, made of metallic elements able to develop complex functions that can be attached to various types of glass envelopes, in order to decrease the energy consumption used to provide thermal comfort to the users of the building.

The novelty and innovative element of this proposal is the development of an envelope adaptable to user requirements and environmental conditions. This envelope acts as an active, interactive epidermis that exchanges information and matter to the outside. The intelligent system for the glass façades is physically able to react to climate change in order to improve the energy performance of the building and the thermal comfort of its internal space.

The assembly, made of intelligent components proposed for use in various types of glass façades, is made of intelligent tubes realized by perforated aluminum sheet fixed perpendicular to the surface of the building envelope. The system made of metallic tubes was designed to be attached to the curtain glass façades or to the double skin ones. Depending on the solution elected by the architect, these metallic elements transform the envelope into a specialized interior-exterior interface, aiming to ensure the indoor thermal comfort with a minimum consumption of conventional energy and to provide a new interesting exterior image for the building.

In order to improve the energy behavior of the building and to offer it an interesting view during both night and day, the tubes perform several functions: outdoor artificial lighting, natural ventilation, energy autonomy, solar control system and air filter. These functions are realized with the energy captured by the tubes along the day time. The goal of the mentioned functions is to significantly decrease the energy consumption of the building regarding: the exterior lighting of the edifice, the natural ventilation of the indoor space and also the heating and cooling of the interior environment of the edifice through the matter exchange – air – realized to the exterior.

The size, density and layout of the tubes on the glass façade are determined by: the cardinal orientation of the façades and the climatic conditions of the site where the building is placed, in order to create shaded glass façades during the worm season (the entrance of the solar radiation is blocked in order to avoid the overheating of the building) and to allow the entrance of solar radiation inside the edifice along the cold season (passive heating).

Each metallic tube fixed on the façade consists of: solar panels, battery, electronic control module, microprocessor, RGB LED, temperature sensor, radio-control receiver, antibacterial filter, micro-server, an ensemble of two diaphragms set in motion by the micro-server in order to allow or to block the air exchange between the interior and the exterior environment.

For the control of the inside environment, the building must be equipped with a centralized control system (a computer connected to a weather station), tempera-

ture, humidity and pressure sensors placed in all the regions of the building (a building region concerns all the enclosed spaces, separated between them and with direct contact to the exterior environment). The tubes attached to the glass façade are grouped by regions and the microprocessors of the tubes placed in the same region receive the same code. Through the radio receiver and the codes of the tubes, depending on weather conditions, the centralized control system of the building can transmit a signal to the tubes so that they allow or stop the air transfer between the exterior and interior of the building; this is done in order to provide thermal comfort inside the edifice with a minimum consumption of conventional energy.

The reaction of the glass façade to climate variations transforms the façade into an adapting envelope to a dynamic environment.

Due to the mediator part between the inside and the outside space of a building and also because of the potential to significantly decrease the energy consumption of the buildings, the façades, both now and in the future will be a key element of the sustainable design.

Keywords: *Intelligent façade, Sustainable architecture, Intelligent interface*

Robert NEGRU

Lecturer, PhD, "Ion Mincu" University of Architecture and Urbanism, Romania

robert_negru@yahoo.com

Architect since 1996.
Postgraduate School - Marketing in Architecture, "Ion Mincu" University of Architecture and Urbanism - Bucharest, Romania.
Being in Architecture Education field since 2000.
Now PhD Lecturer at "Ion Mincu" University of Architecture and Urbanism - Bucharest, Romania.
Over 100 architectural projects designed and largely completed till now.
Architectural studies and articles published in specialized publications.
Member of the Order of Architects in Romania.

Anthropology And Psychology Elements In Housing Customization

Robert NEGRU

Abstract

Architecture is the materializing in built shape of the spirit of an era. Spirit is not an abstract notion as it might seem at first glance, but refers to a set of concepts and events shared by a group or a community. If vernacular architecture, "creator" is a man from a community. All that he creates not only reflect the needs and interests of its biological, social or strictly utilitarian but also the symbolic. Culture from which man comes it marks "genetically" and undiluted his artifacts. Scholarly architectural designer is that in wich the architect comes as an intermediate link between constructed and user, between the architecture object and human needs. When the project does not meet the specific lifestyle of the latter, in this fact is also the insinuation of architecture failure. In the past, when

it was "designed", architecture was made by architects usually come from the community. In particular, the homes were designed by architects who manifested in a familiar cultural environment. They knew the culture in which they worked, often sensing their partner requests. Today, in the context of globalization and free movement, architects design anywhere, beyond the community of origin, passing both regional borders within the same state and territorial boundaries. The question is how to design for a particular culture, so the result to "match", to meet the culturally specific. Architect must possess an broad intellectual, professional and cultural baggage. Assuming succeeded well beyond the first two requirements, remains in question cultural criterion – can an architect know the smallest details of all cultures that exist and occur anywhere, at any time he will be asked to act? Certainly not, and then to design for another culture is an act with a high dose of subjectivity – in such a situation may be a tension between the proposed architecture and cultural values of the user, which will redound both the perception and understanding of the final product and its use.

Thus, the cultural aspect is very important, and when it overlaps over and the recipient's personality – his psychological traits, thinking and his behavior – things start to get more complex.

The objective of the study is to improve the production quality of architecture in its relationship with the user. As seen from the title, theme relates to housing and its customization. Since housing requires home, customization inevitably addresses the latter. First of all, it must be said that the paper aims to highlight the need for man understanding (the future customer and user of the architecture product), both in terms of its cultural and psychological perspective. This attitude should be seen not as a burden in design, but as a natural approach fated to facilitate achieving the most satisfactory and adequate housing, the culturally specific, on the one hand, appropriate user personality on the other hand – that is the primary goal of the research. Subsidiarily, a more rapid understanding of user needs, would means enhanced design efficiency for the architect, but also a substantial time savings by reducing the time allocated to usual discussion with the customer.

Working method is to research those fields of anthropology and psychology whom,

by their studies and available literature, are likely to lead to the identification of the essential information about the elements that influence housing and home. From the anthropological point of view, we are interested to discover the factors that influence the choice of mode of living, and on the shape of the house, the literature being able to help us in this goal. In the second perspective, the psychological, we aim to identify the most appropriate tools through which we can approach the personality of the user. At the same time, we are interested to capture other aspects of concrete man, its possible particular qualities which, on one hand, could have an impact on housing, and on the other side of the house architecture. In a multidisciplinary approach throughout the paper we put ourselves in the intersection areas of anthropology and psychology with architecture, those seen as relevant and useful for our goals.

The multidisciplinary character emerges clearly in the final chapter that includes suggested tools for analysis, debate and, why not, for using. Thus, the studies presented in the paper are placed on the various interdisciplinary concerns line – whether using Space Syntax and J-Graph as basic tools, or psychometric instrument Myers-Briggs Type Indicator (MBTI) and Kiersey Temperament Sorter (KTS) tool, or the like, these approaches illustrate the intention of architects and, in fact, teachers in the field, to discover the cultural and psychological relations and not only, between the beneficiary and its specific housing. From these studies we can draw some information that can form the basis of future research, development and use.

In any action related to design, architects are accustomed to "interview" the beneficiaries about their needs, about their housing, and future home that they want. But, apart from this reality and as a direct link with all illustrated before, precisely in this context falls and tools proposed in the final part of this paper. Structured questionnaire and Lüscher Test may be applied independently or combined, in order to receive as much information from those we are addressing to. This approach is meant to bring us closer to a specific housing, appropriate to client culture and personality. Such instruments, and others appropriate to the purpose, can be used by architects primarily in individual housing, in direct relationship with the customer. At the same time, can be applied to the social housing – mu-

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nicipalities and other stakeholders can use them to be as close as possible to the real needs of potential users. It also can be applied in collective housing – a better knowing of their future clients, both in terms of cultural orientation and also in that of their personality preferences, the investors and entrepreneurs could enrich and diversify plans range and proposed improvements in housing or in residential developments. These cases requires the more interdisciplinary collaboration and coordination between architects, anthropologists, psychologists, sociologists and specialists in other disciplines, a process designed to provide all relevant information necessary for such an approach. Finally, these problems can be put in architectural education. Students may begin to familiarize themselves since studies about cultural and psychological aspects that habitation entails, by involving them in scenarios of customized housing, imposed even by the criteria required to draft design themes.

By presenting the two instruments we do not want, by far, to draw a comprehensive rule, or to impose their use, but to engage us within interdisciplinary trends, regarded by us as being designed to determine achieve a set of criteria for improving housing.

Finally, we note that this approach does not cancel creativity and the role of the architect. In agreement with the three vitruvian qualities to be met by building – firmitas, utilities, venustas – certainly that the architect must prove ability to balance his options with the real needs of the beneficiary, by incorporating into design the culture and personality issues of the person he is addressing to. This requires great sensitivity and skill, making, in fact, the real difference between a novice and professional.

Keywords: *Architecture, anthropology, psychology, personality, housing, home, customization and design efficiency*
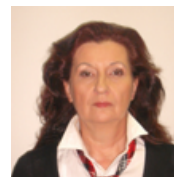
Dorina ONESCU-TĂRBUJARU

Assoc.Prof.Dr., "Ion Mincu" University of Architecture and Urbanism, Romania

dorina_ot@yahoo.com

Architect, "Ion Mincu" University of Architecture and Urbanism in Bucharest, Ph.D. in architecture, assoc. prof. at U.A.U.I.M. the Faculty of Interior Architecture, Interior Design and Design Department, coordinator of the second year of interior architecture.
Activity: books, articles published in volumes or in specialized magazines, contributions in sessions of scientific communications, in symposiums and in national and international conferences, projects of architecture and interior design most of them already carried out, research studies and projects, cultural projects, object-oriented design, graphics in advertising, organizer of architecture and design exhibitions, membership in professional organizations: OAR, UAR, SAID.ro.
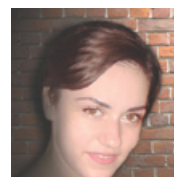
Ana-Lucia LECA

Int. Arch., PRISPA Association, Romania

lecalucia@gmail.com

Interior Architect, "Ion Mincu" University of Architecture and Urbanism in Bucharest, Faculty of Interior Architecture, Decathlete and Interior Architecture Coordinator at Prispa Team, Solar Decathlon Europe 2012 Madrid.
Activity: articles published in volumes or in specialized magazines, contributions in international conferences, books, workshops organiser, volunteer, team representative in national and international competitions.

Ana-Maria DIN

Int.Arch.Stud., "Ion Mincu" University of Architecture and Urbanism, Romania

13maria.din@gmail.com

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Interior Architect student, "Ion Mincu" University of Architecture and Urbanism in Bucharest, Faculty of Interior Architecture, Decathlete and Interior Architecture Coordinator at EFdeN Team,Solar Decathlon Europe 2014 Versailles.
Activity: articles published in volumes or in specialized magazines, contributions in international conferences, volunteer, team representative in national and international competitions.

Two Projects, Two Teams, Two Houses: Prispa And EFdeN At Solar Decathlon Europe

Dorina ONESCU-TĂRBUJARU, Ana-Lucia LECA, Ana-Maria DIN

Abstract

The academia evolves, pushing performance limits increasingly above, especially through international contests. One of the statements for the architecture students consists in how should the projects be during study years: resembling the real life projects, preparing them for the future practice, or exceptional and unique projects, unlikely to encounter in the real world, although imagination empowering. The academic background, starting from imagination to real project, shows that performance is achieved when working in teams and mixing experience with youth. The university's initiatives will produce a change for future professionals.

This is the context of the developed theme, aiming to study two projects: PRISPA and EFdeN. Both represented Romania at the international competition of solar houses and embedded technologies, Solar Decathlon Europe (SDE). The contest addresses schools of various fields (architecture, engineering, machine building, art, management, marketing and communication, etc.), integrating the projects into the academic curriculum. SDE is a prestigious competition, with almost two-year development per edition. The two European editions of the competition have developed different strategies to approach the projects. Almost all the teams of SDE 2012, Madrid edition, presented solar prototypes for rural architecture. PRIS-PA is a viable solution for the Romanian rural revival, regarding the village's land-

scape, houses and community. The solar prototype abide by the principles of the traditional architecture, through the carpentry construction method and the presence of the inertia thermal spaces: prispa, vestibule and northern thermal buffer (storage and technical core). On the other hand, the SDE 2014 edition, Versailles, established rules solving urban architecture problems. The EFdeN project proposes densification of brownfield sites in Bucharest, through residential complex built by variations of the EFdeN prototype. The focus of the pilot project is based on the nature integration in habitat with an energy efficient greenhouse.

The two projects were built in Romania and transported to the competition site. Their stages of development were sequentially added as layers in the two year's process, which led not only to integrate research into the solar prototype, but also to identify the constructive solutions through practice. PRISPA and EFdeN offered a hands-on learning method for an integrated design-build process.

The paper explains the change of a set of values in architecture for students, bringing in the spotlight the innovation in sustainable design. For the students involved in the two teams, the participation at SDE competition represents the first real project, a project of integrated research in construction. They learned multidisciplinary under the guidance of teachers and applied technologies under the market and industry professional's supervision. PRISPA and EFdeN enriched the knowledge about the potential of an initiative, a project whose value increased after the teams and the solar houses returned to Romania from Madrid and Versailles. PRISPA has achieved in September 2012 second place at the Energy Efficiency contest, second place at the Public Option, fourth place at the Electrical Energy Balance contest and Honorable mention for social awareness in solar system integration. EFdeN returned from Versailles in July 2014, with Honorable mention for sustainability. The paper will present the PRISPA's and EFdeN's endeavor for obtaining the mentioned results.

The route between the call for application and the competition is sustainable through: the innovative methods of integration the materials and equipment, time management for transport and efficient assembly and disassembly of the solar prototype, financial investment obtained from project and returned into project, interdisciplinarity, volunteering, awareness for solar energy and sustainability.

Students participating at a SDE competition achieve knowledge through challenges to research and experiment. This knowledge represents the background for the students' career, for futures professionals who will be responsible for the build environment. Being SDE's competitors, PRISPA and EFdeN are viable and tested projects for the Romanian market, by answering to sustainability and innovation, and an example for practice oriented educational projects.

Keywords: *Integrated research, innovation, solar house contest, interdisciplinarity, design and build project*

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Gabriela MINDU

Arch PhD, Associate professor, "Ion Mincu" University of Architecture and Urbanism, Romania

gabrielamindu@yahoo.com

1999 - present: Member of the Union of Architects of Romania
2000 - present: Member of the Order of Architects of Romania
2008 - present: Member of Society of Interior Architects and Designers of Romania (chairman of the Order and Professional Ethics Commission)
2012 - present: Member of Romanian Acoustic Society
1994, 1999 - Bachelor's and master's degree from UAUIM
2008 - Doctoral degree in architectural acoustics from UAUIM
2013 - present: Associate professor at "Ion Mincu" University of Architecture and Urbanism, Bucharest, Romania - Technical Sciences Department (UAUIM)
2006 - 2007 Advisor - The National Directorate General for Cultural Heritage - Historic Buildings Department - Ministry of Culture
2006 - 2007 Secretary of The National Commission of Historic Monuments
Coordinated projects: Romanian Athenaeum Restoration Project (historic building of national interests included in the Historical Monuments List of Romania), Coltea Hospital (historic Building), Radu Arion House in Bucharest.

Integrated Ecological Solutions To Effectively Soundproof Living Spaces

Gabriela MINDU

Abstract

Over the last few decades, one has felt ever more acutely the lack of acoustic comfort, both inside and outside our living spaces, be that during the daytime, or the nighttime. The most concerning issue in this respect is the discontent felt by the people living in the residential areas of the big cities. Huge

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highways, passing very close to living areas, and large streets inside the cities are some of the most important factors of sound pollution. Short and medium term effects of unwanted noises passing through the walls of our apartments are very well known and have been the subject of intensely popularized debating. That is why we are constantly searching for solutions perfectly adapted to the varied conditions of the acoustic discomfort created. Urban development sometimes consists of continuous fronts alongside large boulevards, leading to high and narrow hallways, which can only be the most unfortunate geometrical configurations, spreading, if not amplifying, the noise.

The city development can't be slowed down by such an immaterial and impalpable reason as noise. The solution to taking living spaces outside the crowded area of the city can only be put into the perspective of the future constructions. But, what to do about the houses initially built in the suburbs, which, due to city expansion, are now in center areas? No one has discovered a way to improve the inhabitants' comfort yet, as they are getting more and more crowded and suffocated. Or, if such solution does exist, it only solves to a certain extent the noise problem. The only acceptable solutions of urban soundproofing are inside the homes, as we are not taking into account soundproofing the driveways.

The current legislation concerning domestic renovations does not include the obligation to change the window for one with better acoustics, but only to keep the aspect and volumetry, or the initial surface. In most cases, due to the lack of minimal specific knowledge, changing the doors and windows, will not necessarily lead to the maximum level of soundproofing. Most people will look more into the financial or aesthetic aspect of changing the windows, rather than the soundproofing itself. That aspect will be only partially solved, as some people find it impossible to make a difference in quality between products with similar look.

Soundproof panels have been around for several decades, but they are mostly solving noise issues in extra-urban areas. The research project I am currently managing is part of the PN II - Partnerships in Prioritary Fields program; it has been initiated a short while ago and is called "Intelligent modular panels, with high fidelity multi frequency, adapted to the absorption of specific urban traffic

noise"(PANINTRAF). One of the questions hopefully answered by the end of this project is to what extent the soundproof panels used outside the cities can be adjusted to serve the urban area. We aim to find solutions perfectly adapted to both the urban and extra-urban areas, solutions which can be made entirely out of recycled materials.

Any specialist, who suggests integrated projects, aiming the improvement of the quality of life, has to see the reduction of the environmental pollution as priority. With that goal in mind, the first stage of the project, called "Industrial research in the field of raw material and the determination of the best composition, in laboratory" has had the following chapters:

1. the selection of the main types of waste, resulted after recycling plastics, ceramics, metallic or rubber products
2. the selection of the adhesive type, compatible to the products and materials selected
3. the selection of the protection layers' substances (fireproof, biocide, waterproof, etc.)
4. assessing the optimum dosage of the raw material
5. devising the technological procedure to actually make the products - part 1: technical studies
6. conclusions

This newly started project has many goals, but one of the most important of them is to use and re-use waste, meaning less energy and resources intake, in order to achieve these intelligent noise-absorbing panels. Rediscovering silence and a climate of peaceful and normal life inside the big cities should not be an impossible project, but a challenge for all those able to give the best solutions to these annoying problems. The adhesion to the philosophy of sustainability and the adaptation of the available potential in that direction vastly exceed the boundaries of urgent utility of the current projects, created specifically for a client or an agency, and looks hopeful towards the new generations.

Keywords: *acoustics, soundproof living spaces, research projects, acoustic comfort, ecological solutions, urban soundproofing panels, domestic renovation.*
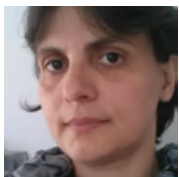
Cristina PANĂ

PhD, Assoc. Prof., "Ion Mincu" University of Architecture and Urbanism, Romania

crispruncu@yahoo.com

Cristina Pană (b.1967) is PhD Architect, Assistant Professor at "Ion Mincu" University of Architecture and Urbanism Bucharest, Faculty of Interior Architecture (FIA), Department of Interior Design and Design. She obtained her PhD title in 2010 with the thesis "Lighting design – Theory and Design Issues" and the Master Degree in Urban Planing in 1996, both at UAUIM Bucharest. She coordinates the interior design activity for the 4th year and holds lighting courses in FIA (Lighting Design, Interior Lighting), and postgraduate course in UTCB (Architecture and Design in Lighting Design). She has several participations at architecture and lighting design conferences. Her professional activity includes: architecture, interior design, lighting design, furniture design, graphic design, scenography. She is author of the book "Lighting design – Theory and Design Issues" and co-author for 5 books and more than 50 articles in architecture journals. The architects team Enter Studio (Cristina & Radu Pană) is the winner of the first prize of the International Contest for the Architectural Lighting of the University Building Bucharest – Romanian Lighting Convention 2011.

Innovation In Lighting Design, Experiment As Learning Tool

Cristina PANĂ

Abstract

Lighting design is part of architecture, where innovations succeed with high speed in the recent years. New technologies have opened new possibilities for lit environment, which architects and interior designers need to learn and to experience for integrating in their projects. The LED-s can change the fastest the atmosphere of a room, both in intensity, but also in terms of colors of light. A contemporary interior can and should have a flexible lighting solution, including the newest control systems, which allow the selection of different images and

emotions, by a simple touch even on the screen of a smartphone.

1 Teaching lighting design

The study of lighting design in the Faculty of Interior Architecture covers three specific issues: theory, design and practical application (workshop), highlighting the importance of each stage, and the correlation between them. Of course, the most fun part of all is the workshop, where the students really experience a sequence of their project.

1.1 Theory

The lighting design courses in Interior Architecture Faculty cover two semesters.

The first course starts in the 8th semester and consists of theory, technology and case studies. The specialized terminology is very important for the further collaboration with all the designers involved in a project – architects, interior designers, electrical engineers, lighting designers etc. Understanding physical phenomena will help the interior designers to play with light effects on different forms, textures and colours. They also learn that there is no contradiction between high quality light and energy efficiency, two important concepts for the present and the future of lighting design.

In the 9th semester, Arch PhD Raluca Buzdugan teaches Artistic Lighting, including the psychological aspects of light, but also about lighting design as an artistic approach.

1.2 Lighting Design Studio

In parallel with the Artistic Lighting courses, students work on a project with two major components: a proposal for the lighting system of an art gallery and an artistic installation.

The flexibility is one of the main concepts for the functional lighting of a temporary exhibition, but the students must be able to choose the right lamps for sensitive art protection, for color rendering or light color characteristics, but also for the suitable light effects for different exhibits: paintings, sculptures, photography, 3D

models etc.

At this point, it is important to be informed about the latest innovation in lighting technology, including lamps, luminaires, control systems, and design too.

The second part is an artistic installation, in which students should tell a story on different themes, using different techniques and playing with light and shadows.

1.3 Experiment as learning tool – the workshop

Part of the artistic installation is subject for the one day workshop, after projects delivery. Very useful is the possibility to verify the relation between the project and the reality during the workshop, and also to return and to modify the second part of the project after the experiment with light and shadows.

2 Conclusions

At the end of the lighting design courses and projects, and after experiencing light effects, the students should be able to propose a lighting system in terms of quantity and quality of artificial light, using the most innovative concepts and technologies at the time.

Keywords: *lighting design, light, theory, technology, LED, innovation, experiment*

Darius OANCIA

Drd.ing., Technical University of Civil Engineering, Bucharest, Romania

oanciadarius1984@gmail.com

Improved Methods And Technologies For Positioning On Tunnelling And Underground Stations.

Darius OANCIA

Abstract

In the modern world of underground constructions are essential components of the infrastructure.The most representative points of the communication are railway tunnels and roads. Communications for railway tunnels are representative of the most representative group of underground constructions because of values, size and economic role social.

The development of modern underground parallel architecture that environmentally responsible design of energy crisis 1972. They grew up as separate branches of the same tree moving about independently and attract different nesters. In a way, their connection is generally overlooked.

Innovative technologies (immersed tubes, frost, jet grouting, pipe-jacking, chemical injections) have enabled underground construction land and difficult conditions.

Architectural volumes highlighted by shadows and light, direct participation of images expressed by the city assembly building facades not found in modest bouts of downhill underground. Directions predominant flow of passengers, their correlation with urban passages and architecture scene, as riparian areas and construction, location determine accesses in subway stations. Subway, building without facades, architectural ensemble appears frequently represented only by this accesses. Specifics architecture subway stations built in Bucharest architecture is

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totally different from any other buildings

Each technical element was reconsidering his aesthetic origin. Structural elements or installations routes were born in planimetry games or vertical planes ceilings, moldings and pilasters strips in architectural formulas which in turn became separate notes for each architect.

A new approach is looking for a solution for maximum integration Metro access from the urban context. Access is via a steep staircase that invites people slowly coming out of the subway station to a potential market. Square will host events and presentations several times a week and also parking facilities for bicycles.

Another example would be the design consists of a series of rectangular volumes. A skylight brings natural light below ground level platforms, which are accessed by escalators.

For stations may be exposed mainly based on "full flex", which provides more flexibility for future platforms for future groundwater and other transport networks.

It can be used to incorporate roof garden or minimize the footprint of the building, but this view completely underground possibility of designing spaces for human component.Daylight and lines of sight can act as important parameters to create an environment sigur.Statiile for example can become regional and local train stations. Materials that can be used: structure stainless steel fiber concrete, fiber cement, concrete, glass, teak details and rails. Thanks to the materials that can be used (wood, warm colors) and a strong presence of nature, these places are a place to 'live', a combination of user-friendly and sensory atmosphere.

There are different interpretations of terms such as green building, sustainable design and green architecture, but one set of the most detailed and widely accepted criteria is leadership in Energy and Environmental Design (LEED) rating system developed by the US Green Building Council

Noise control is a primary consideration in the construction of an underground town or school.

Underground buildings are practically tailor-made for achieving LEED certification. However this pun is used in particular for underground parking

Measurement specialist must know the general requirements relating to the preparation and approval of projects, general technology through various methods of execution of construction and construction work required during operation. Given that the work is carried out in the absence of topographic natural light in confined spaces and generally required after tracks, it is natural to put the issue of adaptation or occurrence of specific equipment or work methods.

Use of equipment is tied and methods used in the execution of works.

The works executed in the creation or expansion of the network of underground extistente are demanding due to the high level of precision required to achieve them.

For execution of the resistance structure of subway stations is intended to introduce technical molded walls. Molded walls is long and deep walls located below ground level concrete poured. Can be molded wall thickness of 50 cm to 120 cm and depth varies between 15 m and 60 m.

Molded walls are used for deep excavations to provide resistance and waterproof. They can be installed in close proximity to existing structures without affecting in any way the foundation structure. An example of the use of the walls is molded in the case of crowded urban areas, in order to provide an appropriate retention system. In some situations, when architects approve relative resistance to water, molded walls are used as exterior wall structure for the future. The walls are called skinny straps when used as a foundation, like pillars. The cut is performed mainly mechanically using appropriate equipment: bulldozers, excavators, draglines, etc. These machines can be placed either inside or on the edge enclosure fence of the site where space permits. The last 20-30 cm of excavation is performed manually to achieve rigorous share and cut the required design in order to achieve the slopes required by the project.

In the planimetric determinations are most commonly used for stage totale.For a leveling stations (trigonometric) they do not provide enough accuracy to ensure good as the requirements of the rules of work.To determining the third coordinate of a point is used geometric leveling or hydrostatic leveling.

A new concept has changed the rapid determination of the spatial position of objects, which is based on laser scanning 3D.This concept was taken and geodetic

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measurements, because through this technology can be automatically determined the geometry of an object without using a medium reflective measurement precision and high precision.The result is represented by a set of points, called "point cloud".

Due to the obvious advantages of laser scanning such as: measurement without having any direct contact, high precision, long distance action, the rapid acquisition of information, etc., other areas such as architecture, urban development, judicial and industry leisure little by little start to adopt this technology.

There are solutions of issuing positioning methods using combined methods using specialized software or total. Total stations have implemented this software or total stations are connected to a computer via Bluetooth or data cable.

For a good development activity will require a follow-up of the constructions.A very best way is to compare the measurements made by traditional methods with those achieved using laser scanner.

Another concept also involves taking certain information from so-called slope (using inclinometers.)

Inclinometrele are the tools most often used to monitor lateral movements of the earth in areas of landslides and embankments. There are also used to monitor deviations retaining walls and pipelines subject to charges.

All the above methods provide improvements over known methods so far.

They can be further improved if softwares improve data processing and if they are stored in a database.

This article is designed to awaken developing new ideas for engineers, surveyors,architects and designers used on underground structures.

"Underground buildings can not be the right choice for every project, but they deserve to be considered on an equal footing with other options" (Loretta Sala).

Keywords: *inclinometers,survey,measurments,Molded walls,laser scaner,total station.*

Radu SFINTEŞ

teaching assistant, pdh candidate, "Ion Mincu" University of Architecture and Urbanism, Romania

radu.sfintes@gmail.com

Radu Sfinteș graduated the Faculty of Architecture at the University of Architecture and Urbanism „Ion Mincu" (U.A.U.I.M.) Bucharest in 2008. Has a master degree in Sustainable Development awarded by the same university and, since 2012, he is a PhD candidate in architecture. The subject for the forthcoming PhD thesis is about the relationship between architecture and the spectator inside the football arenas. Radu Sfinteș is working as a teaching assistant, at the "Technical Science Department", in U.A.U.I.M. since 2012.

Football Arena – A Multifunctional Space

Radu SFINTEŞ

Abstract

Improving life parameters, directly related to urban space, can start even from the football stadium. This sports arena, along with its related spaces, can become a generator of daily activities oriented towards the end user. The preconceived idea that this space belongs only to the supporters can be changed gradually by introducing, inside the arena, the functions requested by the area it serves. After all, creating conditions of life, similar to those of the big cities, it's a necessity for any location. In addition to the essential requirements related to accommodation, food and services, the functions that the town offers to citizens must satisfy the needs of leisure, of access to culture, entertainment and so on. Especially in this area of functions our new type of proposed sports arena can intervene with innovative ideas.

Romania has a great potential in building new arenas which could satisfy the requirements mentioned above. In the last 20 years we haven't seen major investments in this field of architecture. The few football stadiums built in this period, however, don't meet the criteria to fit in the proposed design for modern arenas. Limitations, since the design phase, led to elimination of related functions (such

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as: catering, restaurant, bar, souvenir shop and so on) and so have increased the payback period, which translates into a reluctance of those with the power to make decision (both at the level of the club and at the local or national level) to modernize existing stadiums.

This paper aims to argue the need to implement a wide range of complementary or opposite functions into the football stadium. This space should become a multifunctional center which could serve the local interest, not only in terms of the "show" provided by football matches but also by organizing cultural events, social, recreational events and so on. Also we try to present another possible side of this space, which has suffered from its association with the image of hooliganism phenomena. Football arena must regain the value to reconnect different social strata, different cultures, to facilitate the organization of sports meetings (one of them being the football, but we shouldn't be limited to it) and cultural events.

The current image of football stadium has to be changed. In modern society the limitation of a space to a certain segment of population could mean its disappearance. Eventually even the king of sport is a business; a business in which money are invested and from which you want to obtain a profit. The football club has as main source of income the football team. Based on the results of this team the football club can obtain income. It goes without saying that the team placed in the top rankings start gaining more and more and thus becoming a successful "business". Gains may be direct (money earned from: television rights, the position in the final standings in local and international competitions, advertising contracts, the selling of football players etc.) and indirect (first of all relate to growth of: the number of supporters, the interest of companies for advertising and so on).

As you can see, as in any system that has reached a certain maturity, we identify a sort of a closed circuit in which stratification has become precise between the top teams, platoon and those that are fighting for relegation. The accession of a lower category team into a superior one occurs with a great financial effort by the owner of that football club. In this certain equation we try to introduce the new system of the football arena. Based on this new way of designing football arenas as multifunctional space, we believe that we can insert a new equation in this closed system to further boost the direct and indirect gains.

Keywords: *Football arena, multifunctional, related functions*

Mihaela HĂRMĂNESCU

PhD architect, lecturer, "Ion Mincu" University of Architecture and Urbanism, Romania

mihaela.harmanescu@gmail.com

She was graduated from the Faculty of Architecture, UAUIM (2004) and also completed her master degree in Sustainable Architecture (2006) and PhD in Urban Planning (2013) in the same institution. During her studies she received several awards and scholarships. Internship architect, working in Architecture Department, Ministry of Education, Amman Jordan and architect, working in the international architectural office for private and public finance projects with sustained activity in the field of architecture: retail, office and mixed-use development, public spaces, large-scale project and urban planning, last office where she worked being Chapman Taylor România. Since 2009 she developed her own individual architectural office.

Currently, lecturer at the Faculty of Urban Planning and research fellow at Romanian Academy, she explores the different relationships between the built environment, heritage and social – cultural side of the contemporary rural landscape and is involved in projects, studies, research / educational workshops domestic and international in the fields of sustainability, rural environment and cultural landscape. She is a member of a number of professional organizations, various international working groups that integrate the academic research with professional field, occupying key positions in the Strategic Research Society Advisory Board and Strategic Research Initiative Board Directors Board.

From 2013 Mihaela Hărmănescu became Vice-President of Rencontres du Patrimoine RPER-RO Europe - Roumanie, for cultural landscape division.

Received a number of Awards and Honors: Green Building Education Initiative of the Year for Faculty of Urban Planning together with the dean, prof.phd.arch Tiberiu Florescu, (RoGBC, 2013), Anuala de Arhitectura (OAR, 2007 nomination for studies and projects, project team), Romanian Erasmus Students Ambassador (European Commission 2002).

Rurality Today? Landscape And Heritage Sustainable Management

Mihaela HĂRMĂNESCU

Abstract

The democratization processes take into account the liberalization and spreading of the controlled decisions first at a central level, as far as space organization is concerned. They currently happen ad hoc and frequently threaten the quality of the landscape, therefore the impending need to implement a clearly defined set of regulations that would comply with the superior concept of sustainable development. The gravity of the situation can be seen in the fact that landscape policies, sustainable strategies and sustainable administration have become very important in the European Union's utterances.

Thus, a major interest – and somewhat urgent – is represented by the landscape, the unprotected landscape of everyday life. Because the landscape in Romania is vastly rural and agricultural, this research paper aims to promote solutions to problems in the rural environment that has lately been subject to a chaotic development. By knowing the potential of a rural landscape and by correctly applying its capitalization criteria, a sustainable strategy can be born. In order not to alter the relish of the landscape, the methodology of this strategy takes into account fundamental elements, the site culture of a rural settlement, identified within the project as heritage and rural heritage. How do we integrate the unprotected rural heritage? How can this be locally and nationally recognized and, moreover, integrated on a European level? How can the settlement evolve? These are questions that seek answers here.

The research paper aims towards a scenario with minimum "external" interventions and maximum usage of local resources. From the point of view of applying the strategic plans of the chosen European models, "autonomy" of the rural areas will be sought. This "autonomy" must be doubled by flexibility and adaptability in the policies and programs as a response to the impending changes that will appear, through comparative analysis on a European level.

The importance of this research strongly linked to determining already existing development tendencies in the rural local communities, due to mobility, globalization, and other factors. It aims to analyze the possibilities and limitations these "bottom to top" development present and to determine, as a consequence, a general sustainable management setting for rural settlements. It focuses on policies of protection towards fundamental elements possibly threatened by chaotic development tendencies that already exist which changed the identity and on promotion strategies for the Rural Landscape and its relation with Heritage, Culture and Sustainable Administration.

To the extent to which they will determine the limits of these developments based on local community or individual resources in a self-administration manner, it is desired to find alternative development possibilities based on local resources that have yet to be capitalized. What is at the core of the proposed strategies is represented by compared studies and, mainly, field studies, the main interaction with the local communities.

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Ina LEONTE

PhD, "Ion Mincu" University of Architecture and Urbanism, Romania

ina@zestcollective.ro

Ina Leonte is currently an assistant teacher at the Ion Mincu University of Architecture and Urbanism in Bucharest as well as founder of ZEST Collective architecture and design studio. She graduated the same university in 2010 and received her PhD degree in 2014. Her studies concern computational design, specifically open ended design and its implications on the definition of the architectural object and the role of architects within this framework. Ina has also worked with Parametrica [DigiFabSchool] in organising computational design workshops and conferences.

The Experiment As Necessity Within The Computational Design Paradigm

Ina LEONTE

Abstract

Within the computational design paradigm there has been extensive theoretical advancement, which has not yet manifested its estimated potential in the built environment. Us computational design adopters are always happy to see a new pavilion, intelligent façade system or new 3D printers but that seems to be all we have to show for the shift between designing form and designing formation. Design as open process generates the necessity for negotiation between letting go of control versus having the last say in the matter of form. The shapes that open-ended design creates hardly ever manifest like architecture as we know if they remain faithful to the morphogenetic algorithm. However, computational design has produced many intelligent small and medium-scaled projects that reside at the boundary between architecture, experiment and art. These installations play an important part in mapping the unknown territory created within the new technological framework through novel design methods.

Design as open process has been interpreted with regard to morphogenesis. However, it may well be interpreted as an open-system with regard to participation, namely its relationship with the community. With open-source construction platforms such as WikiHouse, we notice that the changes the new paradigm is bringing forth are not necessarily changes in form, but changes in platform. The theory behind computational design is building a new world image where flows and processes are positive concepts and have become part of the design theme. The new tools and technologies may have surpassed our ability to understand their potential.

These definitions have yet to take shape in our context, where computational design is apparently failing to show outstanding benefits that go beyond technical performance. This paper discusses the importance of experimenting within this new framework, wildly and even childishly so. Experiments have an outstanding importance in our field nowadays, as they embody the non-linear nature of the theory behind computational design. They are designed to uncover the potential of the way emergent design methods make use of digital fabrication. The joy with which Rhino Grasshopper users create complex shapes with little use or significance has endured some criticism when in fact it is the only way to step out of our traditional ways and discover computational-specific approaches to design.

Therefore, experiments are essential for as long as their result is not cast as the super-project that is changing the world and they are treated as such. They have become a fundamental means of investigation in discovering what is valuable and what is merely instrumentalism in the use of new design methods and digital fabrication. Within this framework, the paper presents the evolution of the WAVICS 3.0 interactive installation created by myself, Andrei Mitisor, Aostacioae Mihai and Deaconu Irina. This is an experiment concerning interactive surfaces and the part they could play as components of built space. It is an interactive surface made of 615 square mirrors that act as moving pixels. The mirrors react to the presence of the user by moving towards their right hand and following it around. The paper presents the unpredictable changes that took place between concept and materialisation through diferent phases of the design and, more importantly, how WAVICS 3.0 was validated as an experiment through use and not by our initial predictions.

Mihaela HĂRMĂNESCU

PhD architect, lecturer, "Ion Mincu" University of Architecture and Urbanism, Romania

mihaela.harmanescu@gmail.com

She was graduated from the Faculty of Architecture, UAUIM (2004) and also completed her master degree in Sustainable Architecture (2006) and PhD in Urban Planning (2013) in the same institution. During her studies she received several awards and scholarships. Internship architect, working in Architecture Department, Ministry of Education, Amman Jordan and architect, working in the international architectural office for private and public finance projects with sustained activity in the field of architecture: retail, office and mixed-use development, public spaces, large-scale project and urban planning, last office where she worked being Chapman Taylor România. Since 2009 she developed her own individual architectural office.

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From 2013 Mihaela Hărmănescu became Vice-President of Rencontres du Patrimoine RPER-RO Europe - Roumanie, for cultural landscape division.

Received a number of Awards and Honors: Green Building Education Initiative of the Year for Faculty of Urban Planning together with the dean, prof.phd.arch Tiberiu Florescu, (RoGBC, 2013), Anuala de Arhitectura (OAR, 2007 nomination for studies and projects, project team), Romanian Erasmus Students Ambassador (European Commission 2002).

Cristina ENACHE

PhD, assoc.prof., arch., "Ion Mincu" University of Architecture and Urbanism, Romania

cristinaienache@yahoo.com

Cristina Iuliana ENACHE is assoc. Prof., Ph.D. architect, Director of Urban Design and Landscape Architecture Department, UAUIM Bucharest. She graduated as architect, UAUIM Bucharest, and she holds a Doctor's degree in Urban Planning. The PhD thesis title is The Urban Landscape in the Information Technology Context – study of new technologies implications and tendencies in the traditional urban structure.

She is managing partner at ARTTEK CB. Cristina Enache is Member of professional organizations OAR and RUR.

Her scientific activity includes: the book "City and the Urban Society in the Age of Information", papers, articles and lectures as single author or co-author: "Media Landscape","A disscussion about new Bucharest ShoppingScapes", "Macrostructures - a discussion on architecture and landscape", "Density and Landscape", "Landscape in the Informational Era", "Urban Landscape – From Message to Mediatisation", "Urban Landscape and Technological Development", "The landscape heritage, the value of the monument - parks. Study: Carol Park and Stirbey Park", "The Landscape in the Informational Age – between technology and genius loci", "European city in the Information age; The IT phenomenon in the contemporary society".

She is author and co-author of more than 50 urban study, landscape design and architectural projects: Taichung Gateway Park Competition, author (2011), Lunca Jiului Park - Craiova - Landscape Technical Design, author (2009), Busteni Central Park - Landscape design project, author (2008), PUZ Stirbey Park - Buftea - Master Plan and Landscape Study, team member (2008), Carol Park - Bucharest - Master Plan and technical project, author (2007), PUZ Expozitie Bvd – Bucharest – Master Plan, author (2007), Tineretului Park - Bucharest - Master Plan and technical project, team member (2006), Master Plan of Fardea, Timis, team member (2005), Busteni Downtown Spatial Design, co-author (2008), Targoviste City Mall, Targoviste / Privat project, co-author(2008), Civic Centre Medias– Offices, Collective Housing, Hotel, Commerce, Clinic, Church-Medias, co-author(2008).

Mihnea DRĂGĂNESCU

PhD C, urban planner, assistent professor, "Ion Mincu" University of Architecture and Urbanism, Romania

m.mdraganescu@gmail.com

Mihnea graduated from the Ion Mincu University of Architecture and Urbanism in 2008 and is currently a PhD student and a teaching assistant within the mentioned institution. He first started working for a small local practice in Barcelona, then for several practices in Bucharest, either as a full time employee or on a collaboration contract basis. His greatest career development however began in April 2008, when he started working for one of the largest architecture practices in Europe and got a real insight not only on architecture and urbanism, but also on business strategy and organisational management. The projects he worked on vary a great deal, from small scale individual housing units, to Class A office buildings of big dimensions, public buildings such as hospitals and shopping malls, airports and museums, mix use development masterplans, urbanism and landscape design projects and studies. Mihnea's current interests vary as well, from teaching, architecture, master-planning, landscape design and sustainable development, to business management and strategy. He is currently trying to demonstrate the unbreakable link between the built environment and the landscape it is housed by in his PhD thesis and striving to achieve a set of rules and guidelines for designing buildings and cities with little impact on the natural surroundings. He was accepted to take part in either one of the two more prestigious MBAs in the world: London Business School MBA and IESE Business School MBA, being granted a cost funding, based on his GMAT high scores and his experience in the field of work.

Sebastian Nicolae GUȚĂ

PhD, urban planner, assistent professor, "Ion Mincu" University of Architecture and Urbanism, Romania

sebastian_guta@yahoo.com

Sebastian Nicolae Guta (37) has graduated "Ion Mincu" University of Architecture and Urban Planning (U.A.U.I.M.), Bucharest, Romania in 2005, Urban Planner specialization.
On February 2007, he obtained his Master degree in Integrated Urban Development, and on October, 2007 he became teacher of "Ion Mincu" University of Architecture and Urban Planning Bucharest, Romania, Faculty

of Urban Planning.
On September, 2014, he received the Ph.D. degree from U.A.U.I.M with his work "The dynamics of the nocturnal city through lighting".
Currently, he is Teaching Assistant - Urban and Landscape Design Department, "Ion Mincu" University of Architecture and Urban Planning, Bucharest.

Experiment: Revitalization Of The Romanian Seashore Through Sustainable Landscape

Mihaela HĂRMĂNESCU, Cristina ENACHE, Mihnea DRĂGĂNESCU, Sebastian Nicolae GUȚĂ

Abstract

The Faculty of Urban Planning set, on the basis of a Mangalia City Hall initiative, a Project meant to revitalize – in terms of both urban elements and landscape design – the resorts that fall within the administrative boundaries of the City of Mangalia, aimed at raising the local attractiveness and re-finding an identity on this particular area of the Black Sea shore.

The project started through a unique experiment in November 2013, with a student workshop that would lead to discussions with the local authorities, an approach that had never been used before in Romania. The Project of revitalization and landscape design proposals for the seashore on the Mangalia-Olimp strip aimed at promoting the area within the International Tourism Fair by announcing the implementation of solutions that focus on durability in touristic development of Mangalia and the surrounding areas. An important moment in the development of this project was represented by the public discussions held upon the subject by students, within the Local Mangalia Council Meeting. Thus, through the interaction between students and various characters involved in the development of the above stated cities, an important moment was defined as part of the teaching process within the Faculty of Urban Planning, on one side, and the interaction between the planners to be and the authorities' decision makers, on the other.

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Scope of the Project: Where do we stand with the sustainable initiative now?

The challenge and initiative of the Local Council were embodied by the continuation of this collaboration with the implementation stage of these projects and with the enactment of an integrated development that details the first phase of the project, namely constructing inter-related development centers. These centers embody the durable development areas: the former industrial areas, dense collective housing areas, high identity areas, protected areas of the municipality of Mangalia.

The educational process of the Faculty of Urban Planning in this project, continually builds student-professional – local administration relationships and direct collaboration following specific applicability of the principles of sustainable urban design and conversion into visible concrete achievements which society can enjoy and raise awareness.

Pilot project: to where are we heading?

This project has a clear effect that will lead to transforming the Romanian sustainable development market, integrating sustainability in its economic and administrative levels, calling upon all elements that deal with the environment, landscape, viability, durability and so on. The project will follow the sustainable development programme that we are an active and directly interested part of, undergoing the formation line of the master programme that enforces abilities to plan these specific domains. This process deals with the understanding the materials and techniques in direct link with the Romanian market. One can easily identify the disponibility of this educational process with the suppliers and economic operators. Therefore, the role of the landscape architecture/ masterplanning student is to offer ideas to the authorities and to help authorities in making important decisions towards the sustainable development of urban areas.

The initiative can become a pilot Project, a development and growth model of urban-social life in cities in Romania, a Project that transforms the educational process into a real product, impacting the Local Regulation Books dealing with intervention priorities in the studied areas. It has also shown that, through experiments such as this one, boundaries can be erased and common grounds for dis-

cussions and ideas can be determined between authorities and planners.

People involved in the project: teachers and students of the Faculty of Urban Planning, Ion Mincu University of Architecture and Urban Planning, Bucharest, Romania:

Team: 29 landscape architects & master planning students, 10 teachers

Landscape architecture students L.Ferastrău, T.Piceava, A.Stoian, A.Stăncescu, A.Graure, F.Barabaș, D.Catana, A.Chiriță, A.Dublea, D.Iordache, E.Mușat, A.Simion, A. Toma, E.Rus, A.Barabaș, M.Drăghia, T.Csongor, V.Văcaru, G.Țigănilă, T.Stan, C.Zaharia, A.Chiorăscu, V.Barbuli, R.Chirvăsuță, M.Blejan, L.Neață, A.Ilie, A.Diaconu, A.Marin (so far)

Coordinators and tutors: arch.Cristina Enache, arch. Mihaela Hărmănescu, landscape arch./masterplanner Irina Pața, masterplanner Sebastian Guța, arch. Mihnea Drăgănescu, landscape arch./masterplanner Ana Opriș, landscape arch./masterplanner Andreea Bunea, masterplanner Liviu Veluda, masterplanner Matei Cocheci (so far)

Organizers: Department of Urban and Landscape Design – Faculty of Urban Planning, UAUIM, Mangalia City Hall.
Partners: AAUPR – Romanian Association of Landscape Design and Masterplan Graduates (AAUPR), Callatis Cultural Complex, Chelgate.

Project Calendar 2013 - 2014:

Phase 1: Finalized – November 2013 – February 2014 (February 29th - project presentation by students within the Local Council): Revitalization and landscape design proposals between Mangalia and Olimp

Phase 2: April 2014 - ongoing: Integrated development strategy and phased project implementation

Project nominated for Green Buildings of the Year Educational Innitiative RoGBC Award2014

More details on the official website of the city of Mangalia: http://www.mangalia.ro/primaria/proiecte/

Keywords: *education, Faculty Of Urban Planning, green innitiative*

Lavinia GRADISTEANU

PhD, "Ion Mincu" University of Architecture and Urbanism, Romania

lavinia.gradisteanu@gmail.com

A Sustainable Approach For The New Construction Materials

Lavinia GRADISTEANU

Abstract

The new sustainable, ecological and modern building materials are essential to the performance in usage, composition and functioning of a building related to the evolution of social and economic situation also with the environment matter. The recycling question expands into a strategy attending the fabrication of raw materials with the possibility of recouping already used materials and/or biodegradation of elements that were a part of a building.[1]

The multi-use purpose is provided in the early stages of production. For example, a building material can respond in the same way to the insulation property as well as the esthetic factor. On the other side, meta-materials are developed from a complex nano-technological process from which new physical and chemical properties result. Among these features, invisibility can be considered a characteristic, a magnetic field responsive by augmenting the force field, the notion of super-lens, violent reaction to light or darkness or sound reflection. [2]

The innovative ways of processing materials and their usage is a very important aspect in creating new building elements. A way to introduce these elements into the fabrication process is to grow them in a controlled environment until they reach a desired state in which can be harvested. Another method would apply to materials that are genetically modified in order to respond to environmental

stimuli. The actual investigations show that polipeptids came out of the laboratory forming a set of protocells compound from a grease sack and an artificial nucleus. [3][4]

In growing material industry derived synthetic biology, the living systems are designed to help in solving problems across various projects. Several laboratories and research university centres envisioned a new building material by combining synthetic biology, architecture and software computation. These new materials put up a new image about the near future when synthetic and DNA-changing biology may help us see how the design and manufacture the built environmrent with higher expectations and lower environmental impact than traditional methods. For example "bacteria can produce flexible, fabric-like substance. Bacteria can produce rigid, brick-like substance. And bacteria can generate complex, self-organized patterns. In an experiment combining these features, two different types of genetically-modified bacteria are mixed in a large petri dish and they generate flat sheets of material with distinct rigid and flexible regions. This process, which is still being refined in the lab, is then modeled in a software workflow."[5]

Some of the modern man's activities would include the concept of participative design. The new vision of the building environment would suppose the absence of the architect and the availability of a value system based on the people's conscience. We are looking forward to a technological progress which brings our return to nature. The construction domain aligns to an organic era, but on the other side a bionic one.

Keywords: *sustainable, protocells, meta-materials, growing materials, alive architecture.*

Sabina BERARIU

Architectural Assistant, Scott Brownrigg - Design Research Unit (DRU), United Kingdom

s.berariu@scottbrownrigg.com

Fresh Architecture graduate currently working with award-winning international practice Scott Brownrigg after graduating with a First Class Degree from the University of Portsmouth and being awarded the RIBA Student Prize 2014.

Often regarded as an extraordinarily imaginative mind gifted with freedom of expression and ambition towards visionary dreams, I am always on the lookout for challenges and opportunities to grow and fulfill my creative potential. My curious nature and openness towards unconventional allowed me to nurture my talents and grow into a well-rounded individual equipped with a fine blend of artistic and technical abilities, highly adaptable and resourceful. I have been admired for my resilience and grit to do anything it takes to accomplish my goals, as long as it stands in line with my mission statement and it contributes to my holistic understanding of the world. My perception of architecture is defined through the vision of a 'world-craft' where architecture is an increase of life, harnessing the desires, knowledge and technology of its people to transform surreal dreams into reality.

Above&Beyond- A Study On Architecture And The Self

Sabina BERARIU

Abstract

Overview

Genuine creativity is drawing pleasure, or even aversion, from an artistic object, and being spontaneously drawn towards it, almost in spite of ourselves, as if the object itself were a medium towards some unclear 'beyond'.

Yet, while artistic creativity is not limited to any particular art form, such as painting, sculpting, or poems, some forms of artistic creativity enjoy greater freedom than others. Indeed, while all artists experience freedom when they create, architects are limited by gravity in both a literal and figurative sense – literal because their creation must not crumble, and figuratively because their final creation must internalize the world whilst externalizing the mind. In perusing this thesis this work will begin by describing the interplay between art, artists and the freedom to create and the danger of losing this freedom.

Following this broad overview, this work will narrow its focus and investigate how architecture, as a constructed mental space of order, hierarchy and memory can reflect existential space and situations of life.

Emergence

One of the most interesting characteristics of human beings is creativity. This could be defined as the ability to transform the world, to imagine new possibilities, to probe the perimeters of possibilities and remake the present, to seek into the adjacent possible which is a kind of "shadow future, hovering on the present state of things, a map of all the ways the present can re-invent itself". Genuine creativity is a total state of emergence, the agony, perhaps the turmoil which the creator goes through during the stage of intellectual and design conception in his or her pursuit for creative inspiration.

M. Csikszentmihalyi believes that excellence arises in a state of flow, dictated by a coherent interaction between heart, mind and will, which work together to harness the supreme power of human potential. In the sphere of arts, this allows for the creative act to become a sparkle of intense life in contradiction with the trivial background it is projected onto.

Boundaries of self

Any form of art is a result of man's imagination and creativity, therefore it is a blend of knowledge, data, intuition, passion, romance and poetry, all fused in a single note, and sung in the "key of synergy". "What is great in man is that he is a bridge and not an end"; an entity placed on a trajectory that aims to evolution,

gifted with the power to control the course of events and determine the direction of the future.

Although it may seem that future happens passively, in fact, the future is created in the present now by visionaries who imagine and construct it: "There are some people who live in a dream world, and there are some who face reality- and then there are those who turn one into the other". The world is nothing more than an outline, a blank canvas for us to fill and beautify, the result of our collective memory.

The Open

The 'leak' of information from the universal source to us, the receivers, can only happen in a state of freedom and openness. The notion of openness has been argued by Heidegger, who defines the "Open" as being the whole realm to which all beings were given over in the formation of the world. Openness can be further explained as a delicate balance between knowing and unknowing, in a state where "we never come to thoughts. They come to us." However, this does not imply that unknowing is "a form of ignorance, but a difficult transcendence of knowledge" which then allows the act of creation to become an "exercise in freedom".

Intertwining

The architecture of now is a new one, full of movement, a process requiring a series of aesthetic choices, each heavily informed by other factors – programmatic, social, structural or economic. Although operating within the structured frame of an objective world, architecture should aim to render intense sparkles of life and existential self-knowledge, otherwise hidden behind the triviality of a mundane existence.

It seems that under the influence of a technologically built-up world, where everything, even "the earth and its atmosphere become raw material" for self-assertive production, artists themselves experience a paradigm shift. This leads arts and architecture to experience "a loss of knowing in the subtleties of life", as they no longer grow as an adjunct to culture and human sensibility, but economics and development. Whilst being a decisive factor of progress for architectural production,

the development of computerised digital technologies seems to disconnect one's innate nature from a transcendental understanding of the world. Within a present paradigm, defined by a distorted perception of what the true nature of being is, the importance of embedding oneself in a bigger architectural discourse, in the pursuit of meaningful ideas, becomes critical.

As "physicians of sense", poets inspire us to extend our search for answers and meaning through intermediation. Mere retinal images of architecture might appear sterile and lifeless when compared with the powerfulness of a poet's olfactory imagery. Just like a poet wraps his words in scents and tastes and through his work, is able to describe a whole world in all its complexity, through cross-disciplinary Re[search], architecture also can project full, comprehensive images of life able to ignite new conceptual fusions.

The task

From the vision of a 'world-craft', architecture could be seen as the fiction of reality, harnessing the desires, knowledge and technology of its people to transform surreal dreams into reality. Through cross-disciplinary referencing, this paper aims to open-up investigation into how architecture can mediate between the world and our existential condition, and ultimately, how confidence in the future of architecture lies within weaving together the various 'codes' into a "multifaceted vision of the world", where meaning emerges in the encounter of space and the dweller's sense of self.

Keywords: *Creativity. Intertwining. Emergence. Open. Transcendence. Self*

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Radu PANĂ

Assoc. prof. PhD, "Ion Mincu" University of Architecture and Urbanism, Romania

pana.radu@gmail.com

Architect, associate professor and Head of the Technical Sciences Department of "Ion Mincu" University of Architecture and Urbanism (since 2008). PhD in architectural acoustics (2007), interest in all Building Physics fields. Author and collaborator to research themes in the fields of acoustic comfort through architectural design, acoustic of spaces for audition, natural light and solar protection, hygrothermics and energy efficiency. Work in national regulations and standards. Author, co-author and team-worker of more than 30 projects for dwellings, offices, shopping centers and hospitals in Romania and Germany. Author and co-author of over 50 studies and projects in architectural acoustics and acoustical protection fields.

Marius Gabriel SMIGELSCHI

Professor PhD, "Ion Mincu" University of Architecture and Urbanism, Romania

smigelschi.marius@gmail.com

Architect, professor at the Technical Sciences Department of "Ion Mincu" University of Architecture and Urbanism.
Scientific research: Studies and design work in the fields of architectural technology and detailing, architectural acoustics and noise control, building industrialisation, energy conscious design, CAAD.
Architectural design: Author or co-author of about 27 realised buildings and about 35 building projects. Mainly housing, industrial, educational cultural and office buildings. Three of them were mentioned by the Union of Architects of Romania
Published works
• 6 university textbooks and documentary collections
• about 23 contributed papers to national and international symposiums and congresses (from 43 presented), 6 of them at International Acoustics Congresses

• about 380 pages of articles and documentary notes in the Romanian Review "Arhitectura"
• a book in two volumes "Designing facades with prefabricated units" Editura Tehnica 1982

Key qualifications
• architectural curricula and studies management
• organizing and carrying out architectural design and particularly technical projects
• consulting: Architectural Acoustics, Architectural Technology, Energy conscious Design

A Renewed Control Room For The Concert Hall Of Radio Romania

Radu PANĂ, Marius Gabriel SMIGELSCHI

Abstract

The T4S control room was at its origins, in 1973, arranged in an existent room that initially accommodated the preliminary acoustic studies on a mock-up of the concert hall and its main purpose is to monitor and record performances in the "Mihail Jora" Concert Hall of Radio Romania. After more than 40 years of continuous operation with no significant improvement, the control room was outdated from every point of view.

Considering the acoustical qualities and requirements, control rooms are completely different from the performance or audition ones. Not uniform richness of sound or envelopment is required, but the best hearing conditions of the sound coming from monitoring loudspeakers, for the listening position: the sound engineer next to its working console ("mixer").

The traditional and well known "stereophonic" recording system with two loudspeakers and the listening position arranged in an equilateral triangle is still the most used for recordings and radio broadcasting. A new system, however, is gaining more and more interest: the surround 5.1 sound system, consisting of 5 loudspeakers round the listening position, plus a subwoofer for low frequencies.

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T4S control room is intended for the first time in Romania, to have additionally a surround 5.1 recording system, beside the stereophonic one.

Firstly, a control room must be a quiet one. The building heavy concrete and masonry construction, structurally separated from the Concert Hall building, together with the position of the room insures the premises for that. It was only needed to add two gypsum panels with mineral wool, along the lateral walls, as sound isolation improvement.

The initial trapezoid form of the room and a modified sloping ceiling helped to avoid harmful room modes, but a complex geometric and wall treatments study was performed to ensure only the necessary sound reflections to reach the listening position. Especially early sound reflections, which reach the listening position within the first 15 milliseconds after the arrival of the direct sound, were to be avoided. The recommended reverberation time was around 0.3 seconds.

As in top level control rooms the monitor loudspeakers for the "stereo" system were built into the front walls, while the 5 + 1 surround loudspeakers are free standing on the floor. The "flush" mounting ensures that all the sound radiates in a forward direction. Usually the loudspeakers must be very solidly mounted in a massive wall, but considering the existent conditions, the front wall was realized in a very complex three dimensional drywall type system.

The walls acoustic treatments consist of a combination of resonant wood perforated panelling, porous absorption, and plywood panel absorbers, inclined at specific angles to control sound reflections. A special acoustic fabric lining unifies the aspect, also covering the entrance door. A large wood acoustic diffuser is placed on the wall opposite the speakers.

An innovative ventilation system allows the air to circulate behind the wall treatments, and through the perforations of the panelling and thus, no ventilation openings were visible.

The realization began with the isolating gypsum panels, the floor substructure and the complex loudspeakers wall. The wall treatments were then mounted from bottom to the top: the perforated panels, the mineral wool panels, and the plywood boards.

Before mounting the fabric lining, a first acoustic measurement ascertained that the effective reverberation times for middle and high frequencies were too high compared to previously calculated ones, and some more absorption was needed in the 630 Hz – 3150 Hz frequency range. The correction consisted in realizing large circular perforations in the plywood panels, in order to expose more mineral wool and to diminish the plywood vibration.

A second acoustic measurement confirmed the validity of the adopted solution, with reverberation times at middle-high frequencies of about 10% lower than before.

After the fabric lining was put in place, a final acoustic measurement determined the acoustic parameters of the room: a remarkable uniformity of reverberation times, less than 25 milliseconds around the 0.3 s recommended value for all but one third-band octaves in the 100 – 8000 Hz range; also remarkable was the spatial uniformity of the acoustic parameters within 11 reception positions in the room.

Together with the very good acoustics, the innovative concealed and quiet ventilation system, the dimmable low-energy LED lighting system and the refreshed architectural image make the T4S control room the "crown jewel" of Radio Romania.

Keywords: *architectural acoustics, room acoustics, acoustic measurements, control room*

Cristina HURDUC

assistant phd arch. urb. , "Ion Mincu" University of Architecture and Urbanism, Romania

constcristina@yahoo.com

Assistant phd arch. urb. at UAUIM, urban planning and architect at VAAL Arhitectura SRL

Architecture As A Factor That Determines The Urban Space Environment.Trends And Innovation

Cristina HURDUC

Abstract

Architectural objects, by their location and relation with urban space form assemblies and spatial compositions, which determines shaping and delimitation of urban public spaces (streets, squares urban squaruri, esplanade, promenade, cliffs, etc.). They organized and influences the perception of urban spaces and can define, determine or completes an environment of urban space.

Analyzing architecture as interface between inner and outer space is influenced by the evolution of technologies: construction, materials with which it is made. Along with volumetric concepts, with proportion of opening and closed surface of the facades, textures and envelope colors are directly related with periodic changes of innovation and experimentation, determine own picture and a recognizable character of an urban space.

The architectural space experiments were often are oriented towards acclimatization of the vegetation elements inside buildings with public functions, mimicking a natural landscape, bringing nature and effects taken from outer space (sound, smell, image, spatial organization) within the architectural object. But also the reverse experimentation happened: were brought into urban public spaces, furniture and design elements borrowed from interior design. This concept of "ur-

ban rooms" or the concept of "street" embedded in architectural volumetry were searches and themes catalysts technologies needed to achieve them.

For the future which can be the trends of using architectural elements in determining the urban environment?

The atmosphere of a city is decode, or read through perception of urban spaces representative ambience. These areas often have at least one representative building construction or assemblies, memorable, unusual and innovative. This architectural or urban space representation used in their process of achieving new technologies, materials and textures or new shapes.

Analyzing a chronological order, the pattern of innovation in contemporary architecture (Zaha Hadid, Tyo Ito, Shigheru Ban, Frank Ghery, Calatrava, etc.) and their effects on urban space that fits is an approach that can highlight the importance of design architectural defining urban areas.

Volumetric concepts and their relationship to environmental contexts in which they are, green facades, facade intelligent, types of architectural spaces, light and shadow effects, methods of combining several elements chromatic but also the technological methods of performing innovative construction are some topics that can browse to highlight the role of architecture in the determination to achieve a typical environment, personalized and features contemporary urban landscape.

Today worldwide assist in carrying out construction (projects) unique, different, which by their appearance aim to become tourist attractions and the representativeness of a country, region, places, communities or minorities.

Changing dynamics of urban space but also attrition of architectural objects and spaces involves a constant search for innovation in architecture, urban planning and landscape architecture based on new materials and technologies.

Architecture is the domain in witch interventions are made faster that in urban planning (due to private investments), often less expensive than in urban planning interventions (public projects, investments with several actors involved) and that through construction, renovation, refunctionalisation, rehabilitation or restoration design can significantly raise the quality of urban space, interior space and can restore economic efficiency of a place.

Keywords: *trends, urban environment, architectural innovations*

Vlad Ionuţ THIERY

teaching assistant, "Ion Mincu" University of Architecture and Urbanism, Romania

vladthy@yahoo.com

Professional affiliations: architect charted by Romanian Guild of Architects — OAR
Studies: I graduated the Faculty of Architecture and Urbanism of "The University of Architecture and Urbanism Ion Mincu" Bucharest in 2001
Current position: teaching assistant at the Faculty of Architecture from The University of Architecture and Urbanism "Ion Mincu" Bucharest
Issued articles:
• Arhitectura nr. 2 și 4/2011, 1/2012, 6/2013
• Arhitext Design 6/2013
• Argument nr. 4/2012, 5/2013
• Buletinul AGIR, Anul XIX, nr. 2 aprilie — iunie 2014
• international workshop "Empatia" http://www.tut.fi/en/empatia-architecture-and-empathy-international-architecture-workshop/lectures/index.htm

Novelty Versus Innovation

Vlad Ionuţ THIERY

Abstract

In a time when difference and individual expression are highly valued, oddly we are more and more part of a culture of copy. Due to the desire for originality, which comes from the need for immediate recognition, contemporary architecture is deeply marked by the endeavour to create unique objects and spaces. But the novelty that results, regardless the place or cultures where they are located, are so very much alike. Embarked on a feverish search for novelty and personality, contemporary architecture paradoxically generates clones.

By the architects' desperate looking for novelty and for objects intended to be unique but being in fact so similar, the public, overexposed to gleaming but meaningless images start to say "seen one, seen them all" and become apathetic. This way, architecture is loosing relevance in its relation with men and society.

The work deals with this deadlock architecture apparently have reached and searches for the reasons why this trend focused on new and unique features is depriving it of innovation. First the difference between novelty and innovation is shown. While novelty is generated in a problem solving process and is working within a familiar territory, innovation risks in consider a completely new approach to lead to a revolutionary solution.

Innovation is regarded in the realm of science, through the theory of scientific revolutions by Thomas Kuhn, but also through the art where the challenges of the old paradigm occur more often. While in the science innovation is determined by new discoveries that are in contradiction with the existing theories and the scientist's role is to come with a new theory based on experiment and intuition, the artist challenges the former style or manner to express himself / herself and to find a new shape of the zeitgeist.

In architecture, innovation is to be found in all the three vitruvian attributes of architecture. The history of architecture was marked by the innovation in structures, the distribution of functions or the aesthetics of the building. Although there were major differences in architecture from one period to another, the real innovation does not occur so often.

The contemporary trends ask for maximum of flexibility and an instant recognizability. In response, architecture is trying to generate buildings by processing measurable data through a rational and objective approach. This is due to a quest for producing flexible solutions, an answer to the complexity of a society in a constant transformation.

But the generating systems used in contemporary architecture produce, in most of the cases, structures that wishing so much for flexibility, come to be mere neutral containers with more or less spectacular shapes, unable to generate identity and transformation in the users' lives. So concerned to produce some flexible entities,

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architects neglect exactly the elements able to add value to the buildings they design.

The concept the architectural approach is usualy based on is intended to be the foundation of its legitimacy. This is why objectivity, which is believed to provide this legitimacy, is so dear to the architects nowdays. But the objective approach based on measurable data is likely to generate similar buildings for similar circumstances. Noticing this, it seems that architecture is trapped in a system that will generate novelty at best but is not able to allow innovation.

The extent architects will be able to give up the process of legitimating projects through objective but abstract concepts and to assume the risks of innovation will lead to further development, or contrary to the stagnation of architecture.

Keywords: *innovation, novelty, concept, objective, legitimacy*

Ştefan MIHĂILESCU

Arch PhD, Assistent, "Ion Mincu" University of Architecture and Urbanism, Romania

stef_mihailescu@yahoo.com

2004-2014 - University of Architecture and Urbanism "Ion Mincu"
Dr.Architect, Assistant
Lectures workshop, prof.dr.arh.Daniela Rădulescu-Andronicus, UAUIM
Member in the commission sketch drawings Depart.Sinteza Design
Member within the diploma committee, commission secretary
Research:
2014 -Participation at the International Scientific Session "Argument - Ambient sustainable" Organizer: UAUIM Bucharest, Faculty of Architecture, Design Synthesis Department, Location: Bucharest, Bucharest UAUIM 29-30 May;
2014 - Moderator for the Scientific Session phase # 1 - "Argument - Sustainable Ambient"
2014 - Author of the article / "Star architecture versus Sustainable architecture" / Argument 6/2014 "Argument - Sustainable Ambient";
2014 - Co-author of the article "Three case studies - a discussion on sustainable environment. London: City Hall, Swiss Re, the Shard" / Argument 6/2014 "Argument - Sustainable Ambient" Authors: S.Mihailescu, M.Mihaila, M. Zamfir;
2014 - Co-author of the article "Approach to detail from: architecture and education. Projects and exercises, year of study 4-5-6th, Faculty of Architecture", Scientific Session "Scientific Session Architecture detail, tradition and contemporaneity", Authors: M.Mihaila, S.Mihailescu;
2013 - Participation in International Scientific Session "Argument - Urban Experiments / Cultural Experiments";
2013 - Moderator Scientific Session phase # 1 - "Argument - Urban Experiments / Cultural Experiments" scientific session with international participation;
2013 - Author Article / "Sustainable Cities" / Argument 5/2013 "Argument - Urban Experiments / Cultural Experiments";
2013 - Participation in Scientific Session - "Space. Art. Architecture", National Symposium;
2013 - Author of the article "The human factor between technology and sustainability" Romhotel symposium

book "Landscape cultural.Arhitectura.Tendinte.";

2013 - Participant at the round table "European Cultural Capitals - attitudes and Decisions - architectures and spaces, Between tradition and innovation", by Marina Mihaila;

2012 - Participation in Scientific Session - "ICAR - Roumanian convention of architecture and design";

2012 - Author of the article / "Adding intelligence to green buildings" / ICAR - Roumanian convention of architecture and design;

2012 - Participation in Scientific Session - / "Sustainable Cities" / "Urbanism / Architecture / Construction";

2012 - Author of the article "Sustainable Development in times of crisis", in the newspaper "Urbanism.Arhitectura.Constructii" vol4;

2012 - Author of the article "Sustainability: Reducing energy costs in existing buildings" r Argument 4/2012-Upgrade-development by continuity;

2011 - Author of the article / "Thermal rehabilitation of residential buildings" / "Architecture and Technology";

Participation in Scientific Session 2011 - "Architecture and Technology" National Symposium;

2011 - Author Article / "Sustainability: Reducing energy costs in existing buildings" / Argument 4/2011 "Argument - Upgrade and development" - research periodical publication; 2011 - Participation in International Scientific Session "Upgrade - Development by continuity";

2011 - Moderator Scientific Session Phase # 1 - "Upgrade - development through continuity";

Sir Norman Foster - A Green Line Of Sustainability Through Star Architecture

Ştefan MIHĂILESCU

Abstract

" Since Stonehenge, architects have always been at the cutting edge of technology. And you can't separate technology from the humanistic and spiritual content of a building." – Foster N. (1999) BBC Radio interview in May 04.

Taking a very close look at the buildings completed in the last years, one can definitely come to the conclusion of those being influenced by three elements: new materials, the experience of new shapes, and the employment of some sustainability.

Today, Star Architects are called to bring more esthetic and practical value based on design knowledge, while mediating the relationship between the developer and the existing legal framework, not least for the publicity provided by their names.

Star architecture and sustainable architecture share the same moment when starting to be world wide known through the media, in the 1990s. From this point on, the two separate, although a number of elements that define sustainability are taken over by buildings searching to provide the status of star architecture. Unfortunately, the main expression that defines star architecture is novelty, and for such buildings the image is the most important element, so that on this image context fails to reveal its influence. Star architecture must stand out, there's no benefit when approaching an existing current, but on the contrary, it has to set up a particular movement, to generate new architectural canons. In terms of design, it is very difficult to relate to a given context when the focus is on standing out. This aspect largely justifies why star architecture slightly approaches the principles of sustainability, and when is doing it, only takes over those elements that are efficient, such as affiliation to energy certification programs.

Between the two types of architecture we found totally different approaches, in the same time we found that are conceptual separation and still some directions of integration by components. I have reasearched the approaches the architect Sir Norman Foster with his steady course towards an architecture with its own identity, with a great force of expresion and we found the constituents of a sustainable approach as a green thread running through the entire portfolio of great buildings. An example of this fact is the following series of buildings that integrate large area of greenhouses on several floors of office space and the natural environment: HSBC Building (Hong Kong), Commerzbank Tower (Frankfusrt) and 30 St. Mary Axe (London).

By studying the contest for the office building at 425 Park Avenue, I found a very interesting fact: even the investors were coming to appreciate a sustainable approach that is supported by the great care for the building users. Between images

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and graphics with a maximum force, the latter option was oriented toward the proposals that focuses on a good relations between interior spaces, good lighting and abundance of public spaces. I believe that this example is promoting a new element, namely the increased interest of investors for a well "inhabited", "experienced" and used, linked to the sustainable design of buildings.

One thing that clearly defines architecture is the abbility to bring innovation into a wide domain and to keep up with the ideals of the society holding it. Theory is always the core of innovation, developed as a basis for the architecture design, theory that is found both in star architecture and sustainable architecture.

As a conclusion, "ultimately, clean energy is less energy. Alternative-energy alchemy has so greatly consumed the public imagination over recent decades that the most vital and durable environmental essentials remain overlooked and underfunded." (Zehner, 2012 p. 341)

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Keywords: *star architecture, sustainable architecture, technology, space, light, relations*

Simona BUTNARIU

Teaching assistant phd, "Ion Mincu" University of Architecture and Urbanism, Romania

butnariu_simona2000@yahoo.com

Present position:
Teaching assistant at Urban Design and Landscape Architecture Department of UAUIM, Bucharest
Education:
Doctor's Degree in Urban Planning at UAUIM, Bucharest
Graduated as architect at UAUIM, Bucharest
Professional Memberships:
Member of RUR - Romanian Register of Urban Planners
Member of OAR – Romanian Order of Architects
Professional activity:
Independent activities in architectural design and urban planning projects
Co-ordination and colaboration on behalf of UAUIM of large-scale project and urban planning projects

Hypermodern Continuity

Simona BUTNARIU

Abstract

Argument: Experiment replaces tradition and popular culture develops a thirst for novelty. Progress is continually sought, yet constantly questioned and undermined. More paradoxically still, the seemingly unstoppable forward trajectory of modernization results in nostalgia – if not an overt longing for the past, then a formless regret and a melancholy feeling that something of the world has been lost. And this, in turn, feeds in to changing aesthetics and conceptions of beauty.

A new paradigm wins the fields of architecture and urban design, the paradigm of a solid space that can no longer sustain the flows but it incorporates them in it's actual substance.

The english critic Jeffrey Kipniss (1993) describes this new paradigm: a change from continuous heterogeneity in heterogeneous continuity.

Contemporary urban and architectural project examples show the variety and diversity of approaches already found a common principle: that of hypermodern continuity.

In this continuity hypermodern challenge: many corners became round, vertical buildings carcasses became slopes, floors and slabs were held in ramps negotiated between public and private, between longitudinal and three-dimensional.

The study cases presented builds this current urban design concept similar concept as existing in industrial design technology which is called: seamless, ie one-piece, seamless.

The worldwide success of industrial design Apple MacIntosh was to this area that deletes all thresholds or discontinuities, the object being filmy plastic single hide all the complexity and multiplicity of its components. Technical performance thus opened container assembly in an unlimited sway these smooth surfaces without boundaries and edges.

This concept of continuity has been taken over and in architecture and urban design. In many of the projects analyzed, concept design focused on incorporating all the technical and structural elements in one area and multiplied the idea of eradicating all differences inherent in conventional systems.

This ideal of the hypermodern continuity was found in the transverse dimension of the street. This dimension is found concentrated in the image of the urban plinth, forming relationship between building and street's pavement. Often, the urban plinth boarding the street forms a continuous surface with horizontal level of the street's pavement, a two-way overlap, the street going into the building or the building going out into the street.

Based on this concept further study will attempt to identify several ambiences characteristic of the contemporary urban design street.

Keywords: *urban design, urban ambiance, social interaction, streetscape, continuity, hipermodernity, connectivity*

Giulia SANTARELLI

Engineer, Ph.D. in Building Engineering—Architecture, Sapienza Univerity of Rome, Italy

giulia.santarelli@uniroma1.it

Giulia Santarelli (Rome 1981), engineer, Ph.D. in Building Engineering—Architecture. She performs research in Architectural and Urban Composition at the Faculty of Engineering at Sapienza University of Rome. Her research concerns the field of living in emergency conditions, focusing on structures, materials and forms for light and temporary housing. She has presented the results of research at international conferences and she has published related articles. She conducts didactic activities and she is supervisor of degree thesis for the Master of Science of Architectural Engineering. She is expert on the Subject "Architecture and Architectural Composition". She has participated in design competitions. Her professional activity concerns the structural and architectural design.

Lightness In Architecture: New Structures Made Of Natural Fiber Reinforced Bio-Plastics

Giulia SANTARELLI

Abstract

Nowadays we can observe a paradigm change: the research for lightness through structural innovation replaces the concrete, massive and heavy traditional architecture.

Experimentation is the development's lifeblood, the starting point of the design process to go beyond the traditional construction made of reinforced concrete or steel and to investigate new structural materials, ever lighter and performing, but also economic and sustainable, as bioplastics. This is the focus of the reflection proposed, within a wider discussion pertaining to the theme of innovation in construction and sustainable design.

The plastic – the most used and wasted material of the contemporary time – is used for everyday objects, sculptures and works of art, but can become also a building material. Thanks to its lightness, durability, insulation property, and great range of applicability, this material is now widely used in architecture.

The first experiments in architecture date back to the Sixties, when the plastic became the protagonist of the design, assuming an aesthetic and formal dignity.

In order to increase the mechanical strength, the technological and scientific research has developed special composite polymer thanks to the associating of the polymer matrix with a fiber glass or carbon component. This process ensures high mechanical resistance value, comparable to the one of steel.

The material's structural efficiency if appropriately shaped and its malleability let the designers imagine curvilinear panels to realize futuristic transportable house: the symbol of a new way of living.

In this way, it is therefore to outline a new formal language suitable for those properties, that makes the fiber-reinforced plastic an excellent building material.

On the other hand, the carbon fibers costs are still too high and limit their use in the practice of construction.

The free forms of a creative bus station built in 2003 at Hoofdoorp in Holland with polystyrene structure, the prototype of an innovative building - Carbon Tower – made of CRP (carbon fiber reinforced polymer) and standardized and repeatable structures made up of modular GRP (glass fiber reinforced polymer) panels, are just some of the many expressive possibilities of plastics. In fact this material is malleable and configurable according to the different needs, following an always new creative process.

The excellent insulating properties, along with the moisture resistance, make this material appropriate for facades and window frames, ensuring observance of energy standards. Moreover the versatility makes fiber-reinforced plastic suitable for creating opaque or transparent structural and insulating panels.

Still too expensive for a cheap building, currently the most numerous and daring

experiments regarding the use of GRP with structural function include the construction of industrial buildings and pedestrian or carriageable bridges. In fact, in this case, the advantages accruing from it, offset the initial costs.

Nowadays, more and more attention to the environment and the product's sustainability has encouraged the scientific and technological research, supported by manufacturers, toward the use of renewable and recyclable materials in the composites production.

This biodegradable plastic derived from biological substances, rather than from petroleum, is characterized by mechanical, breaking and abrasion strength comparable to those of conventional synthetic materials.

Furthermore it is possible to use vegetal fibers in replacement of those of glass or carbon. This allows to obtain composite materials with high performance and low cost, therefore suitable for mass production.

The research concerning ecological materials has numerous and innovative outcomes; for example bio-plastics produced from corn flour or linen and cotton or biological waste and reinforced with carrot fiber.

From automotive manufacturing to industrial design, the bio-composites' diffusion is becoming increasingly important.

The malleability, lightness and strength, for example, have guided the choice of Danish architects 3XN to use this ecological materials for the construction of a pavilion for the exhibition "Future" at the Museum of Modern Art of Louisiana. Flax fiber mixed with corn starch and soia oil constitutes the raw material of the thin green ribbon that, wrapping around itself, becomes structure, sculptural art work and sitting at the same time.

Although the main uses concern the automobile's production, the electronic and the everyday objects, the application in buildings field - considering the high mechanical strength – is becoming a possible perspective.

The low density of the natural fibers and the high load-bearing capacity allow to obtain construction elements considerably lighter when compared with the glass

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fiber reinforced ones. This weight reduction, if compared to conventional polymers, also implies a decrease in consumption.

The use of vegetable raw material allows both to obtain recyclable products compared to those of petrochemical origin and to access a wider segment of the market thanks to the low cost.

Today, the use of bio-composites reinforced with vegetable fibers opens new perspectives not only from a technical and constructive point of view but also aesthetical and formal one, for the transformation of the built environment and for the development towards a lightweight, sustainable, recyclable and low cost architecture.

Keywords: *Innovation, experimentation, bioplastic, lightness, sustainability*

Mihnea DRĂGĂNESCU

PhD C, urban planner, assistent professor, "Ion Mincu" University of Architecture and Urbanism, Romania

m.mdraganescu@gmail.com

Mihnea graduated from the Ion Mincu University of Architecture and Urbanism in 2008 and is currently a PhD student and a teaching assistant within the mentioned institution. He first started working for a small local practice in Barcelona, then for several practices in Bucharest, either as a full time employee or on a collaboration contract basis. His greatest career development however began in April 2008, when he started working for one of the largest architecture practices in Europe and got a real insight not only on architecture and urbanism, but also on business strategy and organisational management. The projects he worked on vary a great deal, from small scale individual housing units, to Class A office buildings of big dimensions, public buildings such as hospitals and shopping malls, airports and museums, mix use development masterplans, urbanism and landscape design projects and studies. Mihnea's current interests vary as well, from teaching, architecture, master-planning, landscape design and sustainable development, to business management and strategy. He is currently trying to demonstrate the unbreakable link between the built environment and the landscape it is housed by in his PhD thesis and striving to achieve a set of rules and guidelines for designing buildings and cities with little impact on the natural surroundings. He was accepted to take part in either one of the two more prestigious MBAs in the world: London Business School MBA and IESE Business School MBA, being granted a cost funding, based on his GMAT high scores and his experience in the field of work.

Heat Islands On The 45th Parallel North

Mihnea DRĂGĂNESCU

Abstract

In the context of ever higher urban development in the past 100 years, the vertical trend of city planning, the increase in anthropic areas and the continuous need of more and more urban space, man's activities are felt not only on a visual perceptible level, but also in a climatologically geographical context that the specific areas are part of. As any relation, of any sort, this is a multifocal one.

Thus, man leaves his footprint on nature and nature, in return, reacts.

Apart from the obvious and relatively fast actions that vary from landslides to the lack of soil productivity, nature's reactions to human activities can be unperceived instantaneously. These reactions are felt in time and often cumber the human activity set up for a particular spot, on various levels. One of these reactions is the climatic change, more obvious in urban agglomerations, where human activities are concentrated and have their toll on the environment.

Undoubtedly, one of the effects of human activity – in any natural environment – is, as nature's response, the warming of the aria occupied and affected by humans. It has been proven repeatedly, by various studies, that an urban area is warmer, literally, than its adjacent untouched surroundings. The causes, already studied and known, vary from typical human activities to – paradoxically – the lack of a good enough landscape design within cities. Therefore, an urban area, in the worst case scenario, can be up to 30 degrees C higher than a virgin one in a similar area. The difference in temperature only translates into more power usage, resulting in ever more heat island effect.

We have to realize the fact that humankind – with the help of its technologies – is in the middle of inverting in just a few hundreds of years a process that has taken 500 millions of years to come to life. We are depleting our coal and oil resources approximately 2 million times faster than it took for them to be born and, as a consequence, not only are we exploiting nature at a pace never seen before, but we are also creating an experiment with unforeseen results.

Our duty as architects, master planners and landscape designers goes far beyond planning for less energy consumption on a medium term, it goes as far as responding to an environmental crisis that has already shown its beginning. In order to leave behind us a world in which the future generations would choose to live, the clear message that we have to send out is: LESS IS MORE!

Therefore, I considered of utmost importance the comparison of several cities situated on or close to the 45th parallel North in respect of their behavior as heat islands, in order to find their common denominators and to achieve a set of rules and guidelines in planning either singular buildings or entire cities that have little or no impact on the natural environment they are set in.

The cities chosen for the study are Chicago and New York, in the United States, Bordeaux in France, Bucharest in Romania, Urumqi in China and Sapporo in Japan. They are all placed on the 45th parallel North and, theoretically, should have the same climate characteristics.

The conclusions the study has revealed are somewhat surprising, as they reveal the fact that not only the human activities in cities (such as industry, car traffic, air conditioning and so on) are to blame for the higher temperatures, but also – and even more so – the lack of attention paid to the natural environment and the benefits it can bring when planning.

Keywords: *heat island, landscape, environment, energy*

Raluca BOROS

PHD.CANDIDATE ARCH., "Ion Mincu" University of Architecture and Urbanism, Romania

raluca.boros@yahoo.com

Graduated Architecture at the University of Architecture and Urbanism "Ion Mincu" in 2008 arch Raluca Boros (1983, Bucharest, Romania) is a PhD candidate passionate of Sustainable architecture and ecological buildings. She is an Assistant Teacher of architectural design at the University of Architecture and Urbanism, "Ion Mincu" and also founder of ROOF ARCHITECTURE studio.
She is very passionate about teaching and has organized and participate in numerous workshops. She is also coordinating the study trips abroad for many years.

Diet Coke And Sustainable Building Materials

Raluca BOROS

Abstract

On every market available there is a full department of packages that scream out in capitals what their content does not include: LOW FAT, LOW CARBS AND NO SUGAR! It is far more expensive than the same food marked as "normal".

The same market hysteria has taken over the building material market these days. You can't sell anything unless is being described as "ecological". The marketing of anything regarding building from site management to utilization is trying to treat us as we are dieting people in order to take some "emotional decision" instead of "rational decision". Nevertheless architects fallowed the trend and created some projects that pretend to be ecological, nearly zero energy consuming and sustainable all at the same time.

The number and types of materials and products called "sustainable" is growing more and more each season. But which one of them is truly a "sustainable" product?! What is the criteria that defines the characteristics of a project or of a technology as labelled ecological?! Today we still have no set of clear and strict laws and methodology commune agree in order to label a product or a house. This research talks about evaluation methods, standards and lows that define the development of sustainable products. The proposed paper aims to ilustraste that we need a second look at what the market sells us as ecological and it is our responsibility as architects to use the Wright products and technologies along with the best design.

That is the reason why we need to analyse the products embodied energy and to think the design as a product from cradle to cradle.

The new theme of the third millennium implies the role of the architecture in our society. This paper aims to span through all levels of a project, from design to site management, from materials to maintenance of the buildings through mechanics and construction technologies. As a new party, the social dimension completely embraced the way we design the spaces. The relationship between architecture and environment and all components has become a major subject surrounding both civil and academic world. The subject has a very juicy content because it covers not only the design of new buildings but also the restoration or the re utilization of buildings.

Keywords: *ecology, cradle to cradle, marketing, sustainability, embodied energy.*

Ana Maria CRIŞAN

lecturer Phd. , "Ion Mincu" University of Architecture and Urbanism, Romania

ami.crisan@gmail.com

Ana Maria Crișan (born 1979) is an architect currently living and professing in Bucharest, Romania. A.M.C. is a lecturer at Ion Mincu University of Architecture and Urban Planning in Bucharest teaching in the Synthesis Department, Integrated Master. With a PhD in architecture, A.M.C. has a thesis that treats the mechanics of visual translation under the title of: The Anagram of the Imaginary Architecture. Metamorphosis - Revaluing the Time Paradigm in Architecture. Her field of interest is in the area of interdisciplinary research of fundamental architectural influences, with analytical roots in written or visual expressions such as: literature, painting, cinema and photography. Within the past 10 years, the architect developed a research curriculum starting from the notional construct of travelling as a formative tool, with several workshops in Italy, Turkey and Greece. A.M.C. has a sustained academic activity that focuses on architectural critique, with a continuous presence in conferences and seminars. Additionally, she's a regular contributor to the professional magazines: Arhitectura founded in 1907, and Arhitext. Complementary A.M.C. works as an associated architect and project manager at the design office Crisan Architecture & Engineering since 2005, a professional practice recognized by several national and international prizes and nominations. www.crisanarch.ro

Origins. Roots Of The Modern Architecture Vocabulary In The Italian Peninsula

Ana Maria CRIŞAN

Abstract

The paper treats the reactivated subject of the modernity from the particular perspective of the vocabulary process mechanics. Following the intrigue established by Rem Koolhaas with the occasion of the 14th International Architecture Exhibition of la Biennale di Venezia, in September 2014, the Fundamentals of architecture are rediscussed from the theoretical perspective. As R.K. stated "Fundamentals looks at histories, tries to reconstruct how architecture finds itself in its current situation, and speculates on its future."

Starting from the premises of Monditalia Exhibition, the analysis relies in reaffirming the Italian Peninsula as a unique areal, a universal library of historic examples taken in whole or in part and reinterpreted in the modern and contemporary architecture. As stated in numerous times by the father of modernism, Le Corbusier, the Peninsula is more than a geographic determined area, it is the land who inspired the famous five principles of the Modern Language. The study area is case restricted by cumulating the points recorded by the architect in his travel journals with the correspondent stylistic objectives. Consequently, the methodology starts from the theoretic archives linking the mentions from journals and articles to the root elements. The basic references were considered the statements in L'art d'aujourhui Decoratif, L'Esprit Nouveau, Vers une Architecture, and the thematic exhibitions organized under the aegis of the Fondation Le Corbusier, the specific session Voyage d'Orient 1911-2011, and Le Corbusier's Italy organized in Rome, Maxxi museum.

Thus aim is to underline basic vocabulary of the Modern architecture language and to discover the origins of the Elements in the old Italian constructed expressions. The final challenge resides in redefining Fundaments as universal intrinsic values or desiccated fragments, in an attempt of better understanding of the modern and contemporary architecture language mechanics.

By understanding the evolution of the modern vocabulary at the larger or smaller scale and in a specific point, we approach the globalization of the information from a different perspective. The results have a large implementation frame in order to orient the educational process towards an active assimilation and a responsible future creation.

Thus, the study builds itself as an active exercise of the famous L.C's Journey to the East, a story rooted in the past and with currently reflexes, a story about the architectural objects seen beyond the observer's temporal affiliation. Finally, the Modern architecture language quest for origins is a similar time travel as the one provoked by Rem Koolhaas in Monditalia exhibition a story about the creative adaptation and the progressive imagination.

Keywords: *modern architecture origins, modern vocabulary elements, architecture roots, Italian Peninsula, Fundamentals, Monditalia.*

Alexandru CRIŞAN

lecturer Phd. , "Ion Mincu" University of Architecture and Urbanism, Romania

almcrisan@yahoo.com

Alexandru Crișan (born 1978) is an architect currently living and professing in Bucharest, Romania. A. C. is a lecturer PhD at Ion Mincu University of Architecture and Urban Planning in Bucharest teaching in the Synthesis Department, Integrated Master. His field of interest is in the area of visual expression, relating by research art, architecture and photography.

A.C is a regular contributor to the professional magazines: Arhitectura founded in 1907, and Arhitext, signing different covers and illustrating articles. Complementary A.C. works as an associated architect and project manager at the design office Crisan Architecture & Engineering since 2005, a professional practice recognized by several national and international prizes and nominations. www.crisanarch.ro

Ana Maria CRIŞAN

lecturer Phd. , "Ion Mincu" University of Architecture and Urbanism, Romania

ami.crisan@gmail.com

Ana Maria Crișan (born 1979) is an architect currently living and professing in Bucharest, Romania. A.M.C. is a lecturer at Ion Mincu University of Architecture and Urban Planning in Bucharest teaching in the Synthesis Department, Integrated Master. With a PhD in architecture, A.M.C. has a thesis that treats the mechanics of visual translation under the title of: The Anagram of the Imaginary Architecture. Metamorphosis - Revaluing the Time Paradigm in Architecture. Her field of interest is in the area of interdisciplinary research of fundamental architectural influences, with analytical roots in written or visual expressions such as: literature, painting, cinema and photography.

Within the past 10 years, the architect developed a research curriculum starting from the notional construct of travelling as a formative tool, with several workshops in Italy, Turkey and Greece. A.M.C. has a sustained academic activity that focuses on architectural critique, with a continuous presence in conferences and seminars. Additionally, she's a regular contributor to the professional magazines: Arhitectura founded in 1907, and Arhitext.

Complementary A.M.C. works as an associated architect and project manager at the design office Crisan Architecture & Engineering since 2005, a professional practice recognized by several national and international prizes and nominations. www.crisanarch.ro

Tradition And Innovation Face To Face. An Applied Study On Micro-Vernacular Architecture Vocabulary In Dobrogea

Alexandru CRIŞAN, Ana Maria CRIŞAN

Abstract

Do we gaze with understanding to our legacy or do we pass unaware along the vernacular? Can we still learn from our traditional architecture in the times of contemporary development and in the era of high technology? And, finally how do we build? Those are some of the essential questions of the last centuries, analytical questions which are putting in balance tradition and innovation, design and awareness.

The present study approaches the vocabulary of the traditional architecture in the Dobrogea area, from two different perspectives. The first view exposes the timed confirmed value that resides in the vernacular architecture, as a language resource for further durable operation in traditional urban tissue. The second perspective treats the same vocabulary elements as basic models in order to develop contemporary elements, capable of extended performances, but inscribed in the same linguistic family. The two perspectives tend to be complementary, basing their observation and processes on the same methodology: observation, inventory, design and ultimately reconstruction. The main study base consists in the extensive archive of Dimitrie Gusti Dobrogea - Memory of the earth, and the one to

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one scale models of the vernacular architecture originated from Dobrogea area.

The analysis main goal is to develop an applicable sustainable approach based on design awareness. The study restricts the analysis to the basic elements of the architecture: the closings (walls, roofs), the openings (doors, windows), the supportive isolated elements (pillars), in order to establish a small scale, a micro scale. This particular approach ultimately has a larger applicability, speaking beyond context about the human scale and its immediate correspondent. As finality, the traditional models are re-analyzed, in focusing their ability to be considered prototypes along with the implementation challenges. Thus, the detailed design of the basic vernacular vocabulary is reevaluated. In order to avoid the simple mechanism of flat interpretation by copy / paste, the design is oriented towards conscious borrowing and active reinterpretation.

In past times the traditional sustainability was a natural effect of the continuity of architectural language: types, materials, textures, colors, but paradoxically the contemporary seeks avidly for sustainability as an artificial injection. The detail in vernacular architecture is seen primarily as a living detail: a detail transformed in time by the Romanian peasant due to in situ observation. This "living property" resides in the natural materials: wood, hay, clay, soft, transformable materials with minimum energy and reduce local labor force. From the harvesting of the reed in marsh, to the processes of the drying mud brick and finally to the walls waterproofing by sticking with clay, all processes in traditional architecture have a common ground.

Ultimately the analysis points out that in this "living" property resides the genius of the detail. The materiality and texture of the vernacular becomes in this perspective the support for sustainability, durability and ecology, main aspects of a responsible design.

Keywords: *vernacular architecture, tradition, innovation, Dobrogea - Memory of the earth, sustainability, detail, model, vernacular architecture models.*

Ana-Maria GOILAV

PhD , "Ion Mincu" University of Architecture and Urbanism, Romania

anamariagoilav@gmail.com

The School Of Buneşti

Ana-Maria GOILAV

Abstract

The more comfortable and sophisticated life in the city becomes, the greater our need for simplicity. „The essential joys" remain the primordial joys. The Bunești workshops do not offer an alternative to the sedentary urban living, but instead build structures that invite to a complementary trial of minimal, ascetic dwelling in the heart of nature. Their concern is the architecture of shelters and of the minimum necessary. The simplicity cultivated at Bunesti is a way of life. Its courage is radically different from the sensual comfort of modern minimalism.

The Bunesti School started in the summer of 2008 in a beautiful meadow along

the Valsan river, Arges county, with a construction site - lesson. It is no wonder that the architecture practice was the one which brought together the first students and professors. The building was subjected to the idea of a living community with unpredictable and ever-changing relationships.

The Bunesti meadow is a big salon under the open sky where the life of a school runs its course, a free plan of floating places, gathering points of the community that correspond to self-supporting structures of extreme concision: monostructures.

The monostructure implies the complete identification of form, space and structure by using a single material, a single technique or a single construction principle, from the foundation to the cover.

Natural materials are used exclusively: wood, clay and stone. Putting them into practice is the major research and innovation theme. This structural purism which corresponds to an ascetic expression allows the dwelling to tend to a monolithic housing sculpture.

The Monostructure is a meditation upon the part and the whole. The instrument of this meditation is the module.

Through its camouflaged materiality, monochromatic and mimetic, the construction merges with the site.

Monostructures are pure forms, controlled by classical proportions, impregnated by the symbolism of numbers.

Monostructures are placed cardinally and with respect to light, according to their purpose.

The School of Bunesti consists of large-scale household objects, handmade, spatial up-scalings of the bed, the table and the chair, which become places for sleeping, meals and discussions. The world of these primordial structures is strictly dependent on the human scale – anthropos methron.

The architect – apprentice does not intend to produce something new, but to create. He is "under obedience" to the natural building material. He is an apologist

of the living material, in raw state, which he puts to the test, whose constructive energies he discovers only to let himself be led by them in the act of building. The architect – apprentice is not a craftsman but a structural engineer and a builder. The making process can be reversible. The Bunesti meadow became a workshop for study models in scale 1:1, where execution details are born from experiment. The building site is a vitruvian school. The architect can never know how the structure he is building will look like in every detail. Starting from a given working theme, the means are discovered and enriched along the way.

The inspiration sources are at the same time masterpieces of the constructive technique and of the formal purity of premodern architecture, where the natural building material is sovereign. For stone, we turn towards Armenian and Syrian architecture, for brick we look into Roman imperial architecture, for wood into northern architecture, for earth into Mesopotamian and Arab architecture. To all this we add the Romanian village heritage. This syncretism aims for No Age uniqueness.

The School of Bunesti recalls first of all one of the meanings of the Ancient Greek word "schole" – "spare time", and further on, the release from time, going out of time. To build out of stone, wood and earth means to remember the beginnings, the shelters of archaic societies, eventually to recognize Heaven. Building is craft and craft comes from revelation.

In the long vigil of arts and architecture, facing the inflation of eclecticism in reinforced concrete, glass and steel and of rustic mannerism in stone, wood and clay, the ultimate creation of the School of Bunești is not the house, but the man. The contemporary man, who reproduces the ancestral gestures of building, who practices architecture as "schole", as existential hobby, got into the old craft of thinking and feeling, of rejoicing. The architectural experiment places the construction back into the builder's hands. The house makes the man.

Keywords: *architecture school, alternative education, rural development, monostructures, natural materials, ecology, comunity*

Lina AHMAD

Assistant Professor, Zayed University, United Arab Emirates

lina.ahmad@zu.ac.ae

Holds a Master Degree (MArch) from the Architectural Association School of Architecture in London. She has over 10 years of professional experience across different sectors and project stages; ranging between design work, from proposing alternate schemes as well as detailing and executing architectural packages, to participating in projects' execution and site supervision. Within academia, her work has been awarded and exhibited, including a contribution to the exhibit material for UAE's first National Pavilion at the 14th International Architecture Exhibition at Venice Biennale. She is also the recipient of the Architecture + Cityscape Awards 2003, "Designing for a new world", under the category of 'Aspiring Architect'. Currently Lina holds an Assistant Professor position at Zayed University, Abu Dhabi.

Cellular 'Network' City

Lina AHMAD

Abstract

Group research study conducted in 2008 at the Architectural Association School of Architecture, London with the two-team members: Junkai Jian and Jinqi Huang.

With over half of the world's population now living in cities, global urbanisation is developing at unprecedented rates, scales and densities. This study aims contesting the perpetuation of urban design, techniques which it considers incapable of managing the immense and relational logic inherent to vast cities undergoing accelerated change.

The twenty-first-century city embodies extreme qualities of complexity of interaction, communication and exchange – and in fact, large cities behave parametrically and dare the expression of associative systems and networks.

Parametric Urbanism addresses the ways in which associative design systems can control dynamic information to effect and adjust larger urban and global life-processes, embedding intelligence into the formation, organisation and performance or urban spaces, uses, activities, interfaces, structures and infrastructures.

Taking the past Shanghai 2010 Expo as a case study and seriality as a theme, the forces of standardisation and homogenisation of urbanism are challenged – seeking new modes and models of urban organisations. The city is understood as mathematical expressions of global and local regulations, codes and policies, played out parametrically in time, continually shaping the spatial relations of parts and wholes. Computational tools were pursued with capacities to manage high order of complexity, experimenting with new forms of iterative graphic space – dynamic pattern formation with continuous yet discrete cellular spatial properties – generated from associative modelling and algorithmic procedures.

This proposal illustrates an engagement with a broad range of scales and topics of experimental design, including the modulation of urban and architectural spaces, structures, systems, and components, while investigating new, softer, aggregate and incremental models of control of urban growth, densifications, evolutions, transitions and distribution – in both vast and infinitesimally small increments of space and time.

The proposal has two folds: firstly a prototypical Urban_Expo for the past Expo 2010, as well as planning for several possible futures for the legacy of the site after 2010, proposing a new civic, cultural and consulate core for Shanghai.

All ancient, historic and contemporary cities order spatial, geometrical, distributive hierarchies with subdivision techniques. In response to this observation, an urban cellular network is proposed to configure thick, deep and 'multiplicitous' urban ground strata for the Expo 2010 and to endure beyond. The spatial cells and connections are proposed to extend laterally across the site and to grow vertically in a series of new iterative tower typologies that define a coherent yet differentiated organisation of sectional movement in a diversity of scales, densities, heights and programmatic 'mixities'. Various site-scaled systems are coded with specific rules of growth and expansion configured from straight-line segments to articu-

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late gradual spatial transitions and subdivisions with a segmented mathematical approach to the formation of curvilinear spaces and structures. Curved surface modules are controlled locally within bounding discreet volumes and are arrayed serially at various scales to form aggregate building structures, space dividers, and porous façade systems achieving high orders of organisational complexity resulting from simple local rules.

Keywords: *subdivision algorithm, Parametric Urbanism, Modular Systems in Architectural Space*
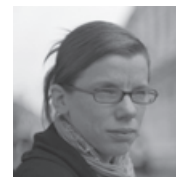
Letiţia BĂRBUICĂ

PhD, "Ion Mincu" University of Architecture and Urbanism, Romania

letitia.barbuica@headmade.ro

Suprematism Becomes Architecture

Letiţia BĂRBUICĂ

Abstract

Hadid was always "wanted to open a door to a world that had yet to be invented" [1] hence her commitment to innovation and experiment. The paper traces her beginning in exploring the new and ignoring any architectural precedents, starting with her diploma project (1977). The interest in Suprematism is marked by her experimental diploma project in which she transforms Malevich's Architecton (1923) into a functional bridge - Museum of the XIX Century- to connect the two embankments of Thames, over the Hungerford Bridge. The report of her professor at the time, Rem Koolhaas, is eulogistic as he envisage his student incredible trajectory within the world of architecture: "Now she is a PLANET in her own inimitable orbit. That status has its own rewards and difficulties: due to the flamboyance and intensity of her work, it will be impossible

[for her] to have a conventional career." [2]

Thus, starting with her diploma project Hadid transforms Suprematism into architecture. Suprematism becomes architecture. A series of connections, a constant pursuit that traces back to Suprematism become apparent in her architecture even up to 2011 with her CMA CGM Headquarters Tower in Marseille.

Suprematism is the promoter of abstract visions and Malevich entails the brake from any mimetic forms, from any inspiration related to nature. To the mathematical mind of Hadid [3] this was very seductive. Her interest in Suprematism might not be always too explicit in her projects and buildings, but the significance of this art movement in her own architectural world is shown in an exhibition that she organised for Guggenheim Museum, NY, in 1992: "The great Utopian: The Russian and Soviet Avant-Garde 1915-1932." The exhibition is a tribute to Malevich. In 2010 she organised yet another exhibition in Zurich where she juxtaposed her buildings on the background of suprematist creations by Ilya Chashnick, El Lissitzky, Kasimir Malevich, Alexander Rodchenko and Nicolai Suetin, highlighting once more the invaluable vein of her architecture.

Her approach to put together architecture and art – 50 years old Avant-garde art – is unique. By doing so Hadid is recovering the emotional and oneiric touch that architecture lost during Modernism in exchange for utility, full readable use of the building, the so called honesty of the building. Hadid dared to challenge the architectural culture in a similar way in which Suprematism challenged the institutional art of the time. And by doing so she liberates architecture and the architectural image.

The continuity of her unparalleled approach and the time span of over 35 years of work in this architectural and art laboratory proofs not only the solid vein that she had found in Russian Avant-garde, but also her resilience and persistence in her architectural research. Thus we can say that Hadid created, based on an invariable concept-base, an incredible diverse and variable architecture.

[1] Ruth Pelthason, Grace-Ong-Yan (eds), The Pritzker Prize Laureates in Their Own Words,

2010, Thames & Huston: London, p.90, apud Vinny Lee, The Times, April 19, 2008.

[2] Andrew Higgot, Mediating Modernism: Architectural Cultures in Britain, 2007, Routledge, N.Y., p.173.

[3] Hadid graduated Mathematics at the American University from Beirut

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If it is to translate the utopia of the architecture realm, it is synonymous with boldness, innovation and imagination: technology, hyper-nature, neo-ecological obsession, social artifact, fluid virtual enviroments or virtual transports are invoked in order to solidify the bridge between the critique of the present and the curative visionary project.

Silviu Aldea, 2012

Currently, the architectural discurses generally start from the contemporary society premises. It is about the society that we live in, about the communicational, computerized society, about the architecture that must to give answers to the society requests.The terminology used is not randomly and derives from the actual trends-computerization, virtualization, spectacularization, consumerism, secularization, urbanization, the globalization process, obeying to ephemeral and of delocalization effects. Are also added the global climate change, the unprecendent environmental destruction, the gap between rich and poor, the dilution of community concept. Thereby, the present reality can often be difficult to face it and architecture try to give answers, assuming new conceptual fusions.

Today the space arises from utopias, heterotopias, dystopias rather defining itself by criteria of intermediaton. The context of research in architecture is fruitful and may shape different forms of expression, un-built projects or studies, unpublished or in-process research, architecture books, event related to interventions or participation, competition entries or workshops description.

Searches are different, conceptually rich and try to discover other kind of relationships between image and practice, permanently weighing the social impact over a post-postmodern society.

Assist.Prof. Mihaela Zamfir, Arch PhD, Assistant Chair of Section 3

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Andrei POMANA

arch, "Ion Mincu" University of Architecture and Urbanism, Romania

andrei.pomana@gmail.com

Andrei Pomana is a master's degree graduate in architecture at the Faculty of Architecture, "Ion Mincu" University or Architecture and Urbanism, Bucharest. His recent research work revolves around autistic friendly environments and methods to achieve autistic integration through the use of built environment. As a student, he took part in numerous research projects such as "Eau Comme Patrimoine" and "Rosia Montana 360".

Architecture For Autism. Improving Designs For Autistic Integration

Andrei POMANA

Abstract

Autism is regarded as the most severe psychiatric syndrome of early childhood. Because the disease cannot be fully treated, the autistic child becomes the autistic adult, its future condition depending on the severity of the syndrome and mostly on the early treatment process. Since any person will spend about 75% of his life as an adult, the task of autism treatment is to prepare children to gain independence and to insure integration into society. As a result, people with autism need to be prepared at the earliest age to interact with their peers and integrate into the public school system, which will determine a mental development similar to normal people.[1] By doing this, autistic will learn similar sets of skills as non-autistic which will later facilitate their integration. Also, because they will get in contact with autistic children at an early age, non-autistic people will have a clearer understanding of autism and therefore be able to easily integrate them in work and social activities later in life. [2]

As treatment for autistic people progresses, the focus towards integration becomes more and more approachable. By applying the therapy at an early age and con-

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centrating both on quality and quantity of treatment, children with autism have the best chances to acquire the knowledge and skills necessary to be able to integrate in activities that normal children of the same age do. The problem now lies on preparing society to deal with problems that autistic people have. This can be done on two distinct fronts: education and environment. Since people with autism have deficiencies in the social behavior department, it is easier for society to learn how to interact with them rather than teaching autistic to interact with normal people. If society does not get educated in this mater, there will always be a gap between the two groups, because autism cannot be treated permanently and autistic will never be regarded as equal members of the community.

Present design methods for autism treatment centers concentrate either on skill development (Sensory Design Theory) [3] or rigid adaptation to day-to-day circumstances (Neuro-Typical Approach) [4] without paying much attention to future autism integration. The paper focuses on analysing architectural methods that should be implemented in autism treatment institutions in order to facilitate the transition between the therapy environment and public education circumstances. The study establishes the difference between integration and assimilation of people with autism and refines present design approaches in order to achieve a more efficient integration process. Moreover, it argues about the necessity of having a variation of sensory stimulation in the therapy spaces as well as interaction spaces for autistic and non-autistic peers inside autism treatment centers.

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[2] Russo N, Foxe JJ, Brandwein AB, Altschuler T, Gomes H, Molholm S. (2010 Oct) – Multisensory processing in children with autism: high-density electrical mapping of auditory-somatosensory integration, Autism research

[3] Mostafa, M (2014) - ARCHITECTURE FOR AUTISM: Autism ASPECTS în School Design, International Journal of Architectural Research, Volume 8

[4] Henry, Christopher N. (2011 Nov) "Designing for Autism: The 'Neuro-Typical' Approach", ArchDaily

Keywords: *architecture, autism, sensory design, autism therapy, neuro-typical, autism design, autism center, autism architecture, autism integration*
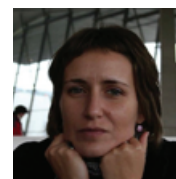
Marina MIHĂILĂ

PhD, Lecturer, "Ion Mincu" University of Architecture and Urbanism, Romania

arh_marina@yahoo.com

Marina Mihaila is Lecturer, PhD Architect, at Synthesis of Architectural Design Department, Faculty of Architecture, University of Architecture and Urbanism "Ion Mincu" Bucharest, and member of academic of the university staff from 2001. Also, M.Mihaila is Postdoctoral Researcher at Center for Studies in Contemporary Architecture Bucharest, holding this position after she won the national postdoctoral competition organized in 2012 by Romanian Ministry of Education. M.Mihaila is the authored several important articles on diverent journals and publishers, and has an authored book. M.Mihaila is also Partner Architect of architecture practice office Arhitectonik2000 Bucharest, where she is the author and co-author of over 50 built projects.

Transforming The Built Landscapes – Initiatives On City Cultural Sustainability: Phoenix Project Dortmund

Marina MIHĂILĂ

Abstract

Transforming and integrating former industrial landscapes is quite an actual problem in establishing new purposes, activities and community new life within the city. Evaluating the site and establishing priorities, values and potential is one of the first actions to be done in such situations, than the second one could be a draft listing of the successive initiatives and diverse costs on expenditure and possible futures incomes. Different scenarios are important, and also the transformation of the further possible places atmospheres are to be evaluated, together with the local real-estate policies but also the resulted value of the place, thought as cultural sustainability according to the city, region and time metamorphosis. Including a part of the industrial buildings on a short list or a 'red list' and protect their future alteration is a first action to be done when intervenes in industrial landscapes. Preserving, preserving and improving on different scales

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gives history and memory needed to local communities and the sense of place for global initiatives. Accepting (by locals) the transforming built landscapes is another issue to be considered, so the continuity has to be contended in developed layers of culture and public space coherence. Glocality and sustainable interventions should be constituted in thinking also at inherited society means but also giving opportunities on establishing new traditions.

Present text essay/paper aims to recommend a case study: a possible experiment and the theory besides the experiment, that is a new important chapter in research through architecture with significance based on initiatives on cultural sustainability: Phoenix Project Dortmund. The Phoenix Project resides in a continuous development with two main areas that have supposed transforming the built landscapes of two integrated industrial sites: one of coal exploitation and one of coal processing, in a traditional area as Germany RUHR region used to be in the past. After eco-greening the site(s), the first area becomes a inner city sea lake (filling the hole of coal exploitation) establishing a development from the scratch with integrated residence housing and condominiums, together with commerce and spaces for offices connected through a large opened pedestrian side to the sea lake, and the second one becomes an integrated cultural in process site to the city of Dortmund.

The Phoenix Project was presented on the site(s) by the urban planner specialists from the City Hall Development Department of Dortmund, within the conference workshop and study trip organized on this occasion. The event Urban Futures – Implementing Cultural Sustainability in Governance and Spatial Planning took place on 3-5th December 2014 in Dortmund (hosted by ILS Institut fur Landes- und Stadtentwicklungsforschung gGmbH, Research Institute for Regional and Urban Development gGmbH, Dortmund, Germany), and the author was invited by courtesy of the COST IS1007 action (Investigating Cultural Sustainability). Also an important archive of the site(s) photo was realized on this occasion and it will be presented in the ICAR conference. The author hereby thanks to the action COST IS1007 Investigating Cultural Sustainability, where she is a Member of the Management Committee since November 2013.

Keywords: *architecture, archive, experiments, landscape, cultural sustainability*

Vlad EFTENIE

PhD, lecturer, "Ion Mincu" University of Architecture and Urbanism, Romania

veftenie@hotmail.com

Architect, Ph-D Lecturer at University of Architecture and Urbanism "Ion Mincu" from Bucharest since 2003.
Member of Professional Associations of Romanian Architects and Urbanists.
Since 2005, assistant in the Architectural Design Synthesis department at UAUIM, author of theoretical course "Photography as a methodical study tool in architecture".
Author of the book entitled "Photography as a methodical investigation tool of the urban image", Ion Mincu University Press, 2012.
Author and co-author of numerous studies and projects of architecture / urban planning in education, commercial, administrative and residential interest area.
Author of numerous articles in professional journals on the subject of architecture and architectural photography.
Member in professional juries in architecture and architectural photography contests.
Coordination and organisation of numerous workshops and lectures on the subject of architectural and urban photography as a methodical tool – in Romania and abroad, in the Francophone Network of Architecture Schools (REA), 2006 -2014.
Numerous individual and group participations in architectural and urban photography exhibitions in Romania (Bucharest, Timisoara, Baia Mare) and abroad (Berlin, Lisbon, Toulouse, Padova, Dublin, Venice), 2003-2014.
Prize in the international competition Sony World Photo Awards, Open section, Low Light category, 2014.
Prize in the international competition of urban CBRE Urban Photographer Photo of the Year, 2011.
First prize in the national competition "See Orange" organised by Orange, Romania, 2006.
Mention in the international architectural competition "Nomad Art" organized by EALR - GAIA, France, 2003.
On-line gallery: http://www.veftenie.daportfolio.com/
Blog: http://veftenie.blogspot.ro/   Facebook: https://www.facebook.com/vlad.eftenie
Facebook fan page: https://www.facebook.com/pages/Vlad-Eftenie-photography/114443495269196?fref=ts
Instagram: http://instagram.com/veftenie   Contact: veftenie@hotmail.com

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The Visual Exploration By Photographical Means As A Research Instrument For An Extention Of Perception

Vlad EFTENIE

Abstract

Space, time, emotion, gravity - are the ingredients that define how we relate to the known world. We adopt an architectural thinking and we build the city under the power of some clear constraints and routines paradigm: the contact with the ground, the biped position, some simple joys, inner conflicts, eyes pointed to the sky, vertical direction of rain drops. Everything is perceived in vertically, horizontally and in depth movement, evolution which we organically obey, by the architecture of the human being in existence on this earth, itself. To do our existence more complex, there is also a permanent oscillation between the Self and what appears to be Real. It seems that we know everything, we do not doubt much of what we know, usually we do not allow ourselves to think outside the box. For sure, the unknown can be dangerous. We become almost unconcerned simply because routine seems to place an impenetrable veil over the senses. We use the same thinking by having sometimes the illusion of creating something new. But there is nothing new to create, some things might not be yet discovered. We need just to learn to find and to use new instruments.

We allow these interactions to have a "for granted" status, making us who we are. From one point of view, perfection has already been reached on the evolutionary scale. From another point of view, things can be annoying unpermissive, limited. Sometimes maybe we dream to think a building with the top down, or a building that float, or a diffuse building, consisting of spaces that are defined with the power of thought. Sounds like SciFi. For sure, it might be nothing but impossible to overcome these physical constraints, bbut this should not prevent us from exploring the infinity of ways in which we relate to the world, ways in which we use the components to design the relationship with it. Multiple realities can offer a completely different picture of the world by the extension of Perception. Finally, from now on we can find ourselves free. If those already cited constraints can not be negotiated in any way, we can assume that a different view is needed. Sometimes it's enough to look obliquely or upside-down. But it is necessary to Focus on as many of the plans and situations around as we can. With a little but efficient effort, we can connect with the world around us, can gain a new Perspective, we can succeed to doubt the certainties, to relax the ways we relate to the world we already know.

The everyday life environment is one in which Synchronicity brings in same layers the Observer, a Place, a fraction of the Time and what is likely to become a Subject. By the Immersion in this open context, open and ready to welcome the Unpredictable, evolving during the present and the future with a feeling of the present Moment, of what reality becomes, the observer can find himself in Harmony with the Vibration caused by the game of Occurrence. This opens the opportunity to identify a single point of Convergence and Balance of all horizons that defines Reality, thus being born the Here and Now. Photographic approach may value the Spontaneous reaction, turning it into a real moment of "State of grace" and harmonization with an intense feeling of the Whole. By triggering the shutter, the process is Decisively captured in what will become the photographic image as true witness.

By consequence, we can become aware that anything can actually be much more than we know about it. As a matter of fact, perhaps nothing might be as it seems to be. The photographic tool is probably the most appropriate means of investigating the immediate reality, the visual exploration having the ability to reveal new meanings by assuming an exploratory behavior with its own rules. New meanings and incomes can be born by accessing the sensitive, flexible and creative registers of Behavior. Thereby, reality can reveal new facets, by extending the knowledge of the world.

Keywords: *photography, split second, visual exploration, time, space, gravity, harmony, architecture*

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Raluca-Maria TRIFA

Phd Student, "Ion Mincu" University of Architecture and Urbanism, Romania

trifa_raluca@yahoo.com

Currently enrolled in a PhD at the Institute of Architecture and Urbanism "Ion Mincu", Bucharest, with a thesis on sustainable rehabilitation of industrial architecture (under the direction of prof.dr.arh. Rodica Crisan). My university years were conducted with passion and success: I followed the Master 2 courses "Conservation and Rehabilitation of the Built Heritage" at the Institute of Architecture and Urbanism "Ion Mincu" Bucharest, between 2009-2011. Also, I graduated in 2009 at the University "Politehnica" - Timisoara, with the project "The Rehabilitation and Reuse of Oradea Fortress". Between 2007-2008 I was in received an Erasmus scholarship to ISA "Saint-Luc" - Brussels.

Between 2009-2011 I colaborated with different architectural offices, thus enriching my practical skills in this area. Since 2011 I became part of the academic staff of the Institute of Architecture and Urbanism "Ion Mincu" Bucharest.

Industrial Heritage: Between History, Memory And Tranformation

Raluca-Maria TRIFA

Abstract

The subject of this article - „Industrial Heritage: Between History, Memory and Transformation" wishes to bring into question some of the issues facing valuable buildings dedicated to this architectural program.

The industrial ensembles, once an expression of prosperity and progress of the early twentieth century, have become today symbols of decay, victims of a system in transition. However, over time, the factory not only provide a functional role, but was also a witness to the various stages of technological transformation, eco-

nomic, social and political life undergone by the European society.

Through their location and size, the former production facilities have left their mark on the city, conditioning its structure and influencing the future urban development. The industrial complex constituted over time meeting points and exchange places, in which each individual culture and traditions have evolved differently, contributing greatly to the implementation of a special character in the area they were located. However, the visual identity, the distinct images generated by industrial buildings, allowed them to become landmarks for the local community. The factory, the plant and the production workshop talk about history, transformation, progress as well as social control and exploitation, thus becoming places of memory.

As Christian Norberg Schultz observes, any place is a center - what is within the limits, as close to the center, differs in rank from what remains outside. This is particularly obvious in the case of industrial buildings. By definition, they are "islands", inaccessible, absolute places, which creates a boundary between inside and outside. Industrial ensembles can be defined as heterotopias: real places, a kind of utopia actually realized, with a specific function, organized by its own rules. A place is not heterotopic by internal homogeneity, but precisely because of external differences. Heterotopias are related to certain „cuts of time" and also requires a closing and opening that makes them penetrable and isolates them simultaneously. At the same time, heterotopias can juxtapose in one place several spaces, which are otherwise incompatible. In here, „the time is narrated and exposed spatially", the space of history, full of symbols and interpretations, along with the contemporary space offering meaning to the historical time.

As Pierre Nara notes, such topographic areas represents „places of memory" – defined by space, objects or ideas possesing a symbolic value, that encourages the connection of a community with its past and thus, becoming elements of identity. However, in our contemporary world, remembering is experienced less frequently often by appealing to our consciousness, to the meanings acquired over time by the community. The memory is now manifested only through external representations and tangible markers of the extinct history. The new role of memory is to record, delegating archives (museums, libraries, monuments, symbol - buildings)

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the responsibility of remembering.

In the context of major transformations occurred in the past half century, the remains of industrial architecture can create a link between the different social layers, different generations being able to relate to them. Understood in this sense, the industrial complexes can be assimilated to these „places of memory", the buildings dedicated to production, alongside the actors of the industrialization process, being the carriers of such meaningfull messages. Even if the industrial ensemnble is perceived by the materiality of its vestiges, the intangible sources of memory become equally important during the revitalisation process. In the absence of these informations, the understanding of the industrial culture can be distorted and impossible to decipher.

A series of discussions concerning the condition of industrial heritage is required: Can we talk about the memory of the place in the case of an abandoned, deconstructed site? It is possible to perpetuate the significance of industrial heritage by selective preservation of a fragmented history? Can the conservation requirement be reconciled with the current needs of new users? Can industrial heritage regain a stable reference, becoming once again a landmark for the community? This article tries to answer these questions, based on the analysis of the industrial heritage (yet) existent in Romania.

Keywords: *industrial heritage, memory, landmark, identity, culture, re-use*

Oana Andreea CAPLESCU

PhD, arch. , "Ion Mincu" University of Architecture and Urbanism, Romania

andreea.caplescu@gmail.com

Teaching assistant at "Ion Mincu" University of Architecture and Urbanism
Studied architecture at "Ion Mincu" University of Architecture and Urbanism for six years, graduating in 2005 with a medal for exceptional results at the diploma exam titled "Multimedia center".
From 2005 to 2011 Ph.D. research under the scientific coordination of prof. dr. arch. Daniela Rădulescu Andronic titled "The Implication of New Media in Architecture".
Significant work outside the University included winning several architectural competitions. Founder of LC43 Studio where is the lead designer for a number of small sized buildings (mostly residential) and also realizing interior design and graphic design.

Architecture In Science Fiction Movies

Oana Andreea **CAPLESCU**

Abstract

Architects and designers often find themselves experiencing movies a little different, especially when it comes to science-fiction featuring buildings, cities or urban landscapes that are "out of this world"; we see the buildings in the background (or foreground in some cases) and begin to analyse how they are designed. Some sci-fi movies or TV shows suggested technologies that have inspired generations of scientists to research and develop them. In other cases the images of buildings and cities envisioned some 30 or 40 years ago predicting the future have striking resemblance to some urban environments today; there are also movies with visions radically different from what we have today.

Sci-fi can sometimes serve as a warning but often enough can be a source of inspiration. Several movies have acquired a cult status not only in popular culture but also in the scientific community, their images becoming almost iconic, refer-

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enced by many architects, theorist and researchers. Some movies drew inspiration from various architectural studies or models of utopia, on works from the avant-garde or competition entries.

Considering all of these situations, the question of this paper is what can we, as architects, learn from science-fiction movies, what (practical) design lessons are there?

Analyzing architectural representation in over one hundred feature films, short movies and TV shows of the genre, this study offers not only a synthesis of architectural design features but also highlights directions for further development of building technology and makes the case for the study of media-architecture. This paper also serves as a tool for those engaged in the movie industry, especially in the art-direction departments. At the very least it shows architects and designers how to use sci-fi material as a mood board in their creative process.

The study is structured in four chapters: the first one is an overview of the selected material and the description of the criteria used, the second chapter is the bulk of the research, analyzing the design of the buildings and urban landscapes, divided in four sub-chapters based on themes – a technological futuristic Earth (including Utopian and Dystopian scenarios and interplanetary colonies), an post-apocalyptic Earth, "other worlds" (alien worlds not colonized by humans, virtual worlds or extremely distant future of the human race) and one about the use of real-world buildings and cities either portraying a different time or an insertion in the present time (when the film was made/released); the third chapter is dedicated to the interactions between people and buildings or the participation of the built environments to the story and in the final chapter are the design lessons and conclusion of the research.

The study addresses the representations of architecture in science-fiction films, live-action or animated (only if they are 3D modeled animations) without referencing sci-fi video games because these follow different design rules with a focus on interaction; the analysis is made using real-world criteria, but taking into consideration that architecture is a by-product in movies and TV shows, whose main purpose is entertainment and usually disregards aspect of safety, maintenance or cost in the favor of compelling evocations.

Keywords: *Science-fiction, technology, cinema, design, architectural representation*

Cosmin CACIUC

assoc. prof. PhD, "Ion Mincu" University of Architecture and Urbanism, Romania

cosminca@yahoo.com

Studies, profession and current activity:
Architect, graduate of "Ion Mincu" University of Architecture and Urbanism (UAUIM), Bucharest, 1999.
PhD in architecture, UAUIM, Bucharest, 2005.
Associate professor and studio coordinator at "Introduction to Architectural Design" Department UAUIM, Bucharest – current activity.
Editor at Zeppelin magazine, Bucharest since 2008.
Individual office of architecture, since 2002.
Study grants:
Fulbright post-doctoral scholarship at College of Architecture and Planning at University of Colorado at Denver, USA, 2007–2008.
Tempus Mobility Grant, University of Nottingham, School of Architecture and Building Technology, 1997-1998.
Publishing activity:
Seven books as author and one translation published at Paideia Press, Bucharest and "Ion Mincu" University Press, Bucharest.
Five volumes as co-editor in Zeppelin team published at Zeppelin Press, Bucharest.
More than 120 published articles on theory and philosophy of architecture, history of modern architecture, architectural design, architectural education and research, transdisciplinarity, eco-regionalism, cultural theory and criticism, art, smart cities and sustainable technology.
Prizes & nominations:
Ex-aequo winner at the National Biennale of Architecture (BNA) 2014, publications section, as co-editor in Zeppelin team.
Nomination at the Bucharest Architecture Annual 2014, architecture book section, as co-editor in Zeppelin team.
Winner at Bucharest Architecture Annual 2013, design section - interior design, as co-author in Zeppelin team.
Winner as a book author with at the National Biennale of Architecture in Bucharest (BNAB) 2012 – publications section.
Nomination at Bucharest Architecture Annual 2012, design section, as co-author in Zeppelin team.
Arhitext Design Award 2000.

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The Architect As Critical Cartographer, Graphic Artist And Social Activist

Cosmin CACIUC

Abstract

The professional identity in architecture is redefined. Architecture itself extends far beyond buildings. The architect often works inside strategic processes as researcher, coordinator, consultant, informal educator, ad-hoc artist and even as a social activist. This situation is generated by an increased interest on public debates, urban visions and scenarios preceding the built objects; it is also stimulated by the necessity of democratic cooperation envisioning better politics of the built environment. Mass media reveals new claims or protests concerning urban space and neighborhood life coming from the self-organized citizens and directed to the city administration. Architects are able to redefine their social role by common strategies and civic actions. Common creation and collaborative consumption become strategic terms for an equitable urban life. Observing and interpreting this social reality is a primary tool for architects and urban planners before any action or intervention.

Critical mapping of reality appears as a first democratic tool for highlighting systematic problems and needs of a community. Observing the complexity of urban life in the everyday activities, beyond the official messages and desirable images finds now more prominent channels of urban resistance. Historiography can investigate a new social expression embraced by different civic associations and informal groups of citizens. Architects, designers and urban planners start

from small strategies and develop bottom-up initiatives, self-initiated and self-organised projects, unsolicited researches for independent cultural events.

Critical mapping (including researches, texts, infographics and diagrams) describes alternative realities different from the official versions delivered by administration, assuming that reality is a socio-cultural construct; it deals with graphical

representations of hidden issues, revealing neglected or deprived aspects of reality, offering testimonies of alternative practices (involving interpretation, subjective perception and public debate). It also stimulates the city transformation, collective participation and social emancipation. Weakening the image of the architect directing interventions „from above", this participatory process supports multi-, inter- and transdisciplinary research teams, promotes horizontal collaboration, reduces the aesthetic discourse and enhances ethical considerations about the built environment.

This essay highlights the new role of critical mapping in what we may call social sustainability, and also tries to offer a preliminary interpretation to this phenomenon. In the Romanian context, critical mapping accompanying architectural projects or social actions / workshops / exhibitions are recently developed and insufficiently systematized in theoretical and historiographical terms. This text investigates three possible or strategies in our professional environment, starting from a recent series of significant initiatives:

• Narrative and comparative mapping, engaging reflective thinking and highlighting the existing power relations and events that shape the territory.

Examples:

studioBASAR – "Habitat of Bucharest" (2008), "Normal of Bucharest" (2008), "Evicting the Ghost" (2010), "Km. 0 – Model of things and facts" (2010);

Ioana Lupașcu and Ștefan Ghenciulescu – "Roșia Montană – Mapping of the 12 marches in Bucharest (September – November 2013)";

Bogdan Ilie, Dan Achim – "Portmanteau.ro";

• Participatory mapping that anticipates operational and practical goals through direct mobilization of the community and tactics for implementing concrete solutions.

Examples:

Komunitas Association – "Workshop Ferentari – Livezilor Alley" (2011);

Oberliht Association, Chișinău – "Mapping of public space in Chișinău workshop" (2012);

Vadim Țîganaș – "Chisinau UNDERGROUND" (2010, design Diana Draganova);

Oberliht Association in collaboration with AREA Chicago – "Notes for a People's Atlas of Public Space in Chisinau" (2010, design: Dave Pabellon);

SUPERBIA Group – "Workshop in Florești neighborhood near Cluj" (2011);

• Communicative and interactive mapping by multimedia applications based on digital maps and GPS positioning, looking not only for practical knowledge but also for social entertaining.

Examples:

Serendipitor (serendipitor.net)

Boskoi (www.boskoi.org)

Repudo (www.repudo.com)

Nextdoor (nextdoor.com)

Clearly, further development of critical mapping will require a more evident technical and multidisciplinary support, involving new communication technologies and generating new professional niches in what we call open source areas. But beyond the need for entertainment or fashionable high-tech gadgets, it should be encouraged a deeper understanding and appropriation of urban space, motivated not only by subjective issues, but also by political aspirations and collective energies. Critical maps must remain a social technique for ordering the observations, a strategy of analysis, a disclosure of neglected or negative aspects in our cities, establishing meaningful links between open or diffuse urban conflicts, articulating an expression of cultural resistance, revisiting territorial boundaries and facilitating transformations of society.

Keywords: *critical mapping, social activism, bottom-up initiatives, infographics, diagrams*

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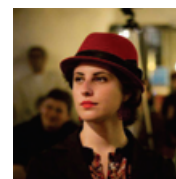
Andreea ACASANDRE

PhD Candidate, Faculty of Sociology, University of Bucharest, Romania

a.acasandre@gmail.com

My name is Andreea Acasandre and I graduated from the University of Architecture and Urbanism "Ion Mincu" (2012). I am a PhD Candidate at the Faculty of Sociology from the University of Bucharest (final year). In addition, I collaborate with the University of Architecture and Urbanism "Ion Mincu" as an academic staff.

Sociology Of The Induced Urbanization During The Communist Times. Effects On The Architectural Development In The 21st Century, In Bucharest

Andreea ACASANDRE

Abstract

The mega-tendencies of the post-modern or post-industrial world have generated important changes in the way the urban areas are organized. Peter Calthorpe discusses the changes that affected the American cities from the end of the 20th century. Among these modifications, there were named the traffic congestions, the price problem when it comes to buying a house near the city-center, the stress of living in an important metropolis or the lack of space. Another change that occurred in the post-industrial cities is the way of life of the inhabitants. In the specific case of families with children, says Calthorpe, the members of these families prefer to live in the suburbs. This fact leads to continuous traveling from home to work, which causes, at the urban level, traffic congestions, and at the social level, stress and exhaustion.

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The urban population began to feel suffocated by the by city, which is why the space began to gain more and more importance in opposition to the proximity to the city-center. This trend was mainly observed by Calthorpe in the case of the families with children. The young people, the ones that are not married yet, on the other hand, prefer to live in a central area, which offers a wider diversity of activities. This duality space – functional diversity caused segregation at the social level, determined by age and social status.

The phenomenon that occurred in Bucharest was similar to the one described by Calthorpe, but it started at the beginning of the 21st century and it had some individualizing aspects. The stress and the limited space from the city, as well as the price which was a lot lower in the areas near the capital, determined a massive migration from the part of the population towards these settlements. If during the first years of the 21st century, these areas were mostly mono-functional, as sleeping-areas, today both them and the peripheral areas of the city were transformed into new urban centers. An example could be the presence of the business-centers, the shopping areas or the recreational facilities which are situated in zones like these.

The effects of the communist period, on the other hand, caused a series of malformations in the development of these new urban areas. The induced urbanization, which was caused by the law regarding the Systematization of the territory and of the urban and rural areas (Sistematizarea teritoriului și localităților urbane și rurale), generated the partial or total destruction of numerous villages, the relocation of the peasants into the big cities, the demolition of the old bourgeois neighborhoods of the cities. All these measures were taken in order to increase the urban population, assuring, in this way, the necessary workforce for the industrialization.

The direct effects are: the peasants, who were used to owning a house into a small community, working the field which they owned, were forced to move to the big metropolis, to live in collective housing and to adapt to new working and life styles. The need to return to the lifestyle they had before remained, causing, after the end of communism, a search for space and individual housing. Unlike the migration from the American and Western European cities, a natural process, the

migration from the Romanian city (in this case, from Bucharest), came on the basis of a forced urbanization. This caused an exaggerated reaction from the population, traduced, at the physical level, by large – inutile houses (most of the time occupying almost all the courtyard), meant generally for only one family.

Keywords: *migration, delocalization, post-communism, individualization*

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Adrian MOLEAVIN

PhD, Lecturer , "Ion Mincu" University of Architecture and Urbanism, Romania

adrianmoleavin@gmail.com

After he graduated from "Gheorghe Asachi" Technical University of Iasi, respectively the "G.M. Cantacuzino" Faculty of Architecture in 2003, A.M. moved to Bucharest and, since fall 2003, he is a teaching assistant in architectural design studios at the "Ion Mincu" University of Architecture and Urbanism. In 2005 he obtains an Advanced Studies Degree in postgraduate program "Marketing and cosmotelluric quality in architecture" and in 2011 he completed his doctoral studies with the "Quantum Architecture. Theoretical and Practical Aspects." thesis. During this time, A.M. worked with several architectural design studios from Romania and abroad and participated in several architectural research programs. A.M.'s interests lie in developing practical and theoretical interconnections between architecture and the human existential universe with the aim of formulating a holistic, contemporary adequate, approach to architecture, based on ideas and methods found in quantum physics, in order to enrich architectural design and experience.

Sergiu Cătălin PETREA

PhD, Lecturer , "Ion Mincu" University of Architecture and Urbanism, Romania

arh_sergiu_petrea@yahoo.com

Sergiu Cătălin Petrea is Lecturer at Faculty of Architecture - Basics of Architectural Design Department from "Ion Mincu" University of Architecture and Urbanism. Starting with 2012 he has also a course of Ecology and Technology in Contemporary Architecture at UAUIM. He has attended Advanced Design Methods Master Program in 2005 and has a PHD Degree in architecture on Emergency Architecture in 2011. He currently explores the perspectives of sustainable architectural design and energy efficient planning, being also concerned about themes related to poverty, experiment and urban regeneration strategies. His architectural practice includes buildings from all the fields of expertise, interior and graphic design and architectural contests. He constantly participates in international congresses and conferences and it is also involved in research projects. Many of his architectural research themes are reflected in scientific papers and various thematic studies published in specialized media.

Traditional Sense Of Space As Basis For A New Architectural Theory

Adrian MOLEAVIN, Sergiu Cătălin PETREA

Abstract

Today it is almost a pleonasm to use the terms society and crisis in the same sentence. But, although at the surface we are apparently facing different disparate crises – ecological, economical, demographical or political – upon a careful analysis it become clear that society is passing, in fact, through a period of primarily ontological profound changes.

The mechanism of these transmutations is the expansion of scientific knowledge, confirmed through the day to day life practical applications and through its enormous transfigurative impact on our existential/living patterns. In other words, scientific understanding of the universe have constantly rewritten human concepts of space, time, matter, energy, life, existence, that form the core of human mentalities, existential patterns and, important for us, the creative practices and living patterns – art and architecture.

The paradigms forming the basis of human ontology changed first from traditional empiric beliefs to scientific knowledge - respectively to the mechanistic/materialistic theory; secondly from mechanistic to relativistic cosmology; and thirdly, nowadays, from relativistic to quantum cosmology. Thus, if the traditional man viewed himself as an integrant part of an organic universe, at the same time both material [physical] and immaterial [conceptual, symbolic, ritual], beginning with the 16 and 17 centuries and until the 20th century society has developed a materialist vision, based on the dissociation of the self from the world and on the idea that the Universe, respectively the nature, is an assembly of independent bodies conforming to a series of immutable laws and indifferent to the human presence but manipulable through science and that can be egotistic used on our demand regardless the consequences.

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But today, at the beginning of the 21st century, traditional intuition and scientific knowledge are beginning to overlap. Lately developed science fields studying the world of quantum particles, chaos behaviour or complexity, have redefined our scientific understanding of our Universe as characterized by unity and interconnection. Clearly, following the historic pattern, the human mentality is beginning to shape itself a new unitary and organic vision, a new understanding of Universe, nature, life and existence and of the relations between them, similar to the traditional concepts, but parallel, based not on intuition but on scientific knowledge. Consequently, this phenomenon will transform culture and artistic creation, including architectural creation, anticipating the statement of new architectural paradigms, theory and practice.

By correspondence, the basis of this new theory has to be based not on the constant reinterpretation of the architectural theory specific to materialistic paradigms, but by going further into the past and looking at the architecture of the traditional society: similarities found by comparing the ideas of unity and interconnection as the basic principle of the quantum universe and the manifestation of the same ideas in traditional empiric cosmology are suggesting that traditional, in our study - Romanian, sense of space contains within an intuitive knowledge that can, by means of interpretation, become a source of inspiration for a new architectural design.

This study looks into the spatial structure and representation of the traditional psycho-physical Universe in order to understand the traditional architecture as a complete expression of man experiencing its Universe, as a basis for extending these interconnections in the case of contemporary and future architecture built as a materialization of the relation between modern man and its contemporary view of its existential universe.

Keywords: *Traditional, Scientific, Vision, Space, Transfiguration*
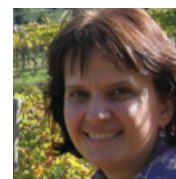
Tana Nicoleta LASCU

PhD lecturer, "Ion Mincu" University of Architecture and Urbanism, Romania

arkitekton2202@gmail.com

Monastries Pilgrim Routes – Significance And Opportunities

Tana Nicoleta LASCU

Abstract

Purposes

This research refers to the significances and opportunities that the pilgrim route to Prislop Monastery, Romania, offers for the enrichment of the touristic potential of the surrounding areas, trying to recreate and to enhance the old route existing in the previous centuries.

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Enhancing cultural routes means reconsidering the relational mobility, reconsidering some old originate routes. The concept of relational mobility implies the mobility that has not as result the movement of a person from a destination (place) to another destination (place),but that offers alternative routes, meetings, involving the concept of rhythm and living mobility, forming a certain sensitivity in the perception of landscape as a life frame, within a cycled structure of networks.

It is about that relational mobility which connects space and time, persons and ideas, produces and significances, when the travel is more important than the means of transport, in which the richness of experiences gained in the travel becomes more important than its price and its duration.

Methods

In the last decennia, the concept of "cultural good" received a wider significance, from "tangible" to "intangible", achieveing more inclusive and complex meanings. In this context, the concept of pilgrims route appears as a particular side within a framework of the new concept of cultural route, part of the program of Cultural Routes of the Council of Euope, created from 1984 till 1987, to encourage Europeans to discover a certain sense of "collective memory that remains to be invented". Catherin Withol de Wenden (European Citizenship, 1997). In the same periode, Pierre Nora elaborated the definition of "lieux de memoire": an object becomes a place of memory when it escaped oblivion, for example with the display of commemorative plaques, and when a community reinvests on it its love and its emotions.

In this wider framework of understanding the dynamic dimension of the heritage, reflecting the transdisciplinary research methods, the attention switches from the individual objects to the history of the processes have generated the objects, from the historical inventory to the dynamic evaluation of the transformings generated phenomena: in the natural as well in the antropic sphere.

The perspective starting from the historical processuality, encouraged by The European Landscape Convention from Florence, enhancing the conscience of the historical dynamics, being them still alive, latent or dissapeared, is essential for the study, for innovative

strategic proposals.

The study includes an analysis of main quality landscape indicators as aesthetical and cultural landscape value, biodiversity, flood and erosion control, potential multifunctionality, recreation activity, timber and ceramic crafts, risks and fragilities.

Results

Including a comparison with Via Francigena in Tuscany, Italy, regarding the economical, social and territorial effect, the study refers to new tools to create a heritage interpretation based itinerary, to promote tourist use of traditional rural buildings, multiservice pilgrimage areas and participatory assesment.

In these places where the people (the tourists) can experience concrete the landscape, it becomes unavoidable to find an advanced ecological strategy to recompose the cultural ambiance which still exists only through some fragments and traces.

These "eco-places" become structures to skill technical, aesthetic and significance aspects in the art to inhabit the landscape. Overcoming the limits of the concept of open-air park of open-air museum, the visitors can be organic involved as possible inhabitants, even for a short period, deepening the cultural experiences and actively participating to the maintenance of these "eco-places".

Including all these different rhythms, in the perceiving of the landscape, through the relational mobility, brings a new dimension in the sustainable approach of the territory, with all its specificity and diversity, with all its forgotten of hidden resources.

Keywords: *relational mobility, integrated sustainability, transdisciplinary research, eco-place*

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Carmen Ştefania DUMITRESCU

PhD, associated professor, "Ion Mincu" University of Architecture and Urbanism, Romania

carmen.dumitrescu2007@yahoo.ro

Architect, designer, teaching at UAUIM Bucharest since 1990.

Andreea IVANCIOF

designer, PhD, "Ion Mincu" University of Architecture and Urbanism, Romania

ivanciof_a@yahoo.com

Product Designer, Master in 'New Trends, Materials and Technologies for Interior Architecture and Design', projects in graphic design and exhibition stands, participation in different design competitions, such as 'Avant-guard furniture', teaching in UAUIM since 2004 (Study of Form, studio work in interior architecture and stage design, seminars for the 'Colour' course etcaetera).

Utopia: Project For A Perfect World – Insight And Inspiration For Architects

Carmen Ştefania DUMITRESCU, Andreea IVANCIOF

Abstract

Motto 1: ‚A map of the world that does not include Utopia is not worth even glancing at, for it leaves out the one country at which Humanity is always landing'(Oscar Wilde)

Motto 2: ‚Beware of what you wish for, because it will become true…'

Utopia – a way to dream about the perfect world, be it in the past or the future…

But it is much more than that, it is a project, fully structured, a complete model of a possible, alternative world. Understanding such models is especially valuable in a time of accelerated change, such as the times we are living today.

We will take into analysis some examples of Utopia and try to extract certain useful elements for the future, some ideas that could inspire an architect in conceiving architecture for tomorrow.

Plato's Atlantis: is it about an ideal image of the Golden Age or rather a program for reforming society?

Thomas Morus: Utopia – the city structured for the perfect society.

The concept of "utopia" started life in this work, one of the best attempts to think, with imagination and logic, from general principles to pragmatic details, a whole system, a city and the social life within it. Thomas Morus defines problems and offers solutions like a designer, structures the city like an urban planner, his descriptions express a vision close to architectural thinking.

Francis Bacon "New Atlantis" – another well rounded system, with a lot of interesting suggestions for today's architects.

This direction of thinking is present throughout our history, up until today. The following chapters were written by authors like: Jules Verne, Isaac Asimov, Arthur C Clarke, George Orwell, or Ray Bradbury. Science fiction is a very prolific and offers both an encoded critic of the current realities and a scenario for possible future ones.

Science fiction express radical ideas also through other means, "comics" or films – this way, it becomes possible to reach an even larger audience, to increase the public awareness.

Globalisation brings us all together in our quest for defining and building a better world. The science fiction stories, positive or negative scenarios, express our common and specific needs and worries. They have true value as models, to be tested virtually, that would eventually lead to possible solutions for our real problems.

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Architects are very much part of this adventure of questioning and discovery: smaller scale projects or large scale interventions express a more or less utopian conviction: through architecture we can influence significantly the way society works and people live.

Architectural versions for utopian ideas – from the "Eden project" to landscape forming, a new type of relation between the natural and man-made environment is now being defined.

A program to reform our civilization, an utopian but surprisingly well structured and motivated attempt: the "Venus project" had a ripple effect in the Zeitgeist movement and exerts fascination and influence upon people all over the world, including urban planners, architects and designers.

We should also pay attention to the distopias that materialise our worst fears – always too close to reality, they express a healthy critic attitude. Sometimes, they offer useful, early warnings that help us avoid derapage and excess; most of the time, they are overlooked and forgotten, until the time has come for them to be proven right...

Even well intended, well planned utopias can go wrong, when applied and verified into practice: some examples would be the Godin Familister, or Ricardo Bofill's Antigone architectural ensemble in Montpellier – in both cases, the inhabitants, the direct beneficiaries, were/are not at all happy in their „Versailles built for the people". We have here a very useful lesson for architects: to better understand the values and the motivations of the people that would live in their utopian architecture.

How can we, then, find the right balance, the right solutions? By using both common sense and critical thinking, by trying to verify in models before applying to real life, by letting enough space for natural developments and adjustments, by allowing the users to participate in planning and managing the projects and their application... In short, to change the attitude from „I am an architect, I know better' to „I am a responsible architect, I create for others, so I'd better bring them into the process, make them partners in this adventure' Responsibility and cooperation might be the keys for succeeding in building viable utopias, new ways to live on this planet or elsewhere.

However, there is always a risk in dreaming and proposing something for the future: „Beware of what you wish for, because it will become true'... It would be irresponsible not to think or prepare for the future – but nowadays, the problem is that the future is approaching so fast that we do not really have the time to thoroughly think or prepare for it.

We prepare for expanding our world: living underwater, in space or on another planet: "new frontiers..." – if we want to succeed in this new adventure, we should prepare well, share a common vision, and work together to achieve our goals. Utopian thinkers, artists, scientists, architects can help us define the structure of our common future – they could be the leaders in this process – this is a daunting task and involves a high degree of responsibility.

Therefore, we should also insert this topic into the educational process: theory courses, case studies and debates, studio applications that would prepare future architects for the challenges of the "brave new world".

Keywords: *utopia, project, model, alternative, sustainability, vision, architecture, design, urban planning*

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Cristina-Camelia STIRECIU

Assist.Prof.,Arch PhD, "Ion Mincu" University of Architecture and Urbanism, Romania

cristina.stireciu@yahoo.com

I graduated the "Ion Mincu" University of Architecture and Urbanism, class 1996 and I've been looking to combine a professional way in my office design with an academic career within "Design Basics"department. The satisfactions have been and are on both sides, but university training was a way to grow professionally, due the times we live in. Thus, what I have learned from the teachers of this school, I am transmitting to the other generations of future architects. I achieved the doctor's degree and I am participating with a lot of interest at the conferences organized by the Union of Architects of Romania.

Timber-Made Tall Buildings - Are They An Utopia, Or Do They Have A Future?

Cristina-Camelia STIRECIU

Abstract

The geographical conditions of each country led to the development of a material used in construction, whether it was earth, stone, wood or brick. Therefore, the natural environment caused the local specificities, regional similarities, norms that have contributed to the development of a certain way of building.

The forests that characterizes most of northern and eastern European topography of the area, are defining the structure of the places, actually an infinity of landscapes which induce different perceptions and sensations.

They can be an important element of the global strategy to limit CO_2 concentrations in the atmosphere, contributing to the climate changes. As part of the global carbon circuit, the forests removes CO_2 from the atmosphere as they grow and accumulate carbon in the biomass of the trees.

The current degree of deforestation is contributing over 20% to emissions of greenhouse gases, making from the global deforestation a major cause of climate changes due to the human actions. By deforestation, all the carbon dioxide is coming back into the atmosphere, contributing to the increase of greenhouse gas emissions. In addition, the deforestations have led to soil erosion, winds intensification, aggravating the drought, reducing the water flows, the formation of the dust storms, the pollution of the air, of the water and of the soil and the catastrophic floods.

The forest maintains the ecological and climate balance and it is the ecosystem that is recovering with a rate of 3-5 times faster than any other natural ecosystem. By completed deforestation, all this balance is suddenly altered and the nature takes revenge by irremediable consequences of climate changes.

The wooden architecture in the Nordic countries is a response to their way of living, of the climate that supports in an existential space with many vicissitudes. In other words, that space offered a type of architecture that belongs to those places, or rather the place created architecture suitable for the people of those areas.

In the early 1990s, within the global ecological crisis, there were rediscovered qualities and concepts of the wood – the last projects developed worldwide, highlighting its intrinsic characteristics and its cultural and aesthetic contribution, without neglecting technical and economic advantages. This radical revolution of the image of the wood in construction was favored by the developing of the new technologies and assembly systems, the merging and reinterpretation of the wood which can be made especially by industry. It is about the prefabricated elements (columns, beams, panels, plates), which are produced by the specialized companies, with modern equipment, where human intervention is quite limited.

What many thought a few decades ago that was a utopia, now, the high building construction with more than 4 levels caused the changing of conceptions for many specialists, architects and engineers, in terms of the future high wooden construction. Thus, their processing at large openings allows the creation of beams or pillars with atypical forms and their beauty and spectacular result precisely because

they are made of wood. The curve and dynamic forms became dominated for the aesthetics of present buildings, thanks to the imagination of the architects, who made an impossible thing 50 years ago, due to an advanced technology, a new way of conceiving wooden architecture.

Michael Green is the architect who became an emblem in Canada, willing to be heard and understood in his way of approaching and understanding the promotion of the wood as the main material for future construction. He holds the supremacy in people education in order to promote this renewable and ecologic material, so healthy for the human life. He foresees the future of wood constructions with buildings that 20 years ago seemed impossible, but maybe in another 20 years it will become a common thing in other countries. The wood constructions could be the vein of people who are guided by other values, for economic purpose of the countries that promote the researches in advanced wooden structures, or due to inherited traditions.

Expressiveness that can have a wooden contemporary architecture today, I hope to open, through us - architects, new structural forms, more creative, more efficient, new structures of 21st century. The wood as a building material can be considered a material of the future, permitting to the structural engineers to discover new ways to build.

Keywords: *climate changes, the deforestations, wooden structures*

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Horia DINULESCU

Lecturer PhD, "Ion Mincu" University of Architecture and Urbanism, Romania

horiadinulescu@yahoo.com

Graduated the "Ion Mincu" University of Architecture and Urbanism - Bucharest (UAUIM), Faculty of Architecture, in 2004. In 2011, PhD at the same university with the thesis "Searching the Type. The echo of tradition in Romanian architecture". Member of the Romanian Order of Architects since 2005. Lecturer at the above-mentioned university. Until 2014, Director for Studies at the UAUIM's Architectural Conservation and Restauration Programme in Sibiu. Member of the UAUIM winning team of the Patriarchal Cathedral Architectural Contest, 2004 (team leader: Professor Augustin Ioan, PhD). Joint author of the "Marcel Janco – A contemporary interpretation" exhibitions in New-York and Budapest. National and international conferences since 2006. Articles in "Dilema Veche" journal since 2010 and author of the book "The Double Meaning of Architectural Tradition".

The Place, The Community And The Architectural Higher Education

Horia DINULESCU

Abstract

In 1864, Prince Alexandru Ioan Cuza signed the decree which stated the establishing of the Superior School for Bridges, Roads, Mines and Architecture in Bucharest. Therefore, this year, 2014, our university - the University of Architecture and Urbanism Ion Mincu - celebrated 150 years of architectural superior studies in Romania. A major step in this institution's history and a good opportrity for looking back while projecting a meaningful future.

My presentation will evolve around this pretense but just as a starting point and not as a pathetic remembrance of this significant history, a way of seeing the architecture and the architectural superior studies within an university and in di-

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rect connection with the surrounding context, may it be real or abstract, active or passive. Meanwhile, this insight will not have a center-to-edge orientation, but will have a rather oppsite one since UAUIM may have its center located in Bucharest but a special type of architectural studies programme it is located in Sibiu. This Bachelor degree, 3 years programme, having as main axis the architectural conservation and restauration, was established in its actual form in 2007. It has a particular way of teaching architecture and connecting the future specialist in architectural conservation and restauration.

As former Director for Studies of this Sibiu located section of UAUIM, my presentation will use this particular example and the teaching experience there for connecting some major and extremely up to date subjects, subjects revisited today in many other superior schools of architecture worldwide. As a matter of fact, the today architectural studies, both teaching and learning, find themselves facing a globalised practice while training future specialists that will have to be ready to work with local communities as well. The practice range becoming more vast and complex, teaching architecture might be put to the test.

The main subjects of my presentation, resulting, as mentiond before, from my own practice within the Sibiu Architectural Conservation and Restauration Bachelor Programme, will be structured around the following:

• the importance of creating and locating a specific university-related programme within a specific built context;

• the importance or the lack of for combining a theoretical learning of architecture with the practical experience in the field;

• the importance of the architectural practice (especially the one focused around restauration and conservation of old buildings and sites) and the specialist in (re) creating and (re)bounding local communities;

• the various gains, from an efficient architectural higher education point of view, of "repositioning", from time to time, the school outside its classrooms and exterior walls.

The Sibiu programme is merely a minor section of the larger Bucharest-based

University of Architecture and Urbanism but might be a needful appendix, having its degree of autonomy and thus being able to practice a different kind of architectural teaching-and-learning curricula. Meanwhile, the fact that some of its present activities and concerns might be found among those sustained within some major architectural superior schools worldwide but without having a direct link or derrivation, may be a sign that this particular type of programme, yet minor, has the right potential for a future development.

Keywords: *architecture, higher education, conservation, restauration, community, local.*

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Mihaela ZAMFIR (GRIGORESCU)

PhD, Assistant Professor , "Ion Mincu" University of Architecture and Urbanism, Romania

mihaela_arhitect@yahoo.com

Graduate in 2003 of Faculty of Architecture, University of Architecture and Urbanism "Ion Mincu", and in 2005 of Master "The rehabilitation of built heritage", Mihaela ZAMFIR (Grigorescu) (born in 1978) has finished in 2014 her PhD with the thesis "Towards a community architecture- interdisciplinary highlights for the contemporary urban society".
She is Assistant Professor at Faculty of Architecture, University of Architecture and Urbanism "Ion Mincu", Bucharest. She has an experience of 12 years in teaching and tutoring and also she has an experience of 12 years in the practice of architecture. She is the author of 34 communications at international and national conferences and the author of 23 architecture articles, with an interdisciplinary opening, especially with medicine, psychology and sociology. She founded the concept of COMMUNITY ARCHITECTURE.
Mihaela Zamfir (Grigorescu) has her own studio MMG from 2006. She realized over 40 individual dwellings and residential complexes, over 30 interior designs for dwellings, apartments and banks. She has also 4 years experience in real estate.

A Brief Introduction To Community Architecture Concept - From Believing To Reality

Mihaela ZAMFIR (GRIGORESCU)

Abstract

Currently, the architectural discourses generally start from the contemporary society premises. It is about the society that we live in, about the communicational, computerized society and about the architecture that has to meet the society's requests the subject of an architecture for community, of a COMMUNITY ARCHITECTURE is approached more seldom, and even when it is

approached, there is not yet a solid theoretical base or a well-founded concept. The attitude and also the terminology used are not random and derive from the actual trends-computerization, virtualization, spectacularization, consumerism, secularization, urbanization, the globalization process, from obeying the ephemeral and delocalization effects.

The community coagulation seems to be very difficult in the contemporary urban society. The lack of time, the infinite delaying of the direct contact, the reversal of the pyramid of values have led to the late formulation of an actual concept dedicated to the community architecture.

The pessimism of the contemporary philosophers and sometimes the mathematical solutions given by the sociologists or the excessive psychologization of the relations between individuals close the reluctant picture that is soaring over the community.

However, the community germs are present in the criteria which are able to bring the communities together: place, values, interests, age, spirituality, even if it is done in a new way.

The present article aims to introduce the community architecture concept with references to an interdisciplinary scientific literature, making a step forward towards the community architecture theory. Today, the community architecture concept is closely linked to communication, so in the documentation it was followed the communication by culture relationship under the contemporary aspects. The culture-communication conceptual couple is currently a subject to various approaches, from an arid theorizing to expressive semantic nuances, from almost vigilante utterances to balanced and open approaches. There are mentioned specialists who activate in this field, namely: Miége, Debord, Baudrillard, Georgiu, Ghiu, Mihali. At the same time it is emphasized also relevant bibliography in the community field: Tönnies, Paul-Lévy, Putnam, Weber, Cohen, Ashton, Hutton, Bartle, Mihăilescu, Hatos, Tompea. The actual tendencies of the society, the difference between the society and the community concepts are therefore clarified.

The article insists on the fact that the true values that can bring the communities

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together are not losing their validity, being only expressed differently. The actual tendencies of the society/communication, the fast circulation of information and the globalization must be seen as resources and not as obstacles. Architecture, in its concreteness, will never lose its value if it is designed for and together with the contemporary people. The article shows that today, the architect must provide integrative teamwork and interdisciplinary spirit skills, the integrative approach being a sine qua non condition for the architecture of the actual communities. This translates into extensive multi-interdisciplinary documentation, because the community issue is approached by specialists from various fields: sociology, anthropology, psychology, philosophy, medicine, gerontology, theology, architecture and urbanism, communication and economy.

The article makes a short radiography of the contemporary society situation, pointing out important elements in terms of architecture, reflecting five years of search and research in the PhD. Along with the theory of the community architecture term, the article aims to open the architect's appetite to go deeper into the community issue, having an obvious interdisciplinary point of view.

Ultimately, I strongly believe that the expression of a contemporary civilized society and the architecture that represents it, found its resources in the life of the communities constitute it, and in the established relations between their members. Undoubtedly, the architecture reflects the welfare state of a society, governing policies, but without the community component it remains unsustainable. The community represents the deep layer of the society, the spirituality, their intrinsic values while architecture is in a permanent interdependency with the community. Today the community architecture is flexible, permeable, open to communication. Architecture and community define each other, potentiating, reviving, integrating their own qualities, in this globalization process while preserving their individual uniqueness.

THE COMMUNITY ARCHITECTURE is an Ontological Architecture.

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Keywords: *community architecture, globalization, transculturation, communication, ages, interdisciplinarity, community architect*

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Iulia HURDUCAS

PhD Candidate, University of Sheffield, United Kingdom

ihurducas1@sheffield.ac.uk

Iulia Hurducas is an architect having practiced in Romania and Germany. She holds a degree in architecture from the Technical University of Cluj, Romania, and is currently a PhD student at the Sheffield School of Architecture with a thesis on the hybrid nature of the architecture of migration.

Partial Connections: Bodies, Territories, Buildings, And Objects. Remittance Architecture In Northern Romania

Iulia HURDUCAS

Abstract

The paper proposes a brief insight into a wide spread phenomenon of contemporary society, that of the architecture fueled by remittances. This is a very common phenomenon in our globalized world, from Mexico to the Balkans, and it is the case of northern Romania that I will explore. Remittances have been acknowledged as contributing to development, as Kai Vöckler's study on post-conflict Kosovo has shown. However, in her study on Mexican remittance architecture, Sarah Lynn Lopez argues for the ambivalent and ambiguous understanding of its materialization in localities.

Researching the entanglements of remittance architecture requires, methodologically, developing an-other way of seeing, an embodied way of seeing that escapes the perspectival. Two theoretical anchor points prove useful in this endeavor – Donna Haraway's claim for a situated knowledge, that grounds the researcher in his body as he claims objectivity, and Peter Sloterdijk's spherology, that aims at reconnecting being, with its material incarnation, the body. The search for partial connections is thus, inevitably two-fold, as I search to connect to the body of literature that tackles the transformation of vernacular architecture in Romania while searching for how migrant bodies partially connect to 'other beings': the territory, the buildings, the other objects.

In the particular northern Romania case, which was not profoundly affected by the socialist re-shuffling of property and the following post-socialist re-construction of property rights, remittances stretch since the communist time when people used to be seasonal workers within the country. But as the post-socialist industrial restructuring loosened the connection they had with the territory where they were raising cattle and sheep, their movement across borders became a 'strategy of life'. The ambivalence of the buildings plays itself in-between the representational and the functional, the building practices and the legally inscribed building mechanisms. The remittance house is thus revealed as a temporal accumulation of capital as matter and space, never complete, always in the making. Along with the competition for capital accumulation, things are gathered as demanded by the sociability of the village.

The current assemblage of material, reveals the entanglements of the global remittance flow and its local materializations, alongside the relations between modernity and tradition and between vernacular and cult architecture. And even if this 'revealing' is not new, as Andrei Șerbescu has shown in his PhD disertation that presented a critical approach to vernacular architecture, I argue for the need to re-entangle the knowledge we have and speak about 'vernacular' and 'cult' architecture, about local builders and local architects, about beings and bodies, about matter and meaning, at the same time, in the same text.

Keywords: *migration, remittances, architecture, urbanism, new materialism*

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Maura PERCOCO

Researcher and Aggregate Professor, Sapienza University of Rome, Italy

maura.percoco@uniroma1.it

Maura Percoco (Terracina - LT, 1968), architect and Researcher in Architectural and Urban Composition with the Sapienza Faculty of Engineering in Rome. She holds a PhD in Building Engineering-Architecture. She performs research with the Department of Civil and Environmental Engineering (DICEA) in the field of temporary dwelling as a response to social necessity, with a particular focus on poverty and emergency situations. She teaches Architecture and Architectural Composition as part of the EU master course in Building Engineering-Architecture. She has published essays and articles on the themes of her research and the relationship between materials, technologies and the contemporary language of architecture. She regularly participates in national and international design competitions, receiving awards and mentions.

Urban Regeneration + Social Integration: A Possible Synergy. Rome As A Case Study

Maura PERCOCO

Abstract

Approximately 15,000 people in the city of Rome live in precarious conditions. This number is destined to increase given the current economic situation, which threatens to expose to the risk of poverty those once considered immune.

This recessive trend must be summed with a preceding and rising phenomenon of foreign immigration. Recent events in the Mediterranean are forcing growing numbers to leave their homes for Italy, with many seeking international protection in Rome with high risks of exposure to social exclusion. These basic numbers describe the dimensions of a problem that has now assumed the scale of an emergency, most evident in such a densely populated city as Rome, which represents an emblematic case study. Its metropolitan character offers the possibility for a national and international comparison with the many cities, capitals or not, forced to confront a similar emergency.

The gravity of this phenomenon, its extension beyond national borders and persistence over time impose a radical change in the approach to the problem of housing, which must be based on the recognition of the value of difference as an opportunity for enrichment and the consideration of cultural "contamination" as an effective tool for resolving an urgent social problem.

Making this possible requires a visionary approach and a change in the perspective from which we view reality and the problems faced by contemporary society. In many cases the term visionary equates with the exact opposite of concrete action. The relationship between intentions and needs can also be interpreted as assessment, as coexistence, to the degree that even the utopian prefiguration of a better society in the future – desirably multicultural, inclusive and truly integral – can be linked to the ethical aims of architectural design.

A similar strategy presents architectural research with the primary objective of defining new parameters and new models for intervening in the consolidated city, recognised as the privileged context for the creation of social, sanitary and educational conditions favouring a cohesive multicultural society that recognises the right to employment and housing, supported by infrastructures suitable to a changing socio-demographic framework.

Interventions to recover and modify the uses and appearance of potentially available abandoned existing stock may represent the strategic key for requalifying, defining a new identity and developing portions of the city; offering housing, public services and workshops for productive activities to immigrant communities, the homeless and those in difficulty without the need for additional constructions; for reinforcing the desire for participation and involvement in the fabric of social and community relations, for a greater integration with the urban fabric, in terms of architectural relations between the existing and surrounding contexts.

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The research to be presented in the essay is inspired by the conceptual association between notions of Urban Regeneration and Social Integration, and the possible interaction between the Needs of the existing city and the Hopes of a future society.

More specifically, the essay examines these themes by assuming Rome as an emblematic example, comparing some case studies of the transformation of abandoned industrial buildings into housing; it looks at the potential offered by applying architectural design research to abandoned building stock, identifying and promoting original approaches to design focused on offering concrete and sustainable responses to the management of multiple forms of social exclusion, also through the activation of processes of "participatory urban planning".

Keywords: *Urban Regeneration; Social Integration; Interactive Effect; Abandoned Building Stock; Rome*

Andreea NEACȘU

Lect. dr., "Ion Mincu" University of Architecture and Urbanism, Romania

andreea_neac@yahoo.com

Născută în București (1974)
Absolventă a Colegiului Național "Sf. Sava" din București (1992)
Absolventă a Facultății de Arhitectură din cadrul I.A.I.M. (1998)
Absolventă a Școlii de Înalte Studii Postuniversitare, cu specializarea: "Restaurarea monumentelor, ansamblurilor și siturilor istorice" (2001)
Doctor în arhitectură (2008)
În prezent - lector în cadrul Facultății de Arhitectură de Interior, Departamentul "Studiul Formei și Ambient" din cadrul U.A.U.I.M.

The Consecrated Place

Andreea NEACȘU

Abstract

This article is about the link between architecture and spirituality. There are places in our world which have spiritual attributes. One of these is the limit.

In this article I will try to demonstrate why the limits have spiritual attributes. It is both an architectural and a theological approach.

The limits consist, for example, in walls or other types of peripheries. Practically, the limits are charged as vertical plans.

Let us try to explain: although we see with our eyes the thickness of the wall and of the door frame, in our mind there is a virtual, simplified understanding of this place, man being created to understand the virtual geometry of the space, simplifying the three-dimensional spatial reality being an inherent mental process which facilitates the orientation and the understanding of the surrounding nature;

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for example, a man succeeds more easy to represent itself a building by simplifying it and representing it as a superposition of horizontal plans, delimited of other vertical plans, in which the inner walls can be represented simplified also as plans, defined by the axes of the walls and by the verticals.

Meanwhile, when we are inside a building, the representation of the space will be another, meaning that if we are inside of a room, we are tipped to define it using what we see, as a "box" determined by the surfaces of the walls, the ceiling and the floor. But this perception changes when we stay in the threshold, when begins to function the "virtual" view, that makes us "see" this place rather as a bi dimensional place, meaning a vertical plan, which separates two adjacent rooms. This perception also dues to the fact that, in most of the cases, we move, entering and exiting from one room to another. In conclusion, by reducing at the bi-dimensional, we define a limit.

But what happens when we a crossing a limit? This is very interesting. In this moment, our heart is striking.

What is the heart? It is the center of the human being, according to the christian practice. This heart, which does not coincide with the anatomical one, has a specific vitality, meaning that sometimes it can be alive, other times it can petrified.

So, the threshold is perceived both with the mind and the heart.

There are other places which are perceived in the same way, not only the thresholds. There are the gates, the crossroads, the elevator shaft, the boarding lanes. All of these are "passing places". Maybe these are places propitious for a pray, places where we gather ourselves, to realize what happens in our life. These places are the best for a short, but intense prayer. In this category of places is included the roman triumphal arch.

Concluding, the intersection between a limit and a direction of movement generates "the place". The places have only one direction, the vertical one. In this places, our heart prays instinctual. This is why the places are sacred, and in the popular traditions, they are signaled with a cross.

Keywords: *theory of perception, limit, spirituality, heart*

Daniel COMŞA

Assoc. Prof. PhD. Arch., "Ion Mincu" University of Architecture and Urbanism, Romania

dancomsa@yahoo.com

Ph.D. Architect — Associate Professor at "Ion Mincu" University of Architecture and Urbanism from Bucharest
Deputy Dean on Student Matters at the Faculty of Architecture
2002- present 2013- present Associate Professor at the Synthesis in Architectural Design Department within the Faculty of Architecture, "Ion Mincu" University of Architecture and Urbanism from Bucharest, Romania (IMUAU) 2008- 2013 -Lecturer, (IMUAU) 2006-2008 Assistant Professor(IMUAU), 2002-2006 Guest Professor(IMUAU)
2007- present Coordinator of The International Association for the Exchange of Students for Technical Experience (IAESTE) in Romania
2005- present Owner of Architecture Practice Office
2010-2014 Member in the Director Council of the Romanian Architects Order
Research
2011 Research fellow for two weeks at INJE University, Ghimhae, South Coreea
2010-2012 Postdoctoral research grant by the National Center of Scientific Research (CNCS) and the Ministry of Education and Research of Romania
2004 PhD supplementary scholarship given through a research grant by the National Center of Scientific Research (CNCSIS) and the Ministry of Education and Research of Romania

The Relevance Of World Expos Proposed Topics In Relation To Architectural Or Urban Achievements

Daniel COMŞA

Abstract

The study of the last two World Expos Shanghai 2010 and Yeosu 2012, done with the help of my PD research grant, as well as visiting other exhibitions already closed (Montreal, Lisbon, Hanover), has opened my perspective on

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a' highly fecund topic that will develop within the next exhibitions in Milan 2015, Astana 2017 and Dubai 2020, which deserve consideration for research.

Historically speaking World Expos have created architectural objects that became landmarks for the cities that hosted the Expos. Atomium is an example like this for Bruxelles and Eiffel Tower in probably the most well known example for Paris. Crystal Palace by Joseph Paxton was the first location of a world fair and rest in our memories as an example of total transparency even if now it does not exist anymore. Those evens also have a component of science and was a place where new technologies were launched and seen by a large number of people. For instance, the World Expo from Paris in 1900 has had about 50 million visitors.

In 1876, in Philadelphia, the first World Expo in the United States remained famous for introducing the public to the telephone and the commercial typewriter. Almost one hundred years later in 1970 in Osaka the first mobile phones were exhibited at this Expo in Japan, but the major attraction was a piece of lunar rock in the American pavilion.

The thematic component appears in time along with scientific innovations but we could say that in 1915 in San Francisco the world Expo celebrated the completion of the Panama Canal, and served as an opportunity for the city to showcase its recovery from the 1906 earthquake - this could be the first intervention in a city for a practical reason.

The theme for Dubai 2020 World Expo is Connecting Minds, Creating the Future and it looks that one of the goal of the organizers is to stream live most of the events.

The shape of the Shanghai 2010 expo pavilions was interpreted by Silvio Carta in his article The image of the Shanghai 2010 Expo, and he discussed the contribution of single pavilions to Shanghai's global image.

http://www.sciencedirect.com/science/article/pii/S2095263513000435.

Following this analysis and also the study of Contemporary ways of enveloping spaces focused on World expos that I succeeded to finish in 2012, I will try to show the link between the architectural form of the pavilions with the relevant topics.

Shanghai 2010 exhibition topic, Better Cities for a Better World, has brought this event closer to the urban issue and I consider that the administrators of Shanghai were able to take advantage of the new strategies exposed here as techniques for the future.

The study aims to involve three components, one analyzing the past, one real time analysis of ongoing phenomena and the last component will set recommendations for what these manifestations could follow in the future.

In 2012, in Yeosu, a small city from South Korean coast was

held the World Expo, under the theme 'The Living Ocean and Coast'. This expo attracted over eight million spectators exploring the need to preserve our marine ecosystem and the impact of climate change.

The Milan World Expo topic is "Feeding the Planet", and the basic idea was not to rely on the monumentality of many Shanghai 2010 pavilions but on a minimal, green thematic, with minimum impact on all levels. It will be useful for the project that the first objective analyses the ways in which this idea succeeds in this case as well as past expositions.

From their first intentions to the actual pavilion it could be a long road - to further discuss in this article.

Keywords: *World Expos*

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Matilde PLASTINA

Building and Architecture Engineering PhD , Sapienza University of Rome, Italy

mat_plast@libero.it

Matilde Plastina is an engineer. In 2007 she graduated in Building and Architecture Engineering at Sapienza - University of Rome. In 2012 she has received her Building and Architecture Engineering PhD at the same University. She takes part in different international architectural conferences and debates, organized by various Italian Universities. She is fully involved in the researches activities of Civil, Building and Environmental Engineering Department of Sapienza. She works, as tutor, with Sapienza, during teaching activities of Architecture and Composition Architectural 2 and of Architectural and Urban Design courses. She is assistant supervisor of degree thesis since 2009 (Building and Architecture Engineering Course - Faculty of Civil and Industrial Engineering, Sapienza).

The Social Housing Design Between Dream And Reality

Matilde PLASTINA

Abstract

In an age where everything seems possible, in which the real word is confused with virtual one in a mixture without a break, where science and technology come together clashing fiercely with ethics making driest and disillusioned everything surrounds us, is there still place for imagination? In contemporary architectural design can we still talk about utopia and experimentation?

In a period of severe economic and social crisis, it seems the architecture, fervent field in which daring studies followed one after the another, restarts to suggest the dream of living according to new lifestyles, offering solutions characterized by a

visionary breathe, mainly intended to improve the quality of life. The '60s and '70s examples were not the last visionary impulses. Nowadays, we can still talk about utopia and experimentation in architecture, maybe.

Utopia in Architecture is a clever balancing act between rational and irrational sphere, between feasible and unfeasible, between different and dichotomous elements. In the balance between imagination and foreshadowing of the future, the avant-garde architecture was spokesman of different design models in which contemporary design rooted and enriched with new values and meanings also due to changes of the social reality.

Images and icons of a radical alternative of usual way of life, the Plan Obus of Le Corbusier, the Highrice of Homes of Wine, the Plug-in City, the Spatial City designed respectively by Archigram and Yona Friedman, are considered precursory examples of the "pigeonholed habitat" and they can be still valid models to build the contemporary city.

It seems that the visionary attitude for housing design developmental course can be necessary and indispensable; because it has opened some lines of research still valid in contemporary design, although they are interpreted in a different new way. The provocative Eco-monster domesticated proposal presented (2008) by Albori Studio for the Venice Biennale, the MDU Harbour project developed by the group Lot-ek (2002) are some examples of how these visionary ideas are taken up and reinterpreted to create new settlement opportunities through new forms of urban densification.

The innovative unbuilt examples are complemented by some built or under construction ones in which utopia becomes pragmatic. The design find some points of contact with reality and being able to cross its threshold, it becomes concrete building and substance; capable of hybridizing more forms of living, it does not produce unique projects, but combining diversity and density satisfies more needs; it collects approval of a varied multitude of people, opposing homologating intentionality of the modern ideal.

This trend is adopted and tried by the Danish architects of BIG (Bjarke Ingels Group) for example in projects for Lego Towers (still in the planning stage), and for

The Mountain, or by MVRDV recent residential projects such as the Folie Richter in Montpellier or the Market Hall in Rotterdam.

Their ideas become promoters of social and architectural utopia that is no longer dreamed, but it is realized and lived inside the home. The contemporary architecture proposes new residential buildings, characterized by powerful iconic charge. A new concept of density emerges. It want to fight urban sprawl making better use of the land and at the same time it looks for solutions about housing identity and continuity with the city.

In order to return an innovative contribution to research about social housing and aggregation systems, this reflection aims to identify and analyze some significant examples of contemporary social housing to highlighting some design strategies and housing models.

Keywords: *Utopia, Innovation, Research projects, Social Housing.*

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Emilia ROSMINI

Phd student in Engineering-based Architecture and Urban Planning, Sapienza University of Rome, Italy

emilia.rosmini@gmail.com

Colonize Abandonded Areas: Reappropriation Trials In The Unused Industrial Heritage In Favor Of New Social Living

Emilia ROSMINI

Abstract

The new demands relevant to the changes in our society (the increase of single-parent families, the massive migration processes, the working nomadism, the impoverishment), combined with the need to repair the damage of urban speculation, the increasing gentrification (the rehabilitation of working-class and derelict built heritage and the consequent transformation of an area into a middle-class neighbourhood) of the urban centres and phasing out of existing built heritage, have led the inclusion of "Re-inhabit" as a concept of living. A new concept that is compatible with the contemporary design of cities and capable of reactivating disused spaces within the urban fabric.

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The abandoned industrial heritage represents a great opportunity because of its strategic location, spatial quality and strong identity. Re-inhabiting these spaces with experimental, social, temporary residences meets social inclusion policies and allows the ransom planning and the asset building.

So far the reuse of industrial heritage has tended to a musealization of these spaces oriented towards a luxury and contemporary taste, denying, most of the time, the old values of these buildings, related to the activities and community life of the working class. Consequently, the urban regeneration, carried out in recent years, has radically altered the socioeconomic reality of entire neighbourhoods, triggering strong processes of gentrification of the city that seem to presage the risks described by Rem Koolhaas in the Generic City. It is essential to preserve the values of the industrial heritage and propose its re-activation in order to meet the social demands. The recovery of abandoned industrial buildings, for the implementation of sustainable social activities, not only preserves valuable memories, but also contributes to the protection of cultural diversity, as a form of enrichment and social harmony in the development of the future of cities.

This research explores the alternative architectural strategy of the colonization as a tool of regeneration of industrial heritage in a period of social and urban crisis. It is a conversion strategy that considers the existing building as a mere structural skeleton in which to insert new housing volumes. What initially may seem a disadvantage (the existing structure) allows architects to employ a dynamic process of creation and freedom of expression to give life to new forms of living that lead to a rediscovery of a sense of community and participatory life, increasingly in demand by contemporary society.

The paper starts with a brief theoretical exploration of the social role of industrial heritage in the contemporary society. Then, based on the understanding of some experimental projects, this paper sets out a framework for considering how industrial heritage might contribute to a new model of social housing. In this sense the paper consists of qualitative interviews and document analysis on two main projects: Casazera of Tra Srl studio in Turin and Bamboo Micro Housing of Affect-T in Hong Kong. The characteristics related to the experimentation and innovation that this design strategy involves (reversibility, energy efficiency, flexibility, self-construction, etc.) are examined. From these considerations, conclusions seeks to start a debate on diagnosing the absorption capacity, management, economic sustainability, integration, hybridization of uses, of this new strategy in the abandoned industrial areas of the city.

Keywords: *Re-inhabit, Experimental housing, Industrial Heritage, Social Inclusion, Urban Regeneration*

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Alexandra PACESCU

Assist. Prof, Arch. PhD, "Ion Mincu" University of Architecture and Urbanism, Romania

alexpacescu@yahoo.com

Assist. Prof. at the Synthesis of Architectural Design Department
PhD thesis submitted and presented in 2012: PUBLIC SPACE IN THE HISTORIC CENTERS OF TOWNS IN RO-MANIA - Urban Clippings at Successive Scales; Advisor: Prof. Arch. PhD. Nicolae Lascu
Self-employed at Origami Studio starting with 2006

Architecture As Archive – The Ethics Of Adding New Layers

Alexandra PACESCU

Abstract

Architecture can be regarded upon as an archive of values, emotions, tradition and change that communities undergo at certain times. It is a reflection of successive steps in evolution, human quests and historic stages, archaeological layers of a communal lifestyle. Given these premises, architecture generates its own realm or landscape, an ideal manifestation of the genius loci Norberg Schulz was discussing at the beginning of the '80s. If we are to surpass the ever-recurrent debate on the issue of keeping the historic "frozen-in-time" versus turning a profit out of it, one can profess that it is a question of ethics to determine how to add new layers onto something that is already complete and coherent without losing or deteriorating its meaning. Adding-on is not solely a matter of architectural language, although this is crucial nonetheless, but also a matter of the ethics of the added value, both in terms of concept and function. Adding new to

the old is a difficult endeavor that implies risky choices on the part of the architect, choises that reflect the humbleness, the modesty, in other words tamed ego.

Without setting the goal of coming up with a set of "know-how" rules, this presentation aims to start a debate on the topic of how to set the contemporary architecture next to the historic one. By discussing some examples of up-to-date projects, it intends to identify and categorize different means by which the new relates to the old (horizontal expansion, with or without visible joints or connected through the underground layer, vertical expansion – ex.Fondation Caixa, or expanding towards the inside, where the added parts never come into direct contact with the outer shell). The last decades have shown that the ways to add and overlap different gestures in architecture do not comply to a set of rules of composition any longer. Rules that in olden times seemed set in stone, as the need to articulate different volumes now seem obsolete, distorted, irrelevant. The limit between sincerity in architecture and historic dissimulation now becomes blurry and confused. In this time of post-Post-Modern unsteady shifts and turns that have not come up with an official name yet, "collage" seems to be the new rule of composition. This paper sets out to make a critical inquiry into these new and diverse attitudes, by discussing examples that are different, even opposing in nature, in order to demonstrate, now more than ever, the absence of any set of rules. All these courses of action and questions raised are part of the debate within the studios at University and useful as teaching tools, since they are reflected into the projects that involve the issue of building in sensitive historical urban contexts (some examples of students' work may be given here, if needed).

Contemporary architecture has often been accused of being an architecture "without people", of not catering to the needs of the beneficiary but merely following abstract aesthetical criteria. This becomes more than obvious when we set the contemporary in opposition with the old architecture that has already been embraced by the community. This reaction of rejecting the new architecture of glass and concrete can be regarded as reticence to change as well as alienation in the face of uniformity, constant refrain that stemmed from the beginnings of the Modern Movement. The Post-Modern era seems not to have come up with proper answers on this regard, constantly distilling architecture to the point that it is no

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longer conceptually recognizable to its users. In other words, architecture does not tell stories that the users can relate to. Contextual design seems to have disappeared in most projects or has reached a level of abstraction that keeps it from reaching the target-audience. There are, however, notable exceptions to every rule. The question remaining is what can be seen as a limit of innovation and personal expression that can be considered ethical when juxtaposing new and old architecture. Obviously this limit differs from person to person since any architectural gesture comes with a degree of subjectiveness that varies with the recipient. Taking this into account, questioning the limits remains a didactic endeavor with multiple answers.

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Keywords: *archive, memory, add-on, extension, architectural language, old vs. new, historical, contemporary*

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Alexandra TEODOR

PhD, teaching assistant, "Ion Mincu" University of Architecture and Urbanism, Romania

alexandra_teodor@yahoo.com

The main preoccupations concern different but complementary fields, such as urban and architectural history, archaeological monuments and sites, built heritage conservation policies and practice, and also IT technologies for data management in the up-mentioned domains.

So far, my main research evolved around archaeological sites, more specific the integration and interpretation of published documentation regarding urban and military centers of Late Antique Dobruja (today, in Romania and Bulgaria), mainly from an urbanistical point of view. This direction was recently marked through a PhD thesis (2014).

Built heritage conservation policies and practice were approached during my final college years, materialized in the diploma project concerning the conservation of some archaeological ruins (2009). These matters are now reactivated in my research priorities.

IT technologies for data management are one of the most provocative matters when applied to cultural heritage. I believe they are more than necessary in order to reach sustainable solutions to the general and bothering issues related to built heritage, which is why I always try to integrate them in my research methodology. Last, but not least, as a collaborator of the History & Theory of Architecture and Heritage Conservation Department (since 2010), most of the domains mentioned above are, more or less, the background of my didactic activity themes, which currently concern especially architectural history and built heritage interventions.

Where Were We? A Preliminary Evaluation On The Protection Policies Of Built Heritage In Romania According To The Official Institutions' Journals (1908-2011)

Alexandra TEODOR

Abstract

The study begins from the general conveyed idea that something is wrong with our built heritage or, better said, very few things are right. In our days, an overwhelming feeling when thinking of this category of constructions is that no one seems to precisely know what is generally happening with built heritage, on one side, and also that no one seems to be truly responsible for the damages that very frequently occur. Many voices comment them, but their effects are quite limited. Nevertheless, also good things happen, mostly in the civil society's area; unfortunately, their actions only cover a small amount of the monuments and their multiple problems. To sum up, we may speak about a prolonged crisis – of a few decades – in the monuments' protection area; still, no powerful, coherent and realistic solutions rise on a national or at least regional level. On the other hand, solutions should be based on some diagnosis; no such demarche is publicly known either.

From where we stand, a thorough overall diagnosis over the national monuments' protection has become necessary. Such complex problems need to be analyzed from many perspectives in order to be better understood; therefore some criteria must be set. Here is a list with a plausible hierarchy on their impact and importance:

• The official institutions;

• The civil society;

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- The relations between official institutions and the civil society;

- The Monuments List;

- Local specialized schools;

- Local specialized literature.

Covering all the issues listed above would be a realistic plan for a dedicated large team made up from active specialists in this domain. One of the possible starting points – which will be approached in this paper – is a brief radiography on the last mentioned aspect: Local specialized literature, with a special look on materials dedicated to monuments' protection policies. Perhaps the best study case in this direction are the National Monuments Committee's publications (both the Commission and its publications having changed names several times since their beginnings, as also seen below), since they reflect, among other aspects, the official institutions' policies, the various problems occurred, considered solutions etc., as well as their evolution. The time span considered starts with 1908, when the first periodical publication came to light, ending with the last currently published number in 2011 of BCMI (see below). The main periodicals published in this interval are, according to official sources (http://patrimoniu.gov.ro/ro/bcmi-istoric):

- Buletinul Comisiunii Monumentelor Istorice (BCMI, 1908 – 1945 // Bulletin of the National Monuments Committee);

- Buletinul Monumentelor Istorice (BMI, 1970-1973 // Historical Monuments Bulletin);

- Revista Muzeelor și Monumentelor - seria Monumente Istorice și de Artă (RMM-MIA, 1974-1989 // Museums and Monuments Journal – Art and Historical Monuments series)

- Buletinul Comisiei Monumentelor Istorice (BCMI, 1990-present // Bulletin of the National Monuments Committee);

- Revista Monumentelor Istorice (RMI, 1990-present // Historical Monuments Journal).

From their contents, our attention is drawn by articles referring especially to:

- The official institutions' activity and reports;

- The relevant international charters' reception;

- Legislation;

- Approached issues and proposed solutions on various meetings, symposia, conferences etc.;

- Critical reviews on accomplished restoration projects or general conservation problems.

Such an analysis can put some (other) light on many aspects – also in a documented manner, not only empirical –, for instance the official institutions' evolution in their general activity and transparency; the highly possible contradictions between principles postulated by international charters, adopted by the national legislation, and the general practice; past issues and solutions compared to the present ones, as well as past issues and solutions in light of current protection principles; general transparency policy of restoration practice, and so on.

This approach would probably be far from reaching actual solutions, but it could be a useful research in the overall diagnosis we need in order to provide and implement solutions for the historical monuments' protection.

Keywords: *protection policies; national monuments;*

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Ştefan MIHĂILESCU

Arch PhD, Assistent, "Ion Mincu" University of Architecture and Urbanism, Romania

stef_mihailescu@yahoo.com

2004-2014 - University of Architecture and Urbanism "Ion Mincu"
Dr.Architect, Assistant
Lectures workshop, prof.dr.arh.Daniela Rădulescu-Andronicus, UAUIM
Member in the commission sketch drawings Depart.Sinteza Design
Member within the diploma committee, commission secretary
Research:
2014 -Participation at the International Scientific Session "Argument - Ambient sustainable" Organizer: UAUIM Bucharest, Faculty of Architecture, Design Synthesis Department, Location: Bucharest, Bucharest UAUIM 29-30 May;
2014 - Moderator for the Scientific Session phase # 1 - "Argument - Sustainable Ambient"
2014 - Author of the article / "Star architecture versus Sustainable architecture" / Argument 6/2014 "Argument - Sustainable Ambient";
2014 - Co-author of the article "Three case studies - a discussion on sustainable environment. London: City Hall, Swiss Re, the Shard" / Argument 6/2014 "Argument - Sustainable Ambient" Authors: S.Mihailescu, M.Mihaila, M. Zamfir;
2014 - Co-author of the article "Approach to detail from: architecture and education. Projects and exercises, year of study 4-5-6th, Faculty of Architecture", Scientific Session "Scientific Session Architecture detail, tradition and contemporaneity", Authors: M.Mihaila, S.Mihailescu;
2013 - Participation in International Scientific Session "Argument - Urban Experiments / Cultural Experiments";
2013 - Moderator Scientific Session phase # 1 - "Argument - Urban Experiments / Cultural Experiments" scientific session with international participation;
2013 - Author Article / "Sustainable Cities" / Argument 5/2013 "Argument - Urban Experiments / Cultural Experiments";
2013 - Participation in Scientific Session - "Space. Art. Architecture", National Symposium;
2013 - Author of the article "The human factor between technology and sustainability" Romhotel symposium

book "Landscape cultural.Arhitectura.Tendinte.";
2013 - Participant at the round table "European Cultural Capitals - attitudes and Decisions - architectures and spaces, Between tradition and innovation", by Marina Mihaila;
2012 - Participation in Scientific Session - "ICAR - Roumanian convention of architecture and design";
2012 - Author of the article / "Adding intelligence to green buildings" / ICAR - Roumanian convention of architecture and design;
2012 - Participation in Scientific Session - / "Sustainable Cities" / "Urbanism / Architecture / Construction";
2012 - Author of the article "Sustainable Development in times of crisis", in the newspaper "Urbanism. Arhitectura.Constructii" vol4;
2012 - Author of the article "Sustainability: Reducing energy costs in existing buildings" r Argument 4/2012-Upgrade-development by continuity;
2011 - Author of the article / "Thermal rehabilitation of residential buildings" / "Architecture and Technology";
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2011 - Moderator Scientific Session Phase # 1 - "Upgrade - development through continuity";

The Evolo Competitions - Visions About The Far/ Near Future

Ştefan MIHĂILESCU

Abstract

International competitions shows also that the main factor in winning a leading position in the contest is related to the capacity to innovate and at the same time to build better and more connect solutions with the topic's subject. You will find curled discourses that are reaching a wide range of issues that are interdependent with outside factors as well as discourses that are reeling solely on technology and on the need of change, that are only about a new and unexpected

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character of the design. In the design and construction culture, the innovation has long been linked to the aspects of aesthetic novelty. Through sustainable design we are forced to innovate, to change the language of the design elements in accordance with the requirements of society and we have to overcome the cultural change made just for the beauty of the picture (image).

The Evolo competitions are very interesting, unfortunally mostly of the winners are coming up with solutions to mitigate the effects and not to contest the main causes (solar umbrella to protect the sea ice, water towers, green lungs for polluted cities). The substance of the projects it is not to be found in the projected image but in the influence of the conceptual speech and in the large number of problems taken under consideration.

EVOLO 2014

Project title: Vernacular Versatility

Architect: Yong Ju Lee, United States of America

The winning project in 2014 brings a number of elements that attracted the attention of the jury and the ones that are analyzing the project: the proposal is based on the reinterpretation of a traditional kind of building (Hanok), specific to the country of origin (Korea) and proposes the use of wood for constructions developed in medium height using a particular structural model.

EVOLO 2013

Project title: Polar Umbrella Buoyant Skyscraper Protects and Regenerates the Polar Ice Caps

Architects: Derek Pirozzi, United States of America

The project aims to come up with a solution to protect the glacier icecap that unfortunately is in a melting process. The proposed solution is a technological response applied to a local problem, an approach that does not encourages future actions of humanity to counter its own mistakes. I can not get over the fact that such a structure, made in future conditions has a price in terms of increased con-

sumption of materials, technology and last but not least transportation and also deals with the effect and not with the cause of the problem.

EVOLO 2012

Project title: Himalaya Water Towers

Architects: Zhi Zheng, Hongchuan Zhao, Dongbai Song, China.

The project focuses on a major issue that affects a large number of people. The Himalayan Mountains serves a very large eco-system, directly and indirectly influencing the lives of 3 billion people (Curray & Moore, 1971). This area is known as "the third pole" because here the amount of snow and ice is exceeded only by the two poles of the earth, the North Pole and South Pole. The winning project, is a proposal that responds to this problems in a highly futuristic and technologists way. The main idea is to develop high towers with water storage role both in liquid and solid state, given their location at a great height.

The last three winning projects of the 1st place in Evolo contests, unfortunately are demonstrating that "energy efficiency has been seen to centre on the design of more efficient mechanical systems, rather than examining the use factors, such as the passive elements of the building, to engage in synergies that lead to an integrated solution." (Hyde, 2008, pag. 24)

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Keywords: *visions, competitions, future, technology,sustainability*

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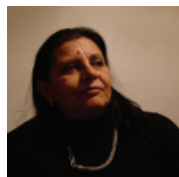
Mariana CROITORU

PhD, "Ion Mincu" University of Architecture and Urbanism, Romania

mari_cro@yahoo.com

PhD Architect, Lecturer at the "Ion Mincu" University of Architecture and Urbanism, Bucharest (Romania)
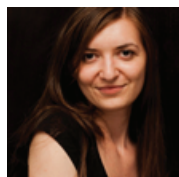
Ioana Cătălina VĂRZARU

PhD res., "Ion Mincu" University of Architecture and Urbanism, Romania

catalina86v@yahoo.com

Architect, PhD res., Assistant teacher at the "Ion Mincu" University of Architecture and Urbanism, Bucharest (Romania)

130 Years Since The Birth Of Architect Duiliu Marcu

Mariana CROITORU, Ioana Cătălina VĂRZARU

Abstract

The evolution of the Romanian architecture comprises of a logical succession of different styles, which can also appear simultaneously. These currents are less or more antagonistic, but their usage is mostly a consequence of the evolution of the Romanian society as a whole and the widespread European vision regarding the arts.

The most important phase in the evolution of Romanian architecture is the period between World War I and World War II, which marks its plenitude. It is the époque of Greater Romania, when the Romanian state enjoys, especially in the 1930s, a unique prosperity for our people. Consequently, the Romanian architecture of the period is extremely diversified. In this context, three different orientations coexist: the neo-Romanian style, which became the "official style" of Greater Romania, the late eclectic style and Modernism.

The stylistic cohabitation of the three tendencies was a permanent characteristic of this period. The three trends can also coexist at the construction at the same building. The first trend is that of the architects that continue to promote the neo-Romanian style, which is imposed by some local construction regulations and requested by public authorities for administrative buildings, but also by many common individuals for their own homes.

The second category of architects is that of the eclectic style perpetuators (Nicolae Ghica-Budești, George Matei Cantacuzino or Duiliu Marcu, at the beginning of his career).

The third tendency is that of the new Avant-garde and modernist architecture, whose pioneers are Marcel Iancu as an Avant-garde artist, and Horia Creangă, as a modernist. Vernacular Modernism, "well-tempered" Modernism or Art Déco and the classicist Modernism of the 1930s-1940s are all subdivisions or stages in the evolution of the new architecture. Distinct styles of Modernism are Art Déco and the classicist Modernism, whose subdivision is the "King Charles II style". This style is quickly adopted by illustrious architects, such as Petre Antonescu or Duiliu Marcu, who also is its most important figure.

Marcu demonstrates an unprecedented ability to work with different styles. His career is extremely complex and shows a spectacular capacity to adapt and create valuable buildings in any architectural style. Because he studied in Paris, he was influenced, at the start of his career, by the French academism. He slowly moved on, to the neo-Romanian style, and ended up invented his own style, a modern architecture similar to Art Deco, with classical elements.

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He achieves success along with the state architecture of the "King Charles II" style, which includes state orders and participations to international architecture exhibitions. Many of these orders and these exhibition participations, such as those from Barcelona in 1929 and Paris in 1937, are tied to Duiliu Marcu's name. Apparently, he was the favorite architect of King Charles II.

Duiliu Marcu's career is a mirror image of the historical evolution of the architecture, split in three main parts: "The Classic Architecture" (1912-1925), "The Traditional Architecture" (1920-1930) and "The Romanian Modern Architecture" (1930-1945). These are, according the architect's monographs, synonyms for the eclectic style, for the neo-Romanian style and for Modernism respectively.

Marcu's career reaches its apogee during its final, modernist stage. His modernist creations can be divided into four main areas of interest: public buildings, apartment and office buildings, individual residences and exhibition pavilions.

Nonetheless, the architect was also sporadically active in the field of religious architecture. He designed various burial vaults in the Bellu Cemetery in Bucharest and a chapel for the Blank family, in Băneasa (1927-1929). In 1913 he won a projects competition for the construction of the Madona Dudu Cathedral in Craiova. Marcu also designed the first Romanian crematory, in 1925.

Duiliu Marcu was an overwhelming personality. 100 completed projects and approximately 150 designs made up his vast career.

The architect was born in Calafat, on the 25th of March 1885. His mother was unemployed, while his father was a captain of the Royal Army. He went to primary school in Fălticeni, but started high school in Dorohoi, where he stayed one year. In 1900 he transferred to the sciences department of Charles I High School in Craiova. In 1905, Duiliu Marcu decides to continue his studies at the Architecture School of Bucharest, where he obtains the best score at the entrance examination. After just a year in Bucharest, he heads for Paris, where he studies at the famous Beaux Art School. In 1912, Marcu returns to Romania, after successfully finishing his studies in France.

Marcu was also involved in education, as a professor for almost three decades, between 1929 and 1957, at the Architecture Academy of Bucharest. After 1945, he is mostly active only as a professor. Between 1952 and 1966, Marcu is the president of Romanian Architects' Union. At the same time, he is, from 1955 onwards, a full member of the Romanian Academy. Duiliu Marcu passed away on the 9th of March 1966. He is buried at the Bellu Cemetery, on the Academicians' Walkway, along many other illustrious Romanians.

I firmly believe that Duiliu Marcu can be accurately described as "THE DETAIL ARCHITECT OF THE ROMANIAN MODERNISM", especially for his care for details. Therefore, every single bit of Marcu's construction is studied. The combinations of raw materials, the illumination of the chambers, the furniture and the other decorative elements enrich the interiors and give birth to a new style, which I dare to name "the Duiliu Marcu style".

Actually, Duiliu Marcu's works reflect the personality of the most complex architect of the Romanian Architecture between the two World Wars. After 1950, his performances were equaled by no one. Despite these beliefs, the architect humbly and rhetorically asks himself, while emphasizing the virtues of an original and modern architecture, which guided him throughout his career:

"Have I really succeeded? I can only say (…) that I am far from being content with what I have achieved."

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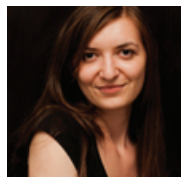
Ioana Cătălina VĂRZARU

PhD res., "Ion Mincu" University of Architecture and Urbanism, Romania

catalina86v@yahoo.com

Architect, PhD res., Assistant teacher at the "Ion Mincu" University of Architecture and Urbanism, Bucharest (Romania)

Houses Of Culture Cultural Center During The Communist Regime

Ioana Cătălina VĂRZARU

Abstract

In Romania, the idea of leisure has been found in people's lives since the beginning of times. Handicraft evening sitting, followed by various workers' circles, and then the coteries formed amongst intellectual communities - are just few examples that have preceded and actually led to the emergence of these houses of culture.

After the imposition of the Soviet model, "culture" is transformed into "mass culture". At this moment, the need to increase the spirit of social responsibility is achieved by consciously adopting the ideals of a socialist society. Houses of Culture were under the political protection of Nicu Ceausescu, son of the President and the head of Communist Youth, who appeared to be more liberal. As a response to a social order in which the main investor was the State, the House of Culture becomes a means of expressing the communist ideology.

Another issue under discussion is the typification – The use of type-projects, which were rather rigid, is increasing; cultural buildings thus become important endowments to localities. This is what led to the depersonalization and monotony of current urban centers. Regarding the impact on the community, their current state

sometimes denotes a discussion on the program as well as the position within the city – they have often been designed as oversized in relation to the size of the urban context. These errors were probably issued by unrealistic social analysis and a false adaptation of the communist party to the specific demands of the localities.

Because, despite the fact that they were functional - probably because they were the only alternative for cultural and artistic activities, the Houses of Culture represented the means by which those in power could control the masses without the obvious obstruction of their needs.

It is interesting how these constructions remained in the memory of the citizens, and what people's attitude towards them is today. Control, propaganda, ordering of masses, promoting collective society (rather than the individual) are key words to describe the purpose of these buildings. Perhaps the rejection that today's population feels towards participating in the activities that are currently held there, comes precisely from this juxtaposition of the concept of culture and that of the ideological tool. That is why, today, the legacy of these cultural buildings, as a network, is being branded as communist ideology.

Although there have been many initiatives, from architects as well as from students regarding the rehabilitation of the former Houses of Culture/ Unions Houses/ Houses of Science and Technology for Youth, only few of them materialized. Many of the Houses are today in the same form - the same architectural language. Therefore we find buildings from that period have been "renovated" hastily, using building materials that express something totally different than the original merely drawn by the desire to sell an innovative image - image that often ends up being insubstantial.

I propose an investigation of the Cultural Centers in Romania, focusing, to the same extent, on the history of the architectural program and its metamorphosis during the communist, as well as post-communist eras.

I am trying to discuss the issue of the abandoned communist cultural programme, especially the Romanian one. How can we refurbish/ reconvert or "heal" these cultural buildings, and how can we envision the results?

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With this purpose in mind, the research focuses on the actual state of the unfinished structure of the 'House of Science and Technology for Youth' from Giurgiu, started in 1985 and unfinished after the fall of the communist regime. The case becomes interesting when you know there are proposals to finalise the construction, but the authorities seemed to be sceptical about the need of culture in the city Giurgiu.

Anca RUSU

arch., ARHIPERA Association, Romania

arcstudio.ro@gmail.com

Anca Rusu has received the architectural qualification in 1993 and a Master of Architecture in 2005 at "Ion Mincu" University of Architecture and Urbanism in Bucharest. Anca Rusu has started her professional practice since 1995 and from 2000 is running her own architectural company. Since 2014, Anca Rusu is a member of Arhipera Association. In 2014 she became a PhD Student at "Ion Mincu" University of Architecture and Urbanism in Bucharest and was invited to conduct the workshop and practical activities at SIASPA interactive non-formal school (Arhipera International School of Social Participatory Architecture)

Communicative Architecture For Rebuilding Communities And Lives

Anca RUSU

Abstract

The Romanian communities have many scars. First they have been destroyed by the communism, second they continued to preserve their broken links during the last twenty-five years of democracy, third they wear very proudly the existing growing gaps between rich and poor people.

Sometimes the authorities believe that only thru building social houses they can eradicate the poverty, they can change the social status of the people, and they can improve the life and hygiene conditions, but the reality is nothing is changing in that way.

There are many new social houses devastated and abandoned, that were never occupied by the people. There are still very poor people who don't want to leave

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their old and very broken homes for new and modern houses, maybe just because nobody asked them about their opinions before building them, but they prefer to live in inappropriate conditions in very crowded spaces, with no electric power, no heating, no water and no sewerage system, in the same place with their animals. Something was going wrong here, but we should understand what is the real problem. Otherwise we will continue to build, and spend time and money, but change nothing inside the society.

For us is very clear the social status is given by the house. This is the way we was educated. We used to be scared of things we are not capable to understand. But the architect should be first a good listener and should be able first to communicate using words, this is the way to achieve the best results.

The Peruvian economist, Hernando de Soto, in his article "What if you can't prove you had a house?", published by International Herald Tribune/New York Times, on 20th of January 2006, demonstrated the necessity of creating the initial capital for eradication of the poverty. Because having a house, a place to live, and a identity card that can prove your existence, is the standard way to be. But if in other cultures this is not essential? And if for other cultures is very important to prove you have a sheep?

That should be the real role of the architect - The architect should be able to understand the cultural differences and, because the architect is a creator, should be able to make a good house that should be first a home, not only a shelter. We should be able to understand the needs of every person. The people are not the same, even if they can look very alike, and their needs can be very different.

But is not enough just to build the perfect house for one family, the new communicative architecture should serve to rebuild the destroyed communities by reconstructing links. The broken links can be rebuild by mapping the community, the roots, the priorities, the habits, the traditions, and taking care of them. And this could be the real humanitarian and educational role of the architecture. The architecture should show it's democratic face. The architecture should have a soul, otherwise will never work in some certain situations.

Arif Hassan indicated if the communities are neglected in decision making, the project implementation will lose the communities themselves. The new architecture should prove the respect, and this should be the key aspect in rebuilding communities and lives. We should find an equilibrium between the need for speed and the communities needs.

Keywords: *Social architecture, rebuilding communities, social houses, poverty, communicative architecture, research projects.*

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Ruxandra GRIGORAS

MA stud., "Ion Mincu" University of Architecture and Urbanism, Romania

ruxandra.grig@yahoo.ro

I am an MA architecture student from UAUIM, currently studying in Brussels with an Erasmus scholarship.

Participatory Interventions In Polish Public Space

Ruxandra GRIGORAS

Abstract

Participatory architecture has emerged as a means to criticise actively the contemporary spatial conception of public realm which places the citizen outside the designing process and delivers finite objects. This develops in a post-industrial society; actorship is abolished by default and people are reduced to simple consumers, carried into a vicious circle of infinite production with no other purpose than itself.

The premise of this paper is that public space finds a sort of alter-ego in the eastern part of Europe and the purpose is to question the symmetrical relationship between the architectural (see participatory) project and the public context of its implantation site, given this duality. Is participation carried out by the same principles everywhere? Is it appropriate to analyze public space by the same means everywhere? Do Citizens exist or a further nuancing ought to be expressed in order to identify multiple social entities that may shape interventions differently depending on geo-socio-political factors?

Nowadays, having a global view on public space and how it is perceived collectively comes often before any other reference. Or, starting from the Polish city of Wroclaw, the European cultural capital for 2016 together with Spanish San Sebastian, we have established a duality that cannot be reduced and treated uniquely in what the public space is concerned.

Due to an historical evolution which determined several points of reinventing or reconstructing its identity (including decades under Communism), the polish public space is today between two main directions that overshadow each other: the overcome of its intrinsic condition and the external process of globalization. It exists as a presence in itself, as a natural proof of urban development, however it lacks the presence of its defining element: the citizen. Therefore any architectural project developed here that supposes involving him as an active part has to redefine its boundaries and instruments.

The paper seeks to show how a participative trajectory that focuses on reference-projects like the ones developed by European architecture collectives(AAA or ETC Collectif both located in France, or Raumlabor, in Berlin, to give just few examples) has to define a specific approach in the polish context: the systemic characteristics identified in Wroclaw show an irreconcilable separation between the individual and the public space, so much so any sense of awareness or process of appropriation become impossible. Moreover this absence is prolonged by the constant interposition of political local authority.

Facing these problems, the project must recalibrate itself by seeking to point directly to this absence. Building the city with the community implies the existence of a community; does its absence annul any intervention or should it give another purpose to the architecture project such as reviving, (re)creating a public conscience? Building is conceived therefore on its anthropological and immaterial basis. It becomes a process of constant questioning. The involvement of community is not the objective anymore. Its place is taken by shaping a civic entity aware of its capabilities and rights or at least by introducing the population with the idea of such an entity.

Keywords: *eastern public space, civic involvement, absence, individual*

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Ana Elisabeta BOTEZ

Dr., "Ion Mincu" University of Architecture and Urbanism, Romania

anabotez@yahoo.copm

Dr. Ana Elisabeta BOTEZ, architect, assistant professor at the University of Architecture and Urbanism "Ion Mincu" in Bucharest. Degrees: B. Arch. from "Ion Mincu" in 2000; M. S. Arch. in the program "The Anthropology of Sacred Space" from "Ion Mincu" in 2003; M. S. Arch. from the University of Cincinnati in 2011; doctoral dissertation defended at "Ion Mincu" in February 2012. Research interests: various aspects of Orthodox Christian church architecture. Architectural design work: from 1999 to 2005, with Professor Mihai Opreanu, projects for the restoration of various churches and monasteries in Romania, the remodeling of two churches in Galați and the design of a new church for Gologanu Monastery in Galați County; currently working on a funerary chapel complex for a church in Ilfov county, Romania.

The Clash Of Zeitgeist And Timelessness: The Challenges Of Building Traditional Orthodox Christian Architecture Today

Ana Elisabeta BOTEZ

Abstract

In Romania, the communist regime stifled the development of religious architecture for many decades, leading to an acute need of new places of worship which in the last twenty-five years has been answered, for the most part, without the proper consideration. However, some noteworthy progress has been made, which should be acknowledged and evaluated in order for it to have a positive impact on the design of new churches.

The root of the difficulties encountered by the architects who try to tackle this delicate task is a conflict of worldviews between the Orthodox Christian culture and the contemporary secularized Western (or perhaps Westernized) culture. The Orthodox Christian worldview has not changed for almost two thousand years, leading to an enduring architectural tradition which, after the important innovations which defined the liturgical space in the Early Christian and Early Byzantine eras, limited change and variation to regional particularities, adaptation to locally available materials, and minor influences coming from other cultures. On the other hand, the available materials and technologies and, to a degree, even the mindset and professional education of architects, belong to a completely different culture. This potential conflict needs to be negotiated in a thoughtful manner by the designing architects. The most difficult task is, of course, to re-create the traditional, symbolism-rich configurations while using the construction materials and technologies available to us today.

The paper will revise briefly the symbolism of the church as a place of worship and how it was conveyed by the geometry, the lighting and, to a degree, even the construction of traditional historical churches, in order to set up the criteria for evaluating new church architecture. This evaluation will focus on three case studies, with other examples to be considered as needed. The first case study will be the Church of the Students from Timișoara, designed by architect Șerban Sturdza, which is a faithful copy of a historical church, St. Nicholas from Curtea de Argeș (14th century). The façades imitate even the details of the original ones, down to the shape and size of bricks, stones and mortar joints, while interior views before plastering show that industrial, standard brick was used. This design shows that the use of traditional materials is possible; however the excessive restraint shown in following the original makes this an exceptional gesture that cannot be repeated by many architects: how many exact copies of historical churches can we build? The second case study is the church of St. John the Baptist from Alba Iulia, designed by architect Dorin Ștefan. Unlike the previous example, this is definitely not an exact copy of anything, but a fresh approach to tradition. The architect takes some unprecedented liberties in his work; however his main purpose is not innovation for its own sake, but "to set aside any aesthetic search" in the attempt of creating the appropriate "encasement for the sacrament". He was also trying

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to capture and convey his childhood experience of going to church with his grand-mother. While Ștefan's approach is strongly rooted in tradition, it also very personal and it would be very difficult for it to serve as an example for other architects. The third example is a chapel in Bucharest designed by architect Radu Teacă. The architect tried to capture the essence of traditional geometry and also the essence of traditional construction, in his use of brickwork as the shell around the roof and vaults. His approach, although intended as an actualization and reduction to essentials of traditional Romanian church architecture, is in fact so successful that it seems to be based on Byzantine typologies. The most noteworthy feature is perhaps the craftsmanship of the carefully jointed brickwork, which enriches the severe geometry of this chapel with the warm materiality of a handmade surface.

The conclusions will focus on the strong and weak points of the three design approaches and how they open up paths to be explored in future designs of Orthodox Christian churches.

Keywords: *Orthodox Christian church architecture, Romanian church architecture, contemporary church architecture*
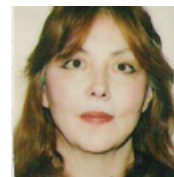
Dana CHIRVAI

PhD, prof, "Ion Mincu" University of Architecture and Urbanism, Romania

aldconstruct@gmail.com

Dana Chirvai is Phd. Professor at „Ion Mincu„ University of Architecture and Urbanism Bucharest.
She is Member of OAR. She is Professor at Basics of Architectural Design Department – UAUIM Bucharest.
Dana Chirvai has an authored book "ORAȘUL SIMTE".

Alina VOICULET

Lecturer PhD Architect, "Ion Mincu" University of Architecture and Urbanism, Romania

alina_v@msn.com

Graduate in 1998 of Faculty of Architecture within the University of Architecture and Urbanism "Ion Mincu", in 2000 of Master in Urban Planning. In 2007 has obtained PhD for the thesis "Architecture in Nature - Nature in Architecture - Overlapping, Transfer and Hybridization."
She is Lecturer Professor at Faculty of Architecture, "Ion Mincu" University of Architecture and Urbanism, Bucharest.
She has an experience of 16 years in teaching and tutoring, and also she has an experience of 16 years in architecture professional field.

Marius SOLON

Assistant Professor, "Ion Mincu" University of Architecture and Urbanism, Romania

marius_solon@yahoo.com

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Mapping The Genetic Jungle Generating The Urban Space. (Urban Form)

Dana CHIRVAI, Alina VOICULET, Marius SOLON

Abstract

A scientific project that was conducted over a period of 15 years is aiming to identify all the genes contained in all the chromosomes of the human body is a source of great hope and also of considerable ethical dilemmas.

The scientist James Watson was awarded with the Nobel Prize for discovering the structure of DNA molecule bielicoidale, a complex organic compound that contains instructions according to which the desired the cells develops "an improvement" of human beings by correcting their genomes. Detection of genes whose abnormality causing certain diseases proves the potential of modern genetics, but also its limits.

Knowing that the yearly process for population increase (the latest studies of the United Nations) is 6.5% representing practically a doubling of every 11 years is outlined special magnitude of the problems that contemporary society lives. The question is: will we live longer. But really will we live better?

The essence of the urbanization process is the continuous develop of urban lifestyle in the two directions (extensive development of urban lifestyle alongside an intensive one).

Urban image is scroll through a metamorphosis process from the city with the unique identity to the city connected to global information streams.

If Kevin Lynch "focuses on identity and structure of urban images" [1] neither the fields less tangible of significance it should not be overlooked. Fields of meanings become the new mental space of the urban dweller and implicitly new image of the city.

Today when technological and scientific progress prefigures the possibility of a fantastic projects considered half a century ago, becomes thereby necessary to redefine the URBAN COMFORT and therefore QUALITY OF LIFE.

"The city that you imagine is the accumulation of stages and unique experiences. It is presented as an elastic system, vibrant defined The relationship between movements and events that are in the same time LINKED and AUTONOMOUS. We speak of a network system which is articulatds, information layers generating an outline which is fluctuating".[2] Dana Chirvai și Alexandru Vasiliu în "LOCUIREA SPRE O ARHITECTURĂ DURABILĂ", ED. UAUIM / HABITATION TOWARDS A SUSTAINABLE ARCHITECTURE

The hope that people can learn how to live on this planet without destroying the physical and social basis on which depends the human species should not remain a simple desideratum. The framework of our actions must adapt to new conditions.

Contemporary urban theory should be updated in an interdisciplinary manner with the areas such as cybernetics, medicine, geography, etc. "Without neglecting contemporary modes and new trends enveloping space defined at the interface level (interior and exterior) equally interesting for theoretical research and architectural practice" [3]

In conclusion, in addition to concern for the quality of urban life, cities must follow both spatial and social coherence and ensure continuity in development to allow adjustments without trauma or major costs.

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Keywords: *Space - MOLECULE - QUALITY OF LIFE*

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Thomas MICAL

Assoc Prof / PhD, University of South Australia, Australia

arch.intel.unisa@gmail.com

Thomas Mical is Associate Professor of Architectural Theory at the University of South Australia. He completed his M.Arch. at Harvard and his Ph.D. at Georgia Tech, and has practices in Chicago and Tokyo. He is the editor of Surrealism and Architecture (Routledge, 2005). He has taught and researched architectural theory, modernism, transparency, and alterity in the US, Canada, and Australia.

Transitive Utopias And Fluctuating Field Conditions

Thomas MICAL

Abstract

This presentation develops an argument to replace the early inoperative modern ideals of utopia (often manifest in visions of the instant urban fabric), or the postmodern ideal of heterotopia (reciprocally manifest as microcosmic institutions or territories of resistance), with the conceptual activation of the ideal of mobility as the conceptual basis for figures and forms of mobile or transitive utopias. The paradoxical hardening of urban forms and edges and processes of exclusion in the present time can be seen as a reflexive response to the growing insecurity of borders, identities, and place-bound meanings. Transitivity is not necessarily loss or displacement; it can and should convey the intentionality and directionality of movement from one situation to another, or from one territory to another. This paper proposes to speculate on the possibility of liberating the idealism driving utopian thinking and the visionary capacity of architects to propose new urban prototypes. The development of modern and postmodern urbanism in Chicago, including past, present, and future, built and unbuilt, will include recent hypothetical speculations from select designers, to highlight temporary episodic instances and intervals within the flows of the city, as a positive capability working backwards and forwards in history. Overall, this research will sketch a preliminary theory of the transitive utopia, as a thought experiment pursuing possibility of absolute mobility within hypermodernity.

This new hybrid research topic and methodology posits urban architecture as a test subject, and rethinks building permanence as a potential transitory typology of inflection and generator of arrays of identity transformations. In so doing, this expositional methodology contests the claims of the universal quantifiable spatial continuum, by proposing speculative urban scans and analysis to identify conditions of emergent othernesss, of situations of micro-alterity, including the overlooked, unusual, unexpected, and even the surreal, as sources of spatial and individual meaning and value. The condition of spatial alterity as imbedded blurred zones within the apparent spatial continuity of capital is offered as the source of innovation, an opportunity to note and define emergent field conditions (as specific cultural deformations of utopian configurations).

Keywords: *architectural theory, utopias, alterity, hypermodern*

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Andra BALTĂ

PhD St Architect, University of Central Lancashire, UK

abalta@uclan.ac.uk

Andra Balta is currently a PhD student. Her research is about the effects of coloured interactive lighting on teenagers' mood. She published few papers in the field of HCI and Serious Games.

Janet C. READ

PhD, University of Central Lancashire, UK

jcread@uclan.ac.uk

Her work with children as users of interactive technology helped to define a new research field and she has authored over 70 articles in the area of child computer interaction. She is chair of the International IFIP TC13 SIG on Interaction Design and Children and the Child Computer Interaction Community Chair for the prestigious ACM CHI Conference series. She has co-authored a key Elsevier text on Evaluating Children's Technologies.

Dan-Adrian IONESCU

Assist. Prof., PhD, "Ion Mincu" University of Architecture and Urbanism, Romania

ionescudan83@gmail.com

Dan Adrian Ionescu recently finished his PhD at Ion Mincu University of Architecture and Urbanism where he is also a lecturer. He is interested in the field of interactive art installations where he designed few devices: Triolin AV, Wake Up, BULA. He is also creating club/festival environments using both colour lighting and video mapping.

Teenagers' Mood Improved By Coloured Lights

Andra BALTĂ, Janet C. READ, Dan-Adrian IONESCU

Abstract

It is already known that colours have positive or negative effects on peoples' moods. People have different opinions regarding the same colour in a room [5]. For example, pinkish rooms were described in some studies as being "warm, gentle and stimulating; childish, young, fresh and funny", while others have described these same colours as "pushy, demanding and glaring; stale, tasteless, vulgar and slovenly." Contrary to pinkish rooms, greenish rooms were perceived as relaxing, calm, retreat rooms, which evoked connotations of nature. Spath [6] found that colours can influence mental and physical activity. According to Harrington [4] not all reds stimulate the same emotional response. He states there are four negative emotions (aggression, anger, rage, and terror) linked with dark yellow-reds, and five positive emotions (amazement, ecstasy, joy, love, and passion) associated with light blue-reds. According to Je [7] there are differences and similarities regarding colour preferences between Korean and Canadian students: students from both countries like red, blue, neutral colours and dislike yellow but there were different preferences regarding red-blue hues, red hues, grey hues and white hues [7]. There is no research to date with regard to the affect coloured light has on teenagers' mood. This paper presents the findings of a coloured light study in living environments seeking to understand how different coloured lights might affect teenagers' moods. Twenty-three British teenagers, aged 13-14 years old, male and female, participated in the 'Coloured Lights in my Bedroom' study which was held in a room with no windows so that the artificial lighting would not mix with natural lighting. Only 22 properly completed the questionnaire. One of them did not scale every emotion maybe because he did not know the meaning of the words.

In the study, participants were instructed to complete the PANAS Questionnaire (a mood scale which measures both positive and negative affect) under eight different coloured lights:: red, light-green, green, light-blue, blue, pink, yellow, and

white. Results show overall positive average results indicating that the participants have only experienced positive moods under each different colour. Light-green had the most positive effects on teenagers' mood followed by blue, light-blue, red, yellow, green, with pink and white being equal.

Our results contradict some studies and agree with others. The dark red light from this study created positive moods compared with the dark red colour from Harrington's [4] study which was associated with negative emotions. Ho¬wever, the reds from Harrington's [4] study are not red lights as used in the present study, therefore, the colour perception of reds might be different when comparing the two studies. According to Lee [12], red light is perceived as uncomfortable, but our results indicate otherwise with red light affecting in a positive way teenagers' mood. Research shows yellow light is the most pleasant and comfortable colour lighting, perceived as elegant [12]. Our study shows light-green light has the most positive effect upon teenagers' mood, yellow light being one of the last choices regarding the positive scale.

The study has thrown up many questions, especially about the possibility to map findings from studies of colour affect onto studies of coloured light affect. It is possible that the addition of lighting in the colour has a significant effect on the way the colour 'feels' to the participants. Future work is exploring this by asking teenagers to comment on printed colours in a large questionnaire study which asks about predicted affect of coloured walls and ceilings in teenage bedrooms.

Keywords: *Innovation, interactive design, colour light, teenagers*

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