Abstract Book:

7th Annual International Conference on
Architecture
3-6 July 2017, Athens, Greece

Edited by
Gregory T. Papanikos

2017

Abstracts

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Preface

This book includes the abstracts of all the papers presented at the *7th Annual International Conference on Architecture, 3-6 July 2017*, organized by the Athens Institute for Education and Research (ATINER).

In total 61 papers submitted by nearly 70 presenters, coming from 22 different countries (Australia, Brazil, China, Egypt, Finland, Germany, India, Israel, Italy, Japan, the Netherlands, Philippines, Poland, Portugal, Serbia, South Korea, Spain, Switzerland, Thailand, Turkey, UK and USA). The conference was organized into 17 sessions that included a variety of topic areas such as historical architecture, urbanism, building analysis and more. A full conference program can be found before the relevant abstracts. In accordance with ATINER's Publication Policy, the papers presented during this conference will be considered for inclusion in one of ATINER's many publications.

The purpose of this abstract book is to provide members of ATINER and other academics around the world with a resource through which to discover colleagues and additional research relevant to their own work. This purpose is in congruence with the overall mission of the association. ATINER was established in 1995 as an independent academic organization with the mission to become a forum where academics and researchers from all over the world could meet to exchange ideas on their research and consider the future developments of their fields of study.

It is our hope that through ATINER's conferences and publications, Athens will become a place where academics and researchers from all over the world regularly meet to discuss the developments of their discipline and present their work. Since 1995, ATINER has organized more than 400 international conferences and has published nearly 200 books. Academically, the institute is organized into seven research divisions and 37 research units. Each research unit organizes at least one annual conference and undertakes various small and large research projects.

For each of these events, the involvement of multiple parties is crucial. I would like to thank all the participants, the members of the organizing and academic committees, and most importantly the administration staff of ATINER for putting this conference and its subsequent publications together. Specific individuals are listed on the following page.

Gregory T. Papanikos
President

7th Annual International Conference on Architecture
3-6 July 2017, Athens, Greece
Organizing and Academic Committee

All ATINER's conferences are organized by the Academic Committee (https://www.atiner.gr/academic-committee) of the association.

This conference has been organized with the additional assistance of the following academics, who contributed by chairing the conference sessions and/or by reviewing the submitted abstracts and papers:

1. Gregory T. Papanikos, President, ATINER.
2. Nicholas N. Patricios, Director, Engineering & Architecture Division, ATINER, and Professor & Dean Emeritus, School of Architecture, University of Miami, USA.
3. Clara Germana Goncalves, Academic Member, ATINER, Researcher at CITAD, Lusiada University, Portugal and Assistant Professor at Faculty of Architecture, University of Lisbon, Portugal.
4. Mary Ellis, Director, Human Resources Division, ATINER & Senior Lecturer, National Institute for Education, Nanyang Technological University, Singapore.
5. Lineu Castello, Academic Member, ATINER & Professor, Federal University of Rio Grande do Sul (UFRGS), Brazil.
6. Vladimir Mako, Professor, University of Belgrade, Serbia.
7. George V. Priovolos, Academic Member, ATINER & Professor, Iona College, USA.
8. Julian Wekel, Director, Institute of Urban Planning and Housing, Germany.
9. Boguslaw Podhalanski, Head, Department of Architecture, Cracow University of Technology, Poland.
10. Luis Maria Bo-ot, Associate Professor, University of the Philippines, Philippines.
11. Ozlem Kandemir, Assistant Professor, Anadolu University, Turkey.
12. Pedro Belo Ravara, Assistant Professor, University of Lisbon, Portugal.
13. Riitta Niskanen, Academic Member, ATINER & Researcher, Lahti City Museum, Finland.
14. Sarah Breen Lovett, Postdoctoral Research Fellow, University of Sydney, Australia.
15. Ana Neiva, Assistant Lecturer / Researcher, University of Porto, Portugal.
16. Duygu Turgut, Research Assistant, Istanbul Technical University, Turkey.
17. Vassilis Skianis, Research Fellow, ATINER.
18. Olga Gkounta, Researcher, ATINER.
19. Hannah Howard, Research Assistant, ATINER.

FINAL CONFERENCE PROGRAM
7th Annual International Conference on Architecture,
3-6 July 2017 Athens, Greece

<u>**PROGRAM**</u>
Conference Venue: Titania Hotel, 52 Panepistimiou Avenue, Athens, Greece

C O N F E R E N C E   P R O G R A M

Monday 3 July 2017

08:00-09:00 Registration and Refreshments

09:00-09:30 (Room C-Mezzanine Floor) Welcome and Opening Address

Gregory T. Papanikos, President, ATINER.

09:30-11:00 Session I (Room A-Ground Floor): Historical Architecture	**09:30-11:00 Session II (Room B-Ground Floor): Technology and Energy Analysis I**
Chair: Nicholas N. Patricios, Director, Engineering & Architecture Research Division, ATINER, and Professor & Dean Emeritus, School of Architecture, University of Miami, USA.	**Chair:** Olga Gkounta, Researcher, Atiner.
1. Jianqiang Yang, Professor, Southeast University, China. Study on Characteristics and Value of Nanjing Historic City Form. 2. Luis Manuel Lourenco Serro, Professor / Researcher, Universidade Lusíada, Portugal. The Scenography Intervention in Romanticism Architecture in Portugal. 3. Jose Angel Hidalgo Arellano, Associate Professor, Xi'an Jiaotong - Liverpool University, China. Archiphany: Architecture as Manifestation. Four Visions of the Roman Pantheon. 4. Riitta Niskanen, Researcher, Lahti City Museum, Finland. Adjusting Cultural Values of Built Heritage with Modern Living Conveniences – An Example from Lahti, Finland. 5. Asmita Patwardhan, Visiting Faculty, Savitribai Phule Pune University, India. Architecture: An Heirloom.	1. <u>Luis Maria Bo-ot</u>, Associate Professor, University of the Philippines, Philippines, <u>Nadia Manalac</u>, Bank Officer 2, Central Bank of the Philippines, Philippines, <u>Anna Ruth Villareal</u>, Construction Manager, Rustan Coffee Corporation, Philippines & Ringer Manalang, Architect, University of the Philippines, Philippines. Study on the Application of the Salingaros Scaling Coherence Rule to Quezon Hall of the University of the Philippines. 2. Rungrat Tengkaoprasert, Assistant Professor, Thammasat University, Thailand. The Concept of Energy Conservation in Architectural Design and The Creation of Modern Thai Architectural Identity. 3. Sumavalee Chindapol, Lecturer, Chiang Mai University, Thailand. A Sustainable Impact of Retrofitting the Educational Buildings in Chiang Mai University, Thailand. 4. <u>Danae Phaedra Pocobelli</u>, PhD Student, Università degli Studi di Roma "Sapienza", Italy & Maria Grazia Turco, Associate Professor, Università degli Studi di Roma "Sapienza", Italy. Structural Consolidation of Aghios Konstantinos Church, Athens. 5. <u>Pooya Pakmehr</u>, PhD Student, ITU Istanbul Technical University, Turkey, <u>Selin Karagozler</u>, Research Assistant, Yasar University, Turkey & Mustafa Erkan Karaguler, MSc Student, ITU Istanbul Technical University, Turkey. The Energy Performance of Five Different Façades at Istanbul Climate from LCA Point of View.

11:00-12:30 Session III (Room A-Ground Floor): Approaches to Architecture I	11:00-12:30 Session IV (Room B-Ground Floor): Urbanism
Chair: Riitta Niskanen, Researcher, Lahti City Museum, Finland.	**Chair:** Luis Maria Bo-ot, Associate Professor, University of the Philippines, Philippines.
1. Vladimir Mako, Professor, University of Belgrade, Serbia. Lorenz Stoer and the Metaphor of Creative Power in Architecture. 2. Pedro Belo Ravara, Assistant Professor, Universidade de Lisboa, Portugal. The Consolidation of a Practice. 3. Ana Magalhaes, Assistant Professor / Research Fellow, Universidade Lusíada / CITAD, Portugal. Modern Movement Migrations: Architecture in Angola and Mozambique (1948-1975). 4. Burcin Basyazici, PhD Candidate, Istanbul Technical University, Turkey & Belkis Uluoglu, Professor, Istanbul Technical University, Turkey. The Phenomenon of Being Distinguished in Architecture; A Study on Pritzker Prize.	1. Boguslaw Podhalanski, Head, Department of Architecture, Cracow University of Technology, Poland. Is the Pythagorean Concept of the Structure of a City Valid in an Age of Globalisation? 2. Michael Obrien, Professor, Texas A&M University, USA. From Nano to Clusters: Neighborhood Retail Centers and Population Health: The Renovation of American Suburbs. 3. Tuba Sari, Research Assistant, Istanbul Technical University, Turkey. Changing Urban Pattern of Eminönü: Reproduction of Urban Space via Current Images and Function. 4. Jon Alvarez Fernandez, PhD Candidate, Waseda University, Japan. The Shift of Valuation and Management Model in Japanese Protected Townscapes, from a Tourism Point of View to a Local Community and Environment Point of View: Case Study of Uchiko Town Plan (1978-82), Kurayoshi Town (1998) and Ine Village (2004).
12:30-14:00 Session V (Room A-Ground Floor): Housing and Building Design I	**12:30-14:00 Session VI (Room B-Ground Floor): Inter and Transdisciplinary Relationships in Architecture I**
Chair: Pedro Belo Ravara, Assistant Professor, Universidade de Lisboa, Portugal.	**Chair:** Clara Germana Gonçalves, Academic Member, ATINER, Researcher at CITAD, Lusíada University, Lisbon, Portugal and Assistant Professor at Faculty of Architecture, University of Lisbon, Portugal.
1. Cigdem Cetin, Assistant Professor, Yasar University, Turkey, Zeynep Tuna Ultav, Assistant Professor, Yasar University, Turkey & Gulnur Ballice, Associate Professor, Yasar University, Turkey. The Effects of Interior Design Parameters on the Design Quality of Nurse Stations. 2. Goran Ivo Marinovic, Assistant Professor, Keimyung University, South Korea. The Relational Architect Embedded in Dialogue with Low-income Households: Two Chilean Case Studies of Incremental Housing. 3. Wiruj Somsopon, Assistant Professor, Thammasat University, Thailand & Choomket Sawangjaroen, Assistant Professor, Thammasat University, Thailand. Houses and Facilities Improvement Guideline by using Community Technology for Dependent Elderly or People with Disabilities in Thailand. 4. Rahmatollah Amirjani, PhD Student, University of Canberra, Australia. Social Housing: Three Tales. 5. Patricia Matias, Researcher, Universidade de Lisboa, Portugal. New Housing Solutions for Older Adults – The Case of Portugal.	1. Julian Wekel, Director, Institute of Urban Planning and Housing, Germany. New Aspects of German and European Planning Culture. 2. Lineu Castello, Professor, Federal University of Rio Grande do Sul (UFRGS), Brazil. A Transdisciplinary Touch in Architectural Reasoning. 3. Fatma Aliosman Culhaoglu, Researcher, TU Delft, The Netherlands. The Architecture of Dissensus: Partition of the Sensible in Philosophy and Architecture. 4. Sarah Breen Lovett, Postdoctoral Research Fellow, University of Sydney, Australia. Haptic, Habituated and HigherDwelling. 5. The MOMA exhibition "Endless Kiesler: Intersections of Art and Architecture.". 6. Dymitr Nowak, PhD Student, Poznan University of Technology, Poland & Jakub Niewinski, PhD Student, The Maria Grzegorzewska University, Poland. The School as a Space for Learning and Living.

14:00-15:00 Lunch15:00-16:30 Session VII (Room A-Ground Floor): Housing and Building Design II	15:00-16:30 Session VIII (Room B-Ground Floor): Inter and Transdisciplinary Relationships in Architecture II
Chair: Boguslaw Podhalanski, Head, Department of Architecture, Cracow University of Technology, Poland.	**Chair:** Sarah Breen Lovett, Postdoctoral Research Fellow, University of Sydney, Australia
1. Feyza Kuyucu, Lecturer, Gaziantep University, Turkey & Yasemen Say Ozer, Associate Professor, Yildiz Technical University, Turkey. Assessment of Station Houses as an Example of First Modern Housing in Gaziantep. 2. Emre Dedekarginoglu, Research Assistant, Hacettepe University, Turkey. "Gecekondu" as an Alternative Housing Solution for the Low-Income Population in Turkey. 3. Cassia Bartsch Nagle, PhD Candidate, University of São Paulo (USP), Brazil. Collective Housing in Brazil after the Economic Crisis: Analysis of Two Projects.	1. Susana Tavares dos Santos, Assistant Professor, Universidade Lusíada de Lisboa, Portugal. The First Decades of the Cinema and the New Society: Influences on Architecture. 2. *Amos Bar-Eli, Senior Lecturer, Holon Institute of Technology, Israel. Projection Surface and Architectural Space. 3. Carlos Lampreia Silva, Assistant Teacher, Universidade Lusíada de Lisboa, Portugal. Concept, Site and Material, a Contemporary Strategy in Art and Architecture. 4. Fabio Sorriga, PhD Student, Università degli Studi di Roma "Sapienza", Italy & Ruggero Lenci, Professor, Università degli Studi di Roma "Sapienza", Italy. Manipulated Traces: Architectural Post-Productions' Contemporary Techniques. 5. Duc Vien Le, PhD Student, Southeast University, China. Some Typical Problems in the Design of Private House in Vietnam from the Perspective of Tropical Passive Design.

16:30-18:30 Session IX (Room A-Ground Floor): *A Symposium on the Future Developments and Prospects of University and/or College Education in a Global World I*
Chair: George V. Priovolos, Academic Member, ATINER & Professor, Iona College, USA.
1. **Mary Ellis**, Senior Lecturer, National Institute for Education, Nanyang Technological University, Singapore. A Teacher Education Model for the 21st Century (TE 21): National Institute of Education, Nanyang Technological University, Singapore. 2. **Francisco Matus**, Teacher and Language Coordinator, Técnologica de Chile INACAP University, Chile. Some Challenges at Chilean University level. 3. **Jianqiang Yang**, Professor, Southeast University, China. Teaching, Research and International Collaboration: A Brief Introduction on School of Architecture, Southeast University. 4. **Boguslaw Podhalanski**, Head, Department of Architecture, Cracow University of Technology, Poland. 5. **Vladimir Mako**, Professor, University of Belgrade, Serbia. Education in Architecture and Design: Global Research issues and Local Practice Values. 6. **Jose Angel Hidalgo Arellano**, Associate Professor, Xi'an Jiaotong - Liverpool University, China. "Reflections about the concept of Identity". 7. **Luis Manuel Lourenco Serro**, Professor / Researcher, Universidade Lusíada, Portugal. A Critical Opinion about Architectural Education. For details on the discussion please click here.

21:00-23:00 The Pragmatic Symposium of the Conference as Organized in Ancient Athens with Dialogues, Food, Wine, Music and Dancing but fine tuned to Synchronous Ethics

Tuesday 4 July 2017

07:30-10:30 Session X: An Educational Urban Walk in Modern and Ancient Athens

Chair: Gregory Katsas, Vice President of Academic Affairs, ATINER & Associate Professor, The American College of Greece-Deree College, Greece.

Group Discussion on Ancient and Modern Athens.
Visit to the Most Important Historical and Cultural Monuments of the City (be prepared to walk and talk as in the ancient peripatetic school of Aristotle)

11:00-12:30 Session XI (Room A-Ground Floor): Housing and Building Design III	**11:00-12:30 Session XII (Room B-Ground Floor): Pedagogy**
Chair: Ozlem Kandemir, Assistant Professor, Anadolu University, Turkey.	**Chair:** Vladimir Mako, Professor, University of Belgrade, Serbia.
1. Duygu Turgut, Research Assistant, Istanbul Technical University, Turkey. Talas Houses an Analysis of Plan Typology. 2. Nandar Linn, PhD Student, Kyoto University, Japan & Masashi Kawasaki, Professor, Kyoto University, Japan. Spatial Characteristics of Contemporary Detached Houses in Mandalay Region, Myanmar. 3. Alessandro Porotto, PhD Candidate, École Polytechnique Fédérale de Lausanne, Switzerland. *Kleinwohnung* vs *Existenzminimum*. Social Housing Types from Inter-War Years. 4. Ioanni Delsante, Reader in Urban Design, University of Huddersfield, UK & Cong Zheng, PhD Student, Tongji University, China. Contemporary Chinese Architects and the Reference to Architectural Type. Courtyard based Case Studies.	1. Limor Harary, Head of Innovation and Technology Department, Gordon Academy College, Israel. Current Challenges of Technology Based Learning in Academia: A Model to Support Learning. 2. Samustpon Tanapant, Senior Lecturer, Thammasat University, Thailand & Kalaya Kovidvisith, Managing Director, FABLAB, Thailand. Digital Fabrication Laboratories: Collaborative Learning Models between Architectural Academic and Practice in Thailand. 3. Onay Budak, Lecturer, Istanbul Sehir University, Turkey & Ozlem Ersoy, Instructor, Gazi University, Turkey. The Examination of the Relationship between 4-5 Year Olds' Toy Preferences and Play Skills. 4. Marta Masdeu, PhD Student, University of Girona, Spain & Josep Fuses, Associate Professor, University of Girona, Spain. The Design Studio as a New Integrative and Experimental Learning Space: The Pedagogical Value of implementing BIM, Parametric Design and Digital Fabrication in Architectural Education. 5. Cengiz Ozmen, Head of Department, Assistant Professor, Cankaya University, Turkey. Theory and Application in the Teaching of Architectural Structures. 6. Basak Gucyeter, Assistant Professor, Eskisehir Osmangazi University, Turkey. Enhancing the Transdisciplinary Perception of Sustainability Concepts in Architectural Education.
12:30-14:00 Session XIII (Room A-Ground Floor): Approaches to Architecture II	**12:30-14:00 Session XIV (Room B-Ground Floor): Inter and Transdisciplinary Relationships in Architecture III**
Chair: Duygu Turgut, Research Assistant, Istanbul Technical University, Turkey.	**Chair:** Julian Wekel, Director, Institute of Urban Planning and Housing, Germany.
1. Ozlem Kandemir, Assistant Professor, Anadolu University, Turkey. Defining the Era of Architectural Design: The Digital Age. 2. Ana Neiva, Assistant Lecturer / Researcher, University of Porto, Portugal. Does "Curating Architecture Mean Building Architecture"? 3. Simone Solinas, PhD Candidate, University of	1. Devakumar Thenchery, Assistant Professor, Calicut University, India. Scrutinizing the Role of Cultural Spaces as a Common Factor in Tangible and the Intangible Cultural Heritage. 2. Qingyun Huang, PhD Candidate, Southeast University, China. Creation of "Genius loci" and Artistic Conception - Museum Design

Cagliari, Italy. The Wealth of a House Lives in its Empty Space. Vacuum Appropriation Strategies between Patio and Pavilion.	under the Co-Impact of Architectural Phenomenology and Traditional Taoism Thinking. 3. Francesca Coppolino, PhD Scholar, University of Naples Federico II, Italy. Ruins between Film and Architecture. 4. Ke Liu, PhD, Southeast University, China. Architecture and Cancer: Enhancing the Appropriate Environment of Cancer Rehabilitation Centre in Suzhou. 5. Nadia Bertolino, Research Fellow, Northumbria University, Newcastle Upon Tyne, UK & Sandra Costa Santos, Senior Lecturer, Northumbria University, Newcastle Upon Tyne, UK. Towards a Definition of 'Place'. Cross-Disciplinary Methodology for Interpolating Architectural and Sociological Data in Claremont Court, Edinburgh.

14:00-15:00 Lunch

15:00-16:30 Session XV (Room B-Ground Floor): Inter and Transdisciplinary Relationships in Architecture IV

Chair: Ana Neiva, Assistant Lecturer / Researcher, University of Porto, Portugal.

1. Marcello Santiago da Silva, Assistant Professor / PhD Student, Estácio de Sá University, Brazil. The Cinema as a Measure of Iconic Architecture.
2. Joao Miguel Couto Duarte, Assistant Professor / Research Fellow, Universidade Lusíada de Lisboa / CITAD, Portugal. Despite Resemblance – Scale Models and the Representation of Architectural Objects.
3. Xi Ye, PhD Candidate, Newcastle University, UK. The Pragmatic Role of Cultural-led Iconic Buildings in Promoting Social Engagement: Case Study of Sage Gateshead Music Centre, Newcastle upon Tyne, UK.
4. Wadha Almutawa, Student, Kansas State University, USA. Designing Retrofits for Efficient Daylighting Performance: The Case of The Docking State Office Building.

16:30-18:30 Session XVI (Room A-Ground Floor): *A Symposium on the Future Developments and Prospects of University and/or College Education in a Global World II*

Chair: Mary Ellis, Director, Human Resources Division, ATINER & Senior Lecturer, National Institute for Education, Nanyang Technological University, Singapore.

1. **Adele Moodly**, Deputy Dean, Faculty of Education and Associate Professor, University of Fort Hare, South Africa. The #Hashtagmovements in South African Higher Education Institutions: Implications for SA as a global player.
2. **Marija Liudvika Drazdauskiene**, Professor, Wszechnica Polska (Higher School in Warsaw), Poland. Guided Work in Language and Literature *versus* Projects and Papers of Students' Individual Choice.
3. **Irina Ustinova**, Professor, Southeast Missouri State University, USA. A Smooth Road to Online Learning?
4. **Ling Chen**, Professor, Hong Kong Baptist University, Hong Kong. Observations on social changes and challenges to college education in Hong Kong.
5. **Kwong Kapathy Luke**, Chair, School of Humanities, Nanyang Technological University, Singapore. Teaching and Research at Nanyang Technological University Singapore in a Global Context?
6. **Valia Spiliotopoulos**, Associate Professor of Professional Practice & Academic Director, Centre for English Language Learning, Teaching, and Research (CELLTR), Simon Fraser University, Canada. The Present and Future Impact of Immigration and Internationalization in Western Canada's Post-Secondary Educational Context: Addressing Issues of Linguistic Diversity, Student Support And Success, and Faculty Development.

For details on the discussion please click here.

18:30-20:00 Session XVII (Room B-Ground Floor): Special Issues

Chair: Vassilis Skianis, Research Fellow, ATINER.

1. Choomket Sawangjaroen, Assistant Professor, Thammasat University, Thailand & Wiruj Somsopon, Lecturer, Thammasat University, Thailand. Review of Thailand's Laws and Regulations about the Provision of Equipment and Facilities for PWDs and the Elderly in Architecture View.
2. Shahira Sharaf Eldin, Associate Professor, Delta University, Egypt & Luis E. Fraguada, IAAC, Spain. Adopting Parametric Modeling as an Efficient Conceptual Design Representation Tool.
3. Ceren Katipoglu, Assistant Professor, Cankaya University, Turkey. Search for the Ottoman Futuristic Visions; 19th Century Ottoman-Turkish Narrations.

21:00- 22:30 Dinner

Wednesday 5 July 2017
Educational Island Tour or Mycenae and Epidaurus Visit

Thursday 6 July 2017
Delphi Visit

Fatma Aliosman Culhaoglu
Researcher, TU Delft, The Netherlands

The Architecture of Dissensus:
Partition of the Sensible in Philosophy and Architecture

Dissent, in its historical notion, was a rather pejorative term used to express the state of a violent conflict and opposition to the authority of a prevailing system. Today, evolved as *dissensus* and widely theorized in political philosophy, the term is most commonly used to express the state of a *politics proper*; a powerfully charged space of political negotiation and debate. This study uses a range of philosophical conception of *dissensus* to highlight contemporary aspects of this state – its inevitability in a dynamic living system, its role as a force for the integration of change, its high levels of spatial engagement – and extends this understanding in the realm of architecture.

Beginning with the concept of *post-political consensus* of Slavoj Zizek, this paper discusses the notion of *dissensus* through Jacques Rancière's critical study on aesthetics and politics. These recent readings of *dissensus* reflect a rather relevant matter for the future architectural and urban design delineating spaces charged with intense social and spatial criticality; active spaces that can welcome located friction as an opportunity, while maintaining awareness of and resistance to its dangers. Therefore, based on a thorough literature review of *partition of the sensible*; spatial justice, rights and exclusion, the text highlights architectural concepts out the theoretical study in order to assert and characterize the space of dissensus.

Re-framing the notion of *dissensus* from an architectural perspective, the study investigates alternative and critical spatial production in which, social groups that were previously marginalized and rendered invisible are, in this case, rather active participants of processes transforming their lives, places and position in the city. This way, the study signifies and promotes a renewed understanding of the role architecture and spatial design play in democratic struggles and processes of socially just urban places.

Wadha Almutawa
Student, Kansas State University, USA

Designing Retrofits for Efficient Daylighting Performance: The Case of the Docking State Office Building

Electric lighting in buildings consumes 14% of total U.S. energy consumption [EIA 2008] and recent studies suggest offsetting electric lighting with daylighting could reduce total building energy use (electricity for both lighting and cooling) by 28% or more nationally [Williams, Atkinson, Garbesi, Rubinstein, 2012]. The proposed paper examines minimally invasive interior retrofits that can enable an existing building of historic significance to more fully utilize the energy savings and environmental benefits of daylighting, thus contributing to its potential preservation.

The Docking State Office Building was the first public building in Kansas to strive for the principles of the Modern Movement, with extensive use of glazed curtain wall system with open office plans in a 12 story building. This highly significant building is now largely vacant due to energy and comfort concerns, though a recent energy analysis [Gibson 2017] estimates 44% of electricity and 8% of total energy is associated with electric lighting.

The proposed paper measures and evaluates the effectiveness of several possible daylighting elements, using quantitative and qualitative analysis tools. Solutions focus on realistic evaluation using prevailing metrics for light control, diffusion, and reflectance while considering the potential impact on the appearance of the interior.

The Illuminating Engineering Society of North America Standards suggest that the appropriate illuminance level for a working environment in office buildings is between 300 lux and 30,000 lux. The hypothesis in this proposal claims that potential retrofits can approach the recommended range of illuminance using daylighting alone, largely reducing electric lighting during working hours. Retrofits in the existing building conditions will be designed, analyzed, and evaluated for daylighting performance using the simulation software Radiance and DIVA. A typical floor is being used in the analyses, that would be representative of the majority of office conditions in the buildings. Visits to the site to document and measure existing conditions in situ will support the study. This research attempts to investigate the potential of daylighting to renew the value of the building as a functional and efficient work of architecture, using contemporary

design knowledge and analysis tools.

References

Gibson, Michael. "Docking State Office Building: Revisiting the Energy
    Performance of the Modern Glass Tower." Proceedings of the 2017 ARCC
    Conference, Salt Lake City, UT, June 14-17 2017.
Williams, Alison, Barbara Atkinson, Karina Garbesi, and Francis Rubinstein.
    "Quantifying National Energy Savings Potential of Lighting Controls in
    Commercial Buildings." Environmental Energy Technologies Division
    Berkeley National Laboratory, Berkeley, CA, May 2012.

Jon Alvarez Fernandez
PhD Candidate, Waseda University, Japan

The Shift of Valuation and Management Model in Japanese Protected Townscapes, from a Tourism Point of View to a Local Community and Environment Point of View: Case Study of Uchiko Town Plan (1978-82), Kurayoshi Town (1998) and Ine Village (2004).

The Japanese government efforts towards the valuation and preservation of traditional townscapes since 1975 gave birth to the "denken chiku" (Japanese abbreviation for "Important Districts of Traditional Built Structures") program: Agency of Cultural Affairs established the valuation criteria for townscapes and a grants system to ensure their survival. In previous works, I described the connection between the changes in Japanese economy and the valuation criteria of Japan protected townscapes. This time, I will establish a chronology of the effects of these criteria on the management, through a case study from the early stages of the "denken chiku"plan to present time.

Before 1990, economic expansion led to economic changes which transformed space and population. Rural areas were depopulated, and their economic activities ruined. Tourism was a potential new economic source, specially in rural areas, thus it became a priority for townscape protection system criteria. Most of the designated townscapes were viable for tourism (thus, appealing for tourists) and easily accessible (urban or rural areas accesible by express train). But by 1990,when Japanese economic bubble burst, touristic model declined along with economy. This triggered a shift in townscape valuation: local needs and growth over appeal on tourism, local community as the main agent for preservation, and landscape as an opportunity to grow. As local communities were more easy to recognise in rural, small communities, most of the designated townscapes since 1990 were rural and hard to access. Management also changed: from public worker-centered management to local association-centered management.

The three exposed cases describe three realities in three different historical stages in Japanese architectural preservation. Stage 1 (1976-1989), which was developed along with the Japanese economic bubble, developed protection plans oriented to tourism activity as a solution for rural decline. The valuable elements to protect were those that made the protected town understandable and attractive to the tourists: external elements of buildings were prioritized over other spatial

configurations such as inside-outside relation or the configuration of local people's living space. Stage 2 (1990-2003) saw the failure of the tourism model, since massive tourism never compensated the decline of rural heritage sites. This was an opportunity for other towns, with little tourism interest but high historic value, to enter the "denken chiku" system. The socio spatial structures that made towns survive, such as old commerce routes and infrastructures, were valued, as well as the community's needs. The beginning of stage 3(2004-present) was caused by Landscape Law in 2004.These 3 stages reached different results that help us picture the current situation of Japan townscape heritage.

Rahmatollah Amirjani
PhD Student, University of Canberra, Australia

Social Housing: Three Tales

With the notion that there should be quotable commonalities in social housing projects, this paper will present an analogical examination of two distinct projects designed by Alvaro Siza and Kamran Diba, respectively. The emergence of the Shushtar New Town Housing Project in 1977, designed by Iranian architect Kamran Diba, raised a great hope among Iranian architects and authorities. The project not only offered a new alternative way that stood against the invasion of universal style and its consequences, but also presented itself as a flagship of Critical Regionalism in the Iranian contemporary housing history, discussed by Kenneth Frampton. While Diba's Shushtar social housing project was arrogantly harvesting worldwide architectural awards one after another, the signs of erosion gradually emerged in the project.

Today, just a few parts of the original design remains, the rest was demolished by its residents. This issue left architectural historians and critics with one major question: why should such an allegedly great pioneer project suddenly become one of the architectural disasters in the Iranian contemporary housing history? This paper will attempt to respond this question using Alvaro Siza's Malagueira social housing project in Evora, Portugal, also built in the same year as Diba's. As a single soul inhabiting two bodies, both Siza and Diba carried out their housing projects throughout almost the same strategies, ideas, and design concepts at a particular historical conjunction. Although there are incredible similarities between these two housing projects, a few number of Siza's slight elegant considerations, which Diba did not take into account, determined the eternity of the Malagueira housing and deterred this project from erosion.

Exploring the commonalities between these two distinct housing projects through analogical analysis, whilst utilizing the success of the Malagueira housing project as an exemplar case, this paper posits that the lack of understanding of users' requirement, community supervision and social sustainability design features, such as the space for future infrastructure and flexibility played an essential role in the failure of the Shushtar New Town.

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Projection Surface and Architectural Space

The transmitting, manipulating, and projecting of digital images is central to current life and culture. Images are re-presented on a multitude of devices, and projected in a verity of ways. Projection technologies has by no means exhausted itself, on the contrary, all indications imply that we will experience larger, better quality, and more varied manifestations in common use. As such, 'projection surfaces', can be, and are, understood as architectural material. 'Projection surface' have the unique property that what is seen on it is not its materiality but rather other forms and objects. 'Projections' are changing and dynamic, they show movements and transformation, actually, they can portray almost anything.

'Projection surfaces' are emerging as occupying a substantial share of the totality of architectural space, intermingling with other materials and forms. The realistic spatial conditions are combined with the projected visual possibilities of the imagined and speculated. This creates an extensive effect of fragmentation, superimposition, partial views, and discontinuity of space and consciousness. In addition to blurring the distinction between interior and exterior, a new possibility is added: the elsewhere and the other-time, together with the here and the now. This condition is interpreted not merely as a visual by-product, but rather as a reflection of current culture. The technology itself is not the subject of the paper but rather the transformative effect it has on architectural space. The paper analyzes and conceptualizes the implications and possibilities of contemporary architectural space as it becomes laden with projection surfaces.

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The Phenomenon of Being Distinguished in Architecture: A Study on Pritzker Prize

The origin of architecture can be discussed based on the need of shelter and/or noble desire and it is thought that independent of its period, aim, function or audience; architecture, as a profession has desired to reach that which is unique within its definitive context. The tendency of being distinguished justifies itself basically in representation of architecture and this representation is established through the practice of architectural institutions. Besides these, institutionalization of architecture has not produced any theoretical attempt which problematizes architecture as something being ordinary; this has always been extraneous in the practice of these institutions. The aim of this paper is to discuss the phenomenon of being distinguished in architecture through the gentrifying mechanisms of these institutions and to bring the problematic of being ordinary into question as a succeeding discussion.

The gentrifying institutions in architecture that establish its representation as a unique product, will be discussed firstly. To understand the underlying mechanism that generates this phenomenon of being distinguished, institutions which are architectural schools, periodicals, social media, and award systems, will be included in this study. Following this, architectural award systems and the Pritzker Prize, will be analyzed as case study.

As the method of this study, descriptive phrases defining architecture in Pritzker jury citations for laureates will be analyzed. These phrases will be evaluated based on their representation of honorary expressions of architecture. Towards defining these descriptions, those definitions which refer to architecture as a distinguished object will be discussed in terms of the way of phrasing them. Finally, the phenomenon of being distinguished will be discussed within the context of how it promotes the reproduction of the conventions of architectural knowledge.

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Towards a Definition of 'Place': Cross-Disciplinary Methodology for Interpolating Architectural and Sociological Data in Claremont Court, Edinburgh

This paper introduces our novel cross-disciplinary methodology developed under the research project 'Place and Belonging: what can we learn from Claremont Court Housing Scheme?'. This original methodology integrates research methods from architecture and sociology in order to investigate the relationship between place and sense of belonging to a community, using the case study of Claremont Court, a post-war housing scheme in Edinburgh. The research's theoretical framework defines 'place' as the physical space together with the spatial atmosphere, or phenomena that give meaning to it (Norberg-Schulz 1996, Gieryn 2000). Through individual and collective spatial practices, people attach meanings to a place that they can then claim belonging to (Benson & Jackson 2013). Thus, the meaning and (co-)production of place become critical in the presentation of the self (Cooper 2004), and in establishing belonging to a collective identity. Consequently, our methodology is underpinned by the theory of non-verbal communication, according to which people generate the meaning of a place through '*personalisation*' (Rapoport 1982:21) of their environment.

Drawing on these premises, we developed a qualitative research design which combines architectural research methods (laser-tape survey, photo-survey, contextual mapping and visual narratives); with research methods from the social sciences (biographical, walk-along and photo-elicitation interviews). Through visual (or non-verbal) methods, we study physical cues from which we infer inductively the meaning of place. Through interview (or verbal) methods we study verbal behaviour, which further uncovers the meaning of the place through thematic analysis. From the synthesis of both analyses we elicit the meaning of place for the dweller. The variety of research strategies, from architecture and the social sciences, that we have applied to the Claremont Court case-study, responds to the understanding of place as a physical and socio-cultural reality. Therefore, the research design is structured upon the idea of considering visual methods as cross-

disciplinary means, which are able to integrate the physical and socio-cultural aspects of the research problem, enabling the dialogue between different disciplinary areas.

The findings of this work are two-fold. First, as part of our original methodology, this paper introduces 'contextual mapping' as a novel research method for visualising and interpreting the data collected in relation to the lived spaces and their phenomena. 'Mapping' is here intended as suggested by Deleuze and Guattari (1980: 13) in opposition to the action of 'tracing': "*the map does not reproduce an unconscious closed in upon itself … it fosters connection between fields*". We assume here that architecture can be an interpretative tool for the situations of daily life: thus, it follows that drawing is "*a way of re-presenting those situations, […] of communicating a plot, of revealing a situation*" (Troiani et al., 2014: 6). Secondly, this paper questions commonly used methodologies to study environmental meaning that rely on linear models (such as those studying semiotics or symbols); we suggest instead that visual methodologies can support the synthesis of physical and socio-cultural data in a cyclic model that brings together research approaches coming from two different, yet interconnected, fields of knowledge such as architecture and the social sciences.

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Study on the Application of the Salingaros Scaling Coherence Rule to Quezon Hall of the University of the Philippines

We apply one of the Salingaros Scaling Coherence Rules, i.e. the small scale is connected to the large scale through a linked hierarchy of intermediate scales with scaling factor approximately equal to e = 2.718 to the main front facades of existing key Philippine buildings and see the effects on the facades of the buildings. Here we present only the study on the Quezon Hall of the University of the Philippines. The Quezon Hall is the administrative main office of the university. The original and the modified were subjected to a survey of senior Architecture students from different schools in Manila who rated them in terms of aesthetic preference and impression.

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Haptic, Habituated and HigherDwelling:
The MOMA exhibition "Endless Kiesler: Intersections of Art and Architecture."

This paper proposes that haptic, habitual and higher states of dwelling are explored in the artand architectural works presented inthe MOMA exhibition titled"Endless Kiesler: Intersections of Art and Architecture." This exhibition "considers the single family home and archetypes of dwelling as creative endeavours of architects and artist." It has been critised for a lack of curatorial coherency, but has been noted as examining universal themes of architecture. This paper is the first attempt at a fuller discussion of these themes. The comparison is carried out against a framework of theories by Walter Benjamin, James Gibson, Elizabeth Grosz, Henri Bergson, Gilles Deleuze and Felix Guattari, followed by an in-depth examination of work and theories by featured architect/artist Frederick Kiesler, and a comparative summary of all the works in the exhibition. Some of the most well-known architects in the exhibition include Mies van der Rohe, Frank Gehry, Peter Eisenman, Rem Koolhaas, Smiljan Radić and Asymptote; alongside artists such as Louise Bourgeois, Bruce Nauman, Mario Merz, and Rachel Whiteread. This approach viewsKiesler's theories as a benchmark against which the other works may be a continuation, or push against.The broad spectrum of examples in the exhibition outlinesa cohesive body of work to illustrate the significance of the re-occurring themes in the exhibition.

Comment [MA1]: Keynote?

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The Examination of the Relationship between 4-5 Year Olds' Toy Preferences and Play Skills

The purpose of this study is to examine the relationship between 4-5 years old children's toy preferences and game skills. The research sample consists of 4-5 age groups 455 children and the their parents from eight independent preschools in 2015-2016 education year in Istanbul's European side. Datas were collected by the personal information form developed by the researcher, Toy Preference Form (TPF) and Game Skills Assessment (Obdoem).

The findings obtained from research was transferred to the computer and it was analyzed using SPSS 20 software package. To resolve the sub-problems of the research independent samples t-test; One-way analysis of variance (ANOVA), Levene and Sheffe analysis were used. When the findings are examined, the children most preferred first 3 kinds of toys are seen that miniature objects, current heroes and moving toys. According to the age of the child and the parent results, 5-year-old children prefer to manipulative toys more than 4 years old children and also the children less prefer to musical toys whose parents are 41 - 50 years old.

According to the results in gender; there is a statistically significant difference between baby / plush / animals, miniature objects, manipulative toys, electronic toys, handmade toys, desktop toys, musical toys, models and violent toys preference and gender. It was determined to that girls prefer to play with baby/plush/animals, miniature objects and handicrafts more than boys and boys prefer to play with manipulative toys, electronic toys, desktop toys, musical toys, model toys and violent toys more than girls.

Another result according to gender, the children of male respondents prefer to musical toys more than the children of female respondents. The children of non-working parents more prefer to play with manipulative toys and models and otherwise the children of working parents more prefer to play with musical toys. In addition, the results show that preferences of baby/plush/animals toys, handmade toys and moving toys are significantly vary according to gaming skills. And also, the results do not shown statistically significant difference

between the number of siblings of children and toy preferences, game skills and gender, number of siblings, parents age, gender.

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A Transdisciplinary Touch in Architectural Reasoning

The city of the Anthropocene demands of Architecture scholarship a supplementary effort: research needs to cope with additional complications brought by the indecipherable conundrum immersed in the Anthropocene itself. Indeed, the multifaceted concept of place offers a typical representation of this difficulty. Place, as an environmental form with symbolic meaning, implies not only *functional* but also *existential* effects for humans, demonstrating the need to apply to transdisciplinary methodologies in its approach. Alas place is a concept so deeply charged with existential topics, that addressing mainly its physical nature as usually architects do results insufficient. Rather, it demands a stricter transdisciplinary view, paying utmost attention to its philosophical nature. Place provides a clear justification for the use of transdisciplinary methodologies in Architecture: the concept has definitely a *deictic* meaning, it alludes to a 'roundabout' of the social sciences contents, congregating factors from diverse disciplinary fields, from economy and administration to marketing and politics.

Somehow planners pioneered the idea: "Place is a critical component of human welfare for several reasons: (1) It provides a basis for human affiliation; (2) it is the setting for economic development and consumption; (3) it is the locus of political representation; and (4) it is the arena in which public policy acts on people" (Fainstein). In Anthropocene times, whereas economists brag about the 'Triumph of the city' (Glaeser) and urbanists worry with the end of the city (Choay), architects raise provocatively ironic narratives on 'what used to be the city' (Koolhaas et al). In fact the studies of our cities are receiving a worrying oblivion. Should we forget the traditional structural definition of a city? and pursue new urban design theoretical insights to accommodate the morphological mutations of the anthropogenic 'fragmented metropolis' (Shane)? Would it be advisable to plan for a structured network of 'urban places' (Castello)? Or ultimately muse on philosophers' reflections about the need for 'new Urbanism principles' (Ascher)? The paper elaborates on a question reaching outstanding relevance within the complex questionings posed by the contemporaneity of cities: 'what is place?'. This is a question gaining unresolved prominence in recent developments in the concept of place, since the concept involves transdisciplinary connotations. After all, what would be the ultimate object of planning? Would it not be the understanding

of a *place* in all its interdisciplinary complexity? A place seen in all its transdisciplinary inferences, i.e., an object *socially* constructed, impregnated with *political* expression, at a great variety of *physical* scales, demanding practical *financing* resources to develop its latent potential just as *places* do?

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The Effects of Interior Design Parameters on the Design Quality of Nurse Stations

This paper focuses on the significance of design quality in working areas of nurses in healthcare interiors.

Although, nurses are healthcare staff that are in close contact with patients and have busy schedule during their working hours, their satisfactions and perceptions are not considered thoroughly in healthcare interiors. Several reasons can be affecting this issue; but especially the lack of awareness and the lack of supply-demand are the most preliminary and significant problem in this study. Therefore, the study aims to expand awareness on the importance of design quality in nurse stations regarding the role of interior design parameters.

Understanding the role of design parameters affecting nurse perception in working areas are crucial parameters for positive evaluations on healthcare interiors. In this context; plan layout, color, material, furniture and lighting as interior design parameters were analyzed according to physical and psychological needs of nurses in this study. Methodology of the study includes face to face questionnaires, which were conducted with 36 nurses from selected four hospitals located in İzmir. Questionnaires consisted of six parts; which were called pre-questionaire, plan layout, color, material, furniture and lighting parts and the data were analyzed through SPSS software. In addition to the questionnaires, two nurses from each of the four hospitals were interviewed. The overall analysis were re-evaluated by literature review as well as the results from observations.

In conclusion, the physical and psychological needs of nurses in their working area were revealed and new suggestions related to plan layout, color, material, furniture and lighting were brought up.

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A Sustainable Impact of Retrofitting the Educational Buildings in Chiang Mai University, Thailand

Educational buildings were built for more than 15 years at Chiang Mai University. Their operation systems from previous decades consumed resources, including energy and maintenance cost. Retrofitting is part of the SMART university project. Four buildings are analysed to be a green building following the Thai Green Building Institute (TREEs) criteria for buildings under operation. The criteria cover eight issues: building management, eco-friendly site planning, water savings, energy management, construction materials and resources, Indoor Environment Quality (IEQ), environmental impact and green innovation. These buildings are a large building, sizing more than 10,000 sq.m. area and consuming more than 350,000 kWh/year. It costs 150,000,000 Baht (almost 4 million Euro) for the retrofitting project. An impact of this project is in four parts. First, the 25% reduction of electricity equivalent to 1,377,000 kWh/year or 2% of total University electricity consumption. Second, clean energy is also proposed to 20% of building consumption from the solar panel system. Third, the Carbon reduction is analysed to 919 metrics (650,000 tonnes) tonnes CO_2 equivalence. Finally, considering payback period, the 19 years are proposed from the energy consumption and budget.

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Ruins between Film and Architecture

The abandoned places, according to A. Vidler, play a primary role in narrative landscapes: they show a break in the time of the narration. In contemporary cities we can often identify incomplete forms and unresolved narratives, we can find different Ruins: archaeological ruins, unfinished, recent ruins, rubble. The past, for W. Benjamin, is made of "ruins upon ruins" and Ruin is a perpetual condition. In every epoch, time, wars, natural disasters have produced and continue to produce Ruins. According to different interpretations of Ruin, we can say that it is a condition characterized by an incomplete form; a form in progress, which continuously changes itself combining several pasts. A form that has hybrid and incoherent narrative abilities and brings together contrasts: between artifice and nature, beauty and horror, memory and metamorphosis.

The Ruin is also represented by the imaginary of film. The filmmakers have always thought about the concept of time and ruin, interpreting and returning it in a various way: as a key figure of the existential and painful life in the city; as a background of spiritual reflections on the city's memory and the human soul; as a representation of scenarios of (im) possible future cities in ruin.

Another point is to consider "the cinematic vision as a field of ruins". It means looking at the cinema from a technical point of view, that of the "architectural" composition of the visual "fragments". In fact, as R. Bocchi and J. Pallasmaa said in their texts, some design strategies try to act with techniques like: rewriting, addition, layering, overlapping, montage, collage, that are similar to the cinematographic techniques of the narration and of the post production. So it is possible to study some concepts and techniques that are "common" between cinema and architectural design for ruins, which can help in the creation of new strategies.

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Despite Resemblance – Scale Models and the Representation of Architectural Objects

The challenge of exploring 'Inter and Transdisciplinary Relationships in Architecture' might be embraced as a possibility to outward as much as to inward the comprehension of architecture and its design.

This paper aims to reconsider the relationship between scale models and architectural objects after Nelson Goodman's discussion about resemblance and representation in 'Languages of Art', thus allowing a new understanding of the role of architectural representation in architectural design.

In 'Languages of Art', the still common belief that representation profits from some sort of resemblance to its object is deemed untenable. It is strictly arbitrary the relation between one and the other. That is why – Goodman remarks – "almost anything may stand for almost anything else" (Goodman, 1976: 5).

Drawings and photography might confirm Goodman's statement since only a convention seems to allow the recognition of a three-dimensional object in a bi-dimensional one, but that is not the case with scale models. Due to its nature it remains comfortable to think about a scale model as having a natural resemblance to an architectural object, thus seeming its closest representation. Nevertheless Goodman's proposals must be considered. Also scale models must be scrutinized as strictly arbitrary representations, resting upon a system of conventions instead of a set of features shared with the architectural object it is meant to replace. And being confirmed its strictly arbitrariness, that is, being confirmed that is devoid of any natural relation with its subject, scale model's role in architectural design must also be scrutinized.

This paper will first discuss scale models' representational nature and, subsequently, how the radical difference it holds from the object thus represented matters to architectural design.

Scale models ought to be comprehended despite the resemblance deluded with the architecture they allow to envision.

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"Gecekondu" as an Alternative Housing Solution for the Low-Income Population in Turkey

The scattered progression of urbanization in Turkey brought many radical changes which also had affected the operation of the state and society. Uncontrolled migration towards greater cities have resulted with unstabilised demographic distribution and an immediate need for proper housing stock and these two factors paved the way for squatter settlements which are labeled as "*gecekondu*" in Turkish. Gecekondu houses were an alternative solution that was brought to the table by the low-income population. These houses were generally built on nighttime on an empty land as one small room with available materials and basic construction knowledge. In time, these gecekondu houses started to act as a midpoint between the city and the rural and to form neighbourhoods and continued to exist and expand and sustained their role as housing units for low-income population. Since 2004, Turkish state has been actively promoting urban renewal projects in gecekondu regions and it is expected to upgrade many gecekondu regions with social housing units in advance.

As an instant and fast solution for the need of dwelling, gecekondu houses have their own characteristics in terms of spatial configuration and sociocultural formation. This study will examine a selected gecekondu house in Ankara, the capital city of Turkey in terms of its spatial configuration and provide in-depth interview with its dwellers in order to shed light on the neighbourhood's sociocultural fabric. The study aims to underline the importance of analyzing the needs and demands of gecekondu dwellers for providing them better social housing solutions.

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Contemporary Chinese Architects and the Reference to Architectural Type: Courtyard based Case Studies

The paper identify architectural type as one of the specific features in Chinese contemporary architecture, and provides insight into the role and meaning of it through recently built case studies (Liantang Town Hall and Ten Courtyard Houses).

Initially, the authors provide a framework of contemporary Shanghainese architecture by identifying its key features as: re-generation and re-use of architectural heritage; compositions of volumes for spatial richness; architectural distribution and typological approaches; and envelopes and skins for sustainability, between high-tech and low-tech (Delsante, 2011). However, there is room for further investigation and for deeper understanding of the meaning and the current use of the idea of type in contemporary architectural design.

More specifically, Atelier Z+ designers work with explicit typological references, adhering to typologies that have endured a strong position in the history and culture of the place, as for example the Liangtang Town Hall. In this respect, historical typological references can contribute to create spaces for current needs and aspirations.

The Ten-courtyard houses project by Tong Ming is instead for single-family houses (villas) and works by demonstrating with clarity how to react against uniformity and trivialization of typologies and planning employed in recent residential neighbourhoods.

The findings show how contemporary Chinese architects mean and make use of the concept of type in architectural design. By reflecting on architectural type, Chinese architects oppose cultural resistance to trivialization and banalisation in urbanisation processes.

The paper builds on an extensive literature review on contemporary Chinese and Shanghainese architecture, as well as qualitative research through case studies.

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Adopting Parametric Modeling as an Efficient Conceptual Design Representation Tool

Architectural education in its relation with computational technologies is both becoming a part of having the potential of renovation with the knowledge of emerging technologies. Digital modeling and visualization of architectural buildings has become the benchmark in architecture design and is essential in architectural education in this framework, this paper, will be presenting a joint Spanish/Egyptian design research workshop carried out between Institute for Advanced Architecture of Catalonia (IAAC) and Egyptian Universities. The aim of the workshop was training Egyptian graduated architects for professional practice of parametric design by developing their capabilities in computational design process.

A multi-day workshop was conducted outside of formal university course settings. In this studio, topics of parametric design and parametric modeling were interrogated through design process. Parametric modeling software and Generative Components were introduced.

The architects were required to explore material properties in order to create 3 D responsive architectural shelter structures. In this design research studio held by students, the topics of parametric design and associative thinking are cross - examined to explore their effect on the practices of architectural design and education by adopting parametric modeling as a tool for design representation.

Results revealed that parametric design enhanced creativity within the trainees according to thorough evaluation. Also, it has improved their design process, bridged the gap between physical and digital model and enhanced their capabilities to modify and develop their architectural designs.

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Enhancing the Transdisciplinary Perception of Sustainability Concepts in Architectural Education

Despite the efforts to reduce the ecological footprint of the built environment in the last decades, the earth's ecosystem continues to deteriorate. The built environment is known to be responsible for almost 40% of the world energy consumption and greenhouse gas emissions. Due to a pertinent response regarding such levels of environmental detriment, the professions involved in the creation of the built environment (primarily architects and engineers) were incurred with the accountability to decrease both the consumption and emission patterns. Furthermore, scientific work was extensively focused on the means to ensure more environmentally responsive buildings via channeling the rapid development of material and construction technologies into the creation of a more sustainable built environment. The significance of ensuring sustainability in the built environment, thus became an imperative idea in architecture, construction and urbanism. Consequently, the endeavor to increase the environmental responsiveness of the built environment became strongly linked to the technological aspects of sustainability, either due to its marketed image as a technological fix, or due to the capacity to quantify the benefits provided by the environmental measures for sustainability. Hence, such technology-oriented quest to establish an environmentally responsive architecture might face the risk to overlook the accompanying and equally important aspects of sustainability, namely the social, cultural, ecological and the economic.

Nevertheless, to overcome the constant deterioration of the earth's ecosystem through the production of the built environment, it becomes fundamental that sustainability is perceived not only as a panaceaic approach rooted deep in technology, but also as a unique configuration of ecological, social, cultural, economic, and technological scopes. Achieving such an enhanced perception of sustainability concepts could only be possible through a transdisciplinary approach that embrace the fact that the term "sustainability" does not only refer to an omnipresent technique that simply facilitates necessary quantifications, but also refers to a capacity that enables an understanding of "sustainability" as a complex notion with plethora of approaches. Therefore, a transdisciplinary approach that integrates the environmental and the social aspects of sustainability into the

theoretical framework of space-making practice should be adopted starting from architectural education.

In this framework, this study aims to explore the extents regarding the perception of sustainability among architecture students through a questionnaire and to establish potential associations between the student responses and a conceptual/theoretical framework, which anticipates the means to further delineate the diverse concepts of sustainability within architectural education. The proposed framework aims to create, distinguish, and trace the links between the main concepts of sustainability and architecture, which together could facilitate a diversity of attributes, assumptions, limitations, and perspectives related to positioning sustainability considerations within architectural education. This study, therefore, undertakes the following steps of methodology, a) reviewing the relevant literature, b) mapping student questionnaire outcomes with respect to the literature review, c) drawing out conceptual/theoretical underlying discussions, d) decomposing and re-categorizing the concepts for a conceptual/theoretical framework, in order to form a holistic, yet flexible, transdisciplinary perception of sustainability concepts in architectural education.

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Current Challenges of Technology Based Learning in Academia: A Model to Support Learning

The rise in the prevalence and popularity of Online courses, raise the argument that the future of higher education may depend on blending the strengths of online education, and those of face-to-face education. This combination may allow a cost-effective manner of delivering high quality educational experiences while reaching large numbers of students, beyond cultural, socioeconomic and geographic boundaries.

Universities and colleges have to figure out how to adapt to the modern world using the online interface to improve educational system.

When we observe online courses advantages through the eyes of students, faculty and administrators we can point out that students appreciate the convenience, choice, and flexibility. Faculty value the standardized framework and flexibility. The ease of record keeping, reflecting, using the data for research and the lower need to commute to work. Administrators like the idea of automated, consistent assessment data sources and the reduced costs that it can bring to education institutions. However, as we know online courses are very challenging – we still struggle with big ideas and questions: how to maintain interest, how to benefit from the power of interpersonal interaction despite the medium's shortcomings and how to break through the boundaries of the classroom and provide meaningful learning experience – All these remain major challenges.

This presentation will share a model that the Department of Innovation and Technology in Education at Gordon College of Education has developed as an assessment tool: Tech-Teach-Learn (T.T.L), which will be used by faculty while planning and evaluating activities that involve the use of technology.

In order for learners to be more involved, and to show interest in the learning process, faculty can rely on the T.T.L model to strive for the highest level of the model – 'Creator'- faculty initiates and creates a complex digital task in which learners create original digital content. It is believed that designing tasks for online courses using T.T.L model will stimulate thinking, raise engagement and will allow building a community of sharing knowledge.

  to the implications and potential applications of the model will be

discussed in the context of building a worldwide community of learners.

Jose Angel Hidalgo Arellano

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Archiphany: Architecture as Manifestation. Four Visions of the Roman Pantheon

Archiphany: architecture and epiphany. The objective of the present article is to unravel the protagonists and the scenario of the revelation of knowledge that takes place during a building's long life. It stems from a double interest: the relationship between literature, painting and architecture and the discovery of something incommensurable in architecture.

Over the centuries, architectural theory has made a great effort in order to rationalise all aspects of this discipline. However, aspects of difficult quantification have been relegated in this path of rationalisation. Whereas immeasurable parameters are encountered in the daily experience of the architect, architectural theory has failed to systematically integrate this knowledge.

This is the driving force of this article. Deepen, by analogy with the other arts, the concept of manifestation, it discusses how the architectural work manifests itself, making use of its autonomy, becoming the one leading the architect during the whole existence of the work: from its genesis in the designing time until the experience of the completed work in the historical time.

In the present article, we choose the Roman Pantheon as an inexhaustible source of knowledge. Exploring four different visions (Giovanni da Sangallo, Antonio da Sangallo, Giovanni Paolo Panini and Hubert Robert: two from architecture, two from painting) we understand how an architectural work can enlighten the culture and can be enlightened but other creative arts beyond architecture.

Looking attentively to this building, a topography, an atlas of revelations of architectural manifestations arises, summarizing what Percy B. Shelley wrote in 1819 about the Pantheon: 'It is, as it were, the visible image of the universe'.

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Creation of "Genius loci" and Artistic Conception - Museum Design under the Co-Impact of Architectural Phenomenology and Traditional Taoism Thinking

The western phenomenology theory and the eastern traditional Taoism philosophy derived from different cultural background, but shared incredibly same views into architecture. The architectural phenomenology regards «genius loci» as the essence and objective of buildings, taking the environment-architecture-people as an integration into research. It concerns not only about the interaction of the architecture with the outside environment (mental, cultural, physical, etc.), but also cares for the perception of people inside. The Taoism philosophy explains the law of the external and internal world by «being what it is». It emphasizes on the creation of "artistic conception" which arouse emotional resonance as well as connection with the outside world.

Compared with other types of architecture, museum design has to acquire higher request in cultural identity since it is an important place for cultural inheritance and education. As mentioned above, this kind of identity means both the harmony of «genius loci» and «artistic conception».

This paper enters the research by analyzing the connection part of the architectural phenomenology theory and the Taoism philosophical views on architecture. It take two cases as unique examples of contemporary Chinese architectural practice, the Zhejiang Art Museum designed by Cheng Taining and the Long Art Museum (West Bund) designed by Liu Yichun, to discover their design and thinking on the creation of «genius loci» and «artistic conception», under this cross-cultural background.

Ozlem Kandemir

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Defining the Era of Architectural Design: The Digital Age

From the foundations of modernity, since different movements – like Archigram– the way we conceive, organize and interact with our environment argued, reorganized and reconsidered. The thoughts and works of different philosophers helps designers create and organize new ways of thinking.

The multiplicities of positions from which arise different provisional constructions, challenges architects to define new ways thinking and create. When the reality and events are not organized along continuous threads, they deconstructed, reorganized and repurposed in orderly succession. Additionally with help of advanced computing they digitally classified, processed and reflected with increasingly more fluid logic of connectivity; and this new connectivity manifested through our built environment to a more ephemeral and immaterial entity.

These changes brought by new (also affordable) digital tools embedded on buildings and urban spaces. The dematerialization of the physical world by digital technologies, forces us to question the materiality of the spaces and buildings around us. By manifesting digital tools -the ubiquitous computing on buildings and cities, their footprint, physicality and existence is transformed. Increasingly mobile work force and new types of consumerisms alters the networks, facilities and infrastructure. The orientation of ourselves in urban areas with digital infrastructure and transform our navigation. The digital facades that can collect, process and reflect data and information bring about new architectures, environment and culture.

Additionally the role and position of architects are being significantly redefined with digital design and production technologies. Architects have an opportunity to place themselves in a central-main role in the construction of buildings and perhaps even regain the absolute powers of the medieval master builders. Digital technologies are enabling a direct connection between what can be designed and what can be built, thus signifying the issue of information and digital representation of it.

All these changes and transformations are varied and multifaceted in complex socio-technological systems, but we can state that they are the products of the digital era.

This paper aims to discuss changing era of design, architecture and

urban space through advancements and evolutions achieved in digital technologies. It will be discussed that we are on the cusp of digital era by defining the attributes, the identifications and differentiations of new digital era from previous time and works on the context of architectural and urban practices.

Ceren Katipoglu
Assistant Professor, Cankaya University, Turkey

Search for the Ottoman Futuristic Visions; 19th Century Ottoman-Turkish Narrations

The aim of the proposed paper is to explore the architectural and urban characteristics of the Ottoman capital as depicted in the 19th century Ottoman utopian novels with the purpose of using the findings to offer a fresh approach to 19th century Ottoman historiography, which is currently limited to mere stylistic comparisons and arguments of imitation and cultural degeneration.

19th century is among the most controversial periods in both Ottoman architectural history and historiography. There is a strong tendency among Ottoman historians to describe and define the 19th century Ottoman Empire with the decline-dissolution and Westernization paradigms. A similar attitude can also be observed in the Ottoman architectural historiography for the 'distinct' architectural languages of the era. The existing literature displays an effort to explain the westernization paradigm by an over-simplistic approach of "adoption of science and technology of the West". Most of the analyses conducted on the objects of architectural production belonging to this era followed a limited stylistic approach and claimed observing "a mere repetition of western architectural styles". Until as recently as twenty years ago any other approach found itself unable to be mentioned in architectural history literature.

Another paradigm of the Ottoman architectural historiography has been the alleged lack of urban utopias in Ottoman world. Architectural History discusses urban utopias as an exclusive product of western cultures by basing the entire notion solely on Plato and Moore. Ottomans are represented as culturally isolated from this area, however, one of the socio-cultural discussions that gained popularity in Ottoman Empire during 19th century was the question of the "adoption of science and technology of the West". Such argument lead to the growth of a literary genre based on science at the end of 19th century when Ottoman intelligentsia was trying to figure out the potential advantages and disadvantages of importing the scientific and technological developments. It could be asserted that the political and social atmosphere of Ottoman Empire that gave rise to this literary genre was also quasi-scientific in its nature.

Feyza Kuyucu
Lecturer, Gaziantep University, Turkey
&
Yasemen Say Ozer
Associate Professor, Yildiz Technical University, Turkey

Assessment of Station Houses as an Example of First Modern Housing in Gaziantep

Railways had an important meaning for transportation especially in the last 18th century and the early 19th century. Undoubtedly they had a crucial role in the development of cities. The construction of station buildings and the other service buildings of them have been determinant on the formation of the new urban spaces and architectural buildings. Especially for Turkey they have became as a symbol for modern architecture by their architectural characteristics features.

Tradition of building lodging has became a considerable issue during the foundation years of the republic of Turkey. And the station houses can be considered as a part of this tradition. They formed a significant model for the next housing construction process.

This paper will be focus on station houses which are known as "bağ lojmanları" by local people in Gaziantep. Formation of housing after the 1950s in Gaziantep significantly differentiate from traditional culture. After this period "bağ lojmanları" exemplifies the initial plan layouts as an expression of changing lifestyle.

It is conducted to figure out the general spatial organizations of station houses and the impact of them on housing culture in Gaziantep. However a research will be done in this context is important in the terms of exposing continuity in housing culture. So it is aimed that this study will provide important datas for further modern housing studies in Gaziantep.

Carlos Lampreia Silva
Assistant Teacher, Universidade Lusíada de Lisboa, Portugal

Concept, Site and Material, a Contemporary Strategy in Art and Architecture

In the beginning of the 60's something changes in the art world suspending modernism and abstract expressionism. Donald Judd invented the concept of 'specific objects' (Judd 65), where artistic objects should be adapted to galleries, the 'white cube' space. Robert Morris, an artist with connections to dance, tested and wrote about it in his 'notes on sculpture' (Morris, 66), studying how perception works among platonic solids and materials.

Art starts to be contextual because they are against the idea of flat painting on canvas, an illusion, art should be three-dimensional as everything else.

Critics call this type of art minimalism, but none of those artists recognize the term.

In the second half of the 60's, some artists, inspired by the beat generation and new ecological ideas, extended their activities towards exterior and abstract spaces, and the American deserts became witnesses of experiments that had minimized minimalistic spatial expansion.

'Sculpture in an expanded field' (Krauss, 79) replaced 'white cube' abstract space for real wide space.

Walter de Maria launched the concept in 1960, in texts such 'art yard' and 'on the importance of natural disasters', but only after 66 Robert Smithson started his regular work with earthworks, followed by an exhibition of his and other artists experiences, and by his seminal text 'A sedimentation of the mind, earthprojects'.

Artists invite everybody to feel nature guided by their landmarks.

Minimalism and Landart expanded the concept of context, site and material trough the abstract space of the 'white cube' and natural space, but this expansion soon will be moved to urban ground.

At the end of the 60's, artists get conscious about some approaches they have made about human body and human behaviour in society, and following the ideas of Henry Flint (61), who made early approaches to concept art, dividing it in linguistic and mathematical approaches (structure art), they have started measuring and collecting evidences about that behaviour.

Artists have started to worry about ideas (concepts), defending that it should be art´s essence, decreasing and refusing objects. Joseph

Kosuth wrote in 69 that art should replace philosophy, after had transformed all is objects into concepts he starts to write in 'art & language', a group and also a magazine using words as art tools.

Duc Vien Le
PhD Student, Southeast University, China

Some Typical Problems in the Design of Private House in Vietnam from the Perspective of Tropical Passive Design

Houses are the most intimate, use the most time of a type of building, so houses design is an extremely important work. Especially in the tropics, high temperature environment on people's lives have a huge impact, is necessary to have a reasonable design so that the building can adapt better to the climate environment. However, research in some areas in Vietnam is not well done. At present, the user's thermal comfort is not well considered in most of the Vietnamese residential buildings design.

In order to understand the design of Private house in Vietnam. This study is aimed to answer most common problems: Unreasonable residential area planning: dense combination form led to poor lighting and ventilation conditions; unreasonable building exterior design: the common exterior of the building is a single layer or lack of shading measures of the wall or roof, under the influence of strong solar radiation, its surface is heated, a lot of heat into the room led to indoor temperature is too high; too closed building: common houses design is a combination of multiple separate rooms, with poor indoor ventilation, the accumulation of heat caused the room has been in a high temperature state.

The study proposes the following recommendations: including the use of loose type of the residential areas layout to enhance the building lighting and ventilation conditions; using double roof and double wall to reduce the heating; furthermore, increase the degree of open of the building for effective indoor ventilation. These approaches may support in creating a better living environment for the local people.

Nandar Linn
PhD Student, Kyoto University, Japan
&
Masashi Kawasaki
Professor, Kyoto University, Japan

Spatial Characteristics of Contemporary Detached Houses in Mandalay Region, Myanmar

This paper aims to discuss the spatial composition of common peoples' houses constructed after the year 2000. The research survey was carried out upon 129 detached family houses in 3 different research areas of Mandalay Region in central Myanmar.

Firstly, horizontal space composition of the research area is analyzed according to the arrangement of functional spaces for the day to day basic activities. The most common plan composition types are selected from each of the 3 research areas and analyzed from cultural, religious, socio-economic and climatic aspects. Secondly, vertical space compositions of those common house types are studied to know its cause and effects related to the everyday life of the dwellers.

Spatial composition and current living style of inside family houses are mainly discussed in this paper. This is part of the research study to find the feasible means to integrate the traditional characters into contemporary design of houses in central Myanmar.

Ke Liu

PhD, Southeast University, China

Architecture and Cancer: Enhancing the Appropriate Environment of Cancer Rehabilitation Centre in Suzhou

The cancer is an increasingly serious problem among the modern society, the group of cancer patients is growing rapidly. The quality of the rehabilitation environment influences the emotion of the people affected with cancer. Enhancing the environment could be regarded as the merit of the architecture for health. There are numbers of existing designs for Cancer Centres in the UK such as Maggie's Centres. Unfortunately, there is still a huge lack of cancer rehabilitation buildings in China with the serious cancer burden. The problem I am trying to solve in this paper is to enhance the appropriate environment of cancer rehabilitation to help people affected with cancer. My approaches of understanding the problem about cancer are to collect data and analysis the situation. With the interviews between the local cancer survivors and the public to get know what are the local patients' requirements and the normal people suggestion to solve the problem of cancer. According to the analysis result and by learning the precedents of Rehabilitation Centres in brief, organisation of functions and environment indoor and outdoor, I am thinking about the local specific situation to give a new design possible of building a rehabilitation centre, which serves the local people affected with cancer in Suzhou. The results obtained in this research include a cancer rehabilitation centre design in the site of Suzhou. The design of the rehabilitation centre environment is based on the local context and the wish of the people affected with cancer in Suzhou. The traditional dwellings of Suzhou is similar to countryside house in Asia. the number of people in Asia affected by cancer increases rapidly. The article tries to show a design possible to appropriate rehabilitation environment based on Asian traditional context.

Luis Manuel Lourenco Serro
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The Scenography Intervention in Romanticism Architecture in Portugal

When Kant in "Criticize Pure Reason," establishes númeno as limit of knowledge, opened a reaction through the most distinguished philosophers of the infinite: Fischte, Schilling, and Hegel. This consciousness of the infinite, and its analysis through the feeling of the sublime, was the basis of all European romanticism, as well as the artistic currents that flowed from it. Although the theme of the sublime has been treated since Longuino, it was Hegel, who in his "The Philosophy of Nature", through the analysis of space and time, that extended his concept, because nature as determination of the idea, necessarily falls in space and time.

So the artistic achievement of this epoch must be a figurative representation of the sublime and the integration of all arts in a whole with the purpose of awakening the feeling of infinity.

"Opera" thus becomes the total spectacle, where all the arts (poetry, music, painting, sculpture and architecture) should participate to evoke the events as determinations, and thus, remit them to the idea of where they came from, realizing an Intensive quantum in space, and an eternal present in time where everything happens and flows.

The concept of scenery is essentially an evocation in the ideal, of a certain phenomenon, and thus is removed from the negativity of space and time. So the scenographers of the great theaters had an important intervention in the architecture of their time that it becomes itself as a scenario.

Portugal followed the artistic movement of his time and the scenographers of the lyrical theater of "Sāo Carlos" intervened extensively in the most representative buildings of Portuguese Romanticism.

The analysis of this interventions based on the concept of the sublime, on the concept space and time and on the concept of scenario constitutes the theme of this article.

Ana Magalhaes
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Portugal

Modern Movement Migrations:
Architecture in Angola and Mozambique (1948-1975)

The migration and dissemination of architectural models, which may be recognized all along the History of Architecture, accelerated throughout the 20th century, particularly after the Second World War. If on the one hand the geopolitical map as then defined led to a new paradigm of globalization, on the other hand the doctrinal, and often dogmatic, consistency of the architectural thought and production right from the origins of the Modern Movement allowed for the construction of models that facilitated their spreading and acceptance. The concept of flow or exchange associated to the mobility of architects between regions and cultures or to the dissemination of ideas and works if one of the main features of the Modern Movement generally, and the International Style in particular.

It is also under the sign of the idea of flow and exchange that we may understand the architectural production in Angola and Mozambique, both former Portuguese colonies, during the period of the second post-war.

The diaspora of the Portuguese architects who, during the 50s and 60s, lived and worked in the Portuguese overseas territories was caused by personal factors with various origins – their birthplace, a family presence, political reasons or merely the ambition of new work prospects – and, in a way as well, fostered by the development policies for the colonies of the "Estado Novo". Upon the outcome of the 1st National Congress of Architecture held in 1948, these newly-trained architects set out to the overseas territories with a clear prospect of the possibility of applying the modern vocabulary in a less restrictive way.

This paper's intention is, on the one hand, to understand the mechanisms of dissemination of international architectural models and their acceptance in those African countries, and on the other hand, to analyse the processes of their interpretation in a more orthodox, hybrid or critical meaning. Within the framework of architectural production in Angola and Mozambique, regardless of the specific circumstances in these two territories, of the different periods of time corresponding to the development of the works or of the specific interpretation of each author, there is a remarkable absorption of the models conveyed by Le Corbusier's work and doctrine seasoned with the lexicon and plasticity

of Brazilian modern architecture. But, as maintained by Dennis Sharp, the dissemination of modern architecture was not monolithic and did not result in a mere cloning operation (Sharp, 2000). Africa meant for those architects who built there an ideal laboratory for experimenting the modern language, not only by adopting such formal vocabulary, but also by testing building and geography and tropical climate adaptation. At the same time, it is necessary to consider how such idea of modernity and progress was developed within the framework of a colonial society and led to an ideological paradox: how was the assertion of democracy that is present in the genesis of the Modern Movement reconciled with the colonial ideology?

Vladimir Mako

Professor, University of Belgrade, Serbia

Lorenz Stoer and the Metaphor of Creative Power in Architecture

The aim of this paper is to investigate the possible meaning of Lorenz Stoer's woodcuts from the second half of the 16th Century, as particular metaphor of universal aspects regarding creative power in architectural design of the Mannerist époque. There is an indication that Stoer used metaphoric language to present, in a pictorial way, important thoughts of his time concerning new aesthetic premises of contemporary architecture merging from the Renaissance legacy, interpreting the importance of the geometry as the link between natural laws and creativity. Stoer's pictorial reflection on philosophical aspects of aesthetic premises of new architecture of the time, can show the possible ways, how through a creative expression new artistic values in becoming can be exposed and advocated.

Goran Ivo Marinovic
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The Relational Architect Embedded in Dialogue with Low-income Households: Two Chilean Case Studies of Incremental Housing

This article uses Martin Buber's philosophy of the I and Thou for developing the theory of the relational architect. The relational architect represents the shift from the organizational way of designing incremental housing to stressing the importance of the individual perception of the house. It proposes a dialogue-based design process of incremental housing embedded in the coexistence between households and the architect. Incremental housing is a process of open-ended housing construction, which challenges current assumptions about the relationships between formal and informal, bottom-up and top-down housing development. This article argues for the prolonging of the responsibility of the architect in incremental housing by reviewing two Chilean case studies, while criticizing the conventional role of the architect as a key agent for the top-down approach in public housing programs. Thus, I use data from fieldwork conducted for seven months in the Santiago Metropolitan Area of Chile. Using qualitative methods such as observation, semi-structured interviews, and surveys this article focuses on the Elemental Lo Espejo incremental housing project and then compares it with the Las Higuera housing project. The latter is representative of the incremental houses delivered by the Chilean government. In comparing these two projects, the aim is to structure the working template for future incremental housing projects.

Marta Masdeu
PhD Student, University of Girona, Spain
&
Josep Fuses
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The Design Studio as a New Integrative and Experimental Learning Space: The Pedagogical Value of implementing BIM, Parametric Design and Digital Fabrication in Architectural Education

In the last decades, the continuous development of digital technologies and their use in studios of architecture have redefined how the buildings are conceived, designed and produced. At the same time, these digital technologies have fostered the emergence of innovative forms of architectural practice based on collaborative and interdisciplinary working methods. As a result, a new kind of professional is needed. Architects must acquire different skills and knowledge in order to act professionally in these new working environments. Architects have to be able to achieve an instrumental and social mastery of digital technologies; to collaborate in multidisciplinary teams which can be geographically distributed around the world; to integrate other disciplines in the design process; and to combine different skills related to the design, research and management of architectural projects.

However, despite these professional changes, the training of architects in schools of architecture continues to focus on traditional educational models that have grown more distant from the professional demands. Today, a Design Studio is a simplified model of a world in which the future architect will work, where some roles are adopted (architect, specialist and client) and real conditions (the brief, site, budget and construction techniques) are simulated. Nevertheless, this model of the Design Studio has certain limitations which directly affect the training of students as professionals. For instance: the design process focuses on the individual work of the architect as a privileged professional, learning is limited by the physical environment and digital technologies are only used as drawing tools.

In consequence, schools of architecture have to review their programmes to develop methods of learning that enable them to adapt to the current professional situation. Thus, the Design Studio needs a change in order to reformulate the way architects should learn. The use of different digital technologies –like BIM, parametric design and

digital fabrication- can help to update the Design Studio. Their implementation can transform the Design Studio into a new integrated and experimental learning space where different types of learners and institutions can participate in the design process, and, simultaneously, collaborate in the co-creation of architectural knowledge. Whereas the BIM technology can be used as a communication tool to interact with other disciplines in cooperative and cross-disciplinary learning environments, the parametric design and digital fabrication can help to create learning spaces that encourage the creative and research ability of students.

The paper will address how BIM, parametric design and digital fabrication can contribute to reformulate the Design Studio and to improve the training of architects. It will examine the potential that these tools have to transform the way in which architectural education deals with design issues and suggest opportunities to challenge the rules of traditional education. Some case studies will also be presented and some strategies for the future of the Design Studio will be laid out.

Patricia Matias
Researcher, Universidade de Lisboa, Portugal

New Housing Solutions for Older Adults – The Case of Portugal

According to national surveys and statistics Portugal is one of European countries with a higher percentage of older population. This progressive trend brings new challenges on housing suitability. In fact, the residential conditions for older adults and the capacity to adjust housing solutions to their special needs is a not a problem of public policies only.

As in many other countries, a large proportion of Portuguese older people wish to remain in their existing homes, despite fears that poor accessibility could render them a challenge to maintain or even a threat to health and wellbeing. In the last decades new housing typologies based on institutional models have been developed. Solutions as private condominiums, assisted living units or public retirement homes tried to update the old concept of nursing homes. In Portugal the legislation from Social Security for Assisted Living units has been following these new trends.

But despite the development of new assisted living models which are mainly suitable for older adults with some kind of health and dependence problems the concept of Active Ageing based on health, security and social participation demands new innovate typologies which support these features.

On the other hand, the concept of Ageing in Place highlights the psychosocial benefits of remaining in the same environment. Sector experts have suggested that it is general housing stock that will take the strain of the ageing population and that therefore more needs to be done to raise standards in accessibility and in provision of adaptations for independent living.

Portugal has to consider particular difficulties due to social and economic constrains affecting the elderly. Private investors and public institutions start to develop new housing solutions according to this reality. Architectural typologies based on the concept of "age-friendly environment" as *repúblicas* senior (similar to student dorms) and hybrid solutions (assisted living/apartments) as been the last trends for an effective improvement of quality of life of the elderly in their residential environment.

Cassia Bartsch Nagle
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Collective Housing in Brazil after the Economic Crisis: Analysis of Two Projects

The global economy was affected by the economic crisis that started in the USA in 2008. However, in contrast to many other countries that saw their construction sector paralyzed, in 2009 the Brazilian Federal Government launched the *Programa Minha Casa Minha Vida* - "My Home, My Life" [PMCMV], as a countercyclical economic policy. The aim of the program's first phase was to build one million homes with a budget of R$ 34 billion. The program is now in its third phase, subsequent to undergoing changes to its core rules, with additional resources to build more houses. Despite supporting the country's economy during the crisis, the PMCMV has been criticized for its urban and architectural quality - for example, the homogeneity of projects, mono-functionality, peripherization, low-quality of collective areas, segregation and lack of connectivity with the city. This paper seeks to analyze the results of the PMCMV and present its characteristics. Two projects are analyzed: an example of mass-production design, criticized due to its lack of quality and a project that resulted from a competition promoted by CODHAB, showing it is possible to achieve better quality within the framework of this program. This analysis reveals the importance of project control during the design process phase.

Ana Neiva
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Does "Curating Architecture" Mean "Building Architecture"?

While the traditional practice of the architectural exhibition is considered an esteemed expression of the field, the paper argues it is also a key determent to a contemporary curatorial activity in architecture. This article discusses the contributions of methodologies in contemporary art curatorship to the construction of a specific knowledge in architecture.

The framework for the architectural exhibition usually lies on the relationship between a concept of architecture as "container" and its objectification into "content," along with traditional juxtapositions to artistic practices such as the performing arts and spatial installations. However pertinent this framework might have been for the affirmation of the discipline's autonomy, it also limits the discussion to a superficial glance of the symptoms of the practice, instead of drawing from a wider and more complex debate on contemporary art.

An interdisciplinary approach is essential to open the debate. Studies on contemporary art curatorship over the last decades have developed a vast theoretical playground (clarification of concepts such as *curator*, *curating*, *curatorship*, *the curatorial*, *paracuratorial*, *group curating*, etc.) and structured the history of the discipline. This background is crucial for building a parallel discourse for architecture, where the curatorship role has been changing over time.

We will explore relevant architecture exhibitions, focusing on a central question: does "*curating architecture mean building architecture?,*" *as per* Hans Ulrich Obrist statement. By choosing paradigmatic examples where the architecture is, simultaneously, *content* and *container*, we can elude the questions related to exhibit architecture through representation or procedural elements. Concentrating on the examples that emphasize the object itself, in a closer approach to the art curatorial practice, we will enlighten the positions outside the architectural field. This will be crucial to unravelling communication and mediation constraints and will contribute to the expansion and progress of this particular field of architecture curatorship.

Riitta Niskanen
Researcher, Lahti City Museum, Finland

Adjusting Cultural Values of Built Heritage with Modern Living Conveniences – An Example from Lahti, Finland

Tapanila is a wooden house area in the city of Lahti, in Southern Finland. It was built during and after the so called Winter War (1940–1941) mainly for evacuees coming from areas of Eastern Finland that were lost to the Soviet Union. Four hundred thousand Finns had to leave their homes.

The Swedish state donated two thousand wooden standard houses to Finland for rebuilding. The houses were delivered to seventy five localities. Lahti town got 27 houses from the Swedish donation.

This was the first actual phase of building standardization in Finland. The war forced Finns to develop quick and cheap solutions for the enormous housing shortage. The architectural planning was made in Finland but the technical and structural drawings were made in Swedish house factories according to their standards.

The postwar years were also the first actual phase in the history of Finnish small town houses because Finland got urbanized quite late. Traditionally Finns had lived in the country in farm houses and cottages.

In the year 1993 Tapanila received a national value of cultural history. This was based on the memory of the enormous mission to house the evacuees and also on the architectural and environmental significance of Tapanila. The most important feature of the architecture is the strict unity of the buildings and the nature of standard housing.

After decades the houses and courtyards have changed quite a lot. Individual requirements can clearly be seen. A couple of houses have been torn down.

How to save the great values of history, unity, modesty, and simplicity in the press of modern conveniences and rights to personal solutions? To answer to these challenges there is a new city plan under work. The plan tries to put together the history and the present for instance by offering an updated version of the standard house.

Dymitr Nowak
PhD Student, Poznan University of Technology, Poland
&
Jakub Niewinski
PhD Student, The Maria Grzegorzewska University, Poland

The School as a Space for Learning and Living

The presentation aims to understand the essence of the school as a place that not only prepares for life, but which hosts a real life. School is not only a space of teaching and learning, but a place to live feelings, build relationships and strengthen relationships. From this perspective, it seems extremely crucial aspect of the arrangement of the space in which students and teachers live and spend most of their day. Common arrangement of the class by students and teachers with the support of parents and other actors of the local environment affects both the teaching process and shaping a democratic and civic attitude of young people, responsibility, strengthens the sense of agency and builds open and honest relationships between teachers, students, parents and others representatives of the whole school community.

In our speech we will show the great importance of school as a place - a chance to get young people involved in the operation. Thanks to common design of the space of the class, youth will develop of their the perspective of living in a democratic society and other important skills: presenting various views to a wider audience, listening to the opinions of others, discussing, and joint search for alternative solutions. Putting the young people is the best investment in building an open and civil society. We will show examples of programs that enable young people to create educational space. We will look at different metaphors to describe the school as a theater, temple square to play, barracks, factory, hospital. We'll show you what's behind the walls of the school and how school places are important for students, their parents and teachers. We will ask our students about the meaning of the color of the school and whether this educational space has sex/gender.

Michael Obrien

Professor, Texas A&M University, USA

From Nano to Clusters: Neighborhood Retail Centers and Population Health: The Renovation of American Suburbs

Unlike most European countries, the United States is suffering through an epidemic of obesity, type II diabetes, and hypertension among its adults and children. The Centers for Disease Control (CDC) estimates over 35% of adults in the U.S. have obesity[1], and 17% of children suffer from the condition[2], which the American Heart Association has classed as a disease. Simultaneously, retail markets have undergone a significant centralization, the small neighborhood green grocers and fish markets are gone in most all neighborhoods, replaced with big box grocery stores selling less and less fresh foods as their supply chains stretch farther and farther across the country and the world. In a study of 13,102 adults, Rundle and Neckerman have found that walkable access to stores selling healthy foods is associated with a lower prevalence of obesity.[3] Many other scientific studies have drawn similar conclusions, the combination of a auto-centric environment, and past generational models of centralized retail are slowly killing many Americans, and are a significant driver of societal health care costs.

Americans didn't used to be this way, even those not associated with an agrarian or heavy industrial lifestyle were not routinely obese. Something changed in postwar planning, and postwar retail thinking and the interaction between these two factors is causing a significant reduction in the quality of life of American citizens.

Yet, place an American citizen, in the early stages of the obesity in Paris, or Athens for a month, and their condition slowly begins to reverse. The National Institutes of Health recommend focusing on balancing energy taken in with energy exerted, eating healthier foods, and adopting a healthy lifestyle[4]. But the suburban life-pattern of house to car, car to market, car to work has made the adoption of these recommendations difficult for most Americans.

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[1] Centers for Disease Control, as viewed at https://www.cdc.gov/obesity/data/adult.html on 11/26/16

[2] Centers for Disease Control, as viewed at https://www.cdc.gov/obesity/data/childhood.html on 11/26/16

[3] Rundle, Andrew, et al. "Neighborhood food environment and walkability predict obesity in New York City." *Environmental health perspectives* 117.3 (2009): 442.

[4] National Institutes of Health, as viewed at https://www.nhlbi.nih.gov/health/health-topics/topics/obe/treatment on 11/26.

Before the widespread adoption of refrigeration, it was routine to walk to the store to get milk for the day, beer for the evening, fruits and vegetables for the day, and meat and fish for the evening meal. Most Americans lived near enough that they walked, purchased, walked home, and ate fresh food, not canned. It was considered normal for a subdivision plan to include local retail land uses, between the streetcar or bus stop and the residential district so it was convenient to get off the bus, stop for groceries, and walk home. Every day.

This paper will propose a renovation plan for a typical American small suburban town. The plan will include the historical propositions for neighborhood centers seen in progressive era subdivisions and new towns and will illustrate prototype scales of retail that use social media to effectively bring healthy foods within an achievable distance of most of the towns residents.

Cengiz Ozmen

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Theory and Application in the Teaching of Architectural Structures

Topics such as Statics, Strength, Behavior and Analysis, Reinforced Concrete and Steel Design are often an integral part of the curricula of architectural schools. The manner in which these topics are thaught however varies considerably from school to school. While some programs put the emphasis on the quantity of information that is conveyed to students and therefore prefer a heavily loaded theoretical narrative, others favor quality and keep the theoretical portion limited while engaging students in practical application projects.

This paper is about the teaching approach towards architectural structures in the curriculum of Çankaya University, Department of Architecture. The program favors the theory-application approach. The program contains three consecutive courses dedicated to this topic. The first course is a purely theoretical one covering the fundamentals of statics and strength. The second course builds upon this theoretical knowledge base but emphasizes application in virtual environment via the use of structural design software. The third course encompasses the application phase through scaled physical models and loading tests.

The paper includes a discussion of the educational advantages and disadvantages of this educational approach via the evaluation of student surveys and comparative studies with the curricula of other schools of architecture. The paper elaborates on the relationship of dedicated structure courses with the architectural design studios. The feasibility of including structure-emphasizing projects in the limited and already loaded time frame of design studios is also discussed in detail.

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The Energy Performance of Five Different Façades at Istanbul Climate from LCA Point of View

Nobody can ignore Turkey's geopolitical position with respect to energy development and transportation. Many opportunities exist for Turkey to be a leader in energy market development and trade within the Black Sea region. One of the most important sectors which can help Turkey to be a leader is optimizing energy consumption at the construction industry. Istanbul have temperate climate zone, because of being at 41°01′N latitude and 28°57′E longitude with high levels of rainfall, and being close to the Black sea and Marmara Sea. Many research considers the optimum design for the building façade at temperate climate according to the operating energy data without considering the building energy performance during life time. It is obvious that usage phase of the building consumes more energy than embodied energy, transportation and other gas emissions; but, denying the importance of other factors should not be true. This study considers 5 different facades with different shading devices, glazing percentage, insulation thickness and double or triple window types, and study uses four step methodology based on requirements prescribed by ISO 14040 (goal, scope definition, inventory modeling, impact assessment and interpretation of the results), and the data used for the impact assessment step is came from EPD data base. There are many factors like environmental factors, transportation, embodied energy and U-value which can change the results.

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Architecture: An Heirloom

For centuries man has been creating edifices to document his existence on earth. Globally we have inherited a humungous number of such heritage structures. In most cases the shelf lives of the buildings are nearing expiration. The immediate future for these buildings is breakdown, adaptive reuse or downfall. The ethical high road that is often taken is that architecture is greater than the sum of its parts, an entirety that cannot be understood or appreciated in fragments.

Can piecemeal existence be the future for a heritage building than an impending threat of complete obliteration? Can architecture exist as a series of fragmented components that can be extracted singularly and enjoyed as separate entities? Can architecture enjoy a prolonged shelf life through extracted forms?

In south of India, in the state of Tamilnadu, near the city of Madurai lies an area called Chettinad. Spreading over seventy villages it exhibits homes belonging to Nattukottai Chettiar community. Huge 18th century mansions testify the power and community strength through its architecture. Unfortunately these mansions now lie desolate in ghost towns after the mass migration of the community members from their ancestral villages. Some structures are being subjected to adaptive reuse while others will eventually go under the axe.

What has emerged as an interesting by-product is the presence of huge warehouses that are situated in prominent towns like Karaikudi and Kanadukathan that bring down these houses in a systematic format trying to salvage each and every component in its intact form. These are then sold as separate components to south East Asian countries and within India too.

This paper intends to examine if architecture can be extended beyond its shelf life through fragmenting its different components and considering each component to be an heirloom that can be taken forward to other communities, regions and purposes.

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Structural Consolidation of Aghios Konstantinos Church, Athens

This paper is based on the Masters Thesis work conducted by D.Ph. Pocobelli in Sapienza University of Rome in 2014. Although the Aghios Konstantinos Church is currently under restoration processes, this research took place before the restoration of the dome, now finalised.
Aghios Konstantinos Church was designed by architect Lysandros Kaftantzoglou at the end of the 19th century. It was being built for more than 20 years, and it was completed after its author's death. The main façade is characterised by three different levels: the ground floor, the mezzanine or gynaecium, and the dome. The inner space is organised into three naves and a transept; the intersection between the central nave and the transept is covered by the dome. The church has suffered severe damages caused mainly by two strong earthquakes that took place in the surroundings of Athens. The first earthquake occurred in 1981 in Alkyonides Islands, with a magnitude of 6,6 Richter. The second one happened in 1999 in Ano Liosia, with a magnitude of 5,5 Richter. These events provoked major structural damages, concentrated on the dome, the main piles and the arches supporting the vault. On top of that, major fractures were also caused by the weight of the dome itself, that has been built with greater dimensions and heavier materials than the ones originally calculated by Kaftantzoglou. The piles have deep horizontal fractures on their bases, and superficial diagonal fractures under the cornice. The arches supporting the vault have transversal fractures that become deeper in correspondence of the keystone. Finally, the dome reveals a continuous horizontal fracture on the tambour, and vertical cracks that run from the architraves upwards. The interventions proposed in this paper are a Fiber Reinforced Polymer (FRP) hooping for the dome and stainless steel chaining bars for the arches.

Boguslaw Podhalanski
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Is the Pythagorean Concept of the Structure of a City Valid in an Age of Globalisation?

Geometrically speaking, the shortest distance that connects two points within a space is a straight line. Cities built on the geometric model based on an orthogonal grid of streets have been proven successful throughout the entire history of urbanism. However, considering the increasingly dynamic territorial growth of current metropolises, the sum of the distances along cross-crossing diagonals, taking into account the necessity of stopping numerous times at countless intersections, makes such a transport grid ineffective in terms of time and cost. The imposition of straight lines that connect the farthest points of interest located within an urban space on the orthogonal grid that forces ambulatio-type circulation, makes it possible to use sectio-type circulation - which is fast, but at the same time introduces triangular plots which are undesireable for construction.

The complicated, organic shapes of the transport network in spontaneously developing cities do not provide an appropriate effectiveness of the transport system. The elimination of vehicular traffic from city centres will cause a loss of accessibility and generate increased traffic in their vicinity. The search for intermediate solutions leads to the obvious conclusion that the only solution is the vertical segregation of traffic and relocating mass transport above and below ground. In such a situation, the idea of the geometric model of a city, based on an orthogonal grid, does seem timeless.

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Kleinwohnung vs *Existenzminimum*: Social Housing Types from Inter-War Years

The interwar period was of particular importance for social housing in Europe because it was characterized by an intense architectural and programmatic debate, concerning the shape of the city and the production of affordable housing. Of the European experiences *Das rote Wien* (Vienna, 1919-1934) and *Das neue Frankfurt* (Frankfurt am Main, 1925-1933) developed the most convincing typological solutions in answer to issues raised by housing problems in the nineteenth century. In this perspective, the Viennese *Kleinwohnung* (small flat) and the Frankfurt *Existenzminimum* (subsistence dwelling) correspond to two alternative but complementary social housing types.

This paper compares and observes in a critical way these opposite architectural types considering the following criteria: dimensions, distribution, spatial composition, and construction. Despite their different features, both are the result of a modern and rational approach for designing the affordable housing to promote a new *Wohnkultur* (culture of living). The main point is the issue of comfort: for example, the insertion of the entrance hall, the equipped kitchen, the toilets, and an efficient organization of rooms constitute an improvement of the hygienic conditions, but also the achievement of a democratization program to eliminate the distinction between social classes according to the characteristics and the technical equipment of dwelling.

The analysis is realized on the basis of original archival documents and through the re-drawings of the houses plans using the highest graphic homogeneity. The objective of this study is the critical comparison of dwelling cases from an architectural point of view. Architectural historians and critics have often neglected or observed in an ideological way these examples. Today, the observation of the typological solutions means a new approach for a better comprehension and a larger vision on the different 1920s social housing experiences.

Pedro Belo Ravara
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The Consolidation of a Practice

The question raised in the title of this abstract, THE CONSOLIDATION OF A PRACTICE, refers directly to the issue of whether the survival of a professional practice whose common trait has been extended to all other is able to redeem and preserve these others practices. Despite all the contextual and cultural changes and idiosyncrasies which may differentiate the distinct practices and their ensuing outcomes, modern architectural practice can basically be described as lying at the cultural and contextual root rather than providing a direct response to procedures and routines.

Furthermore, the overall practice of modern architecture is bound by a constructive, representative ethic that slowly undergoes change without ever involving moments of clear-cut breakages. Or rather, the practice is consolidated over time; transforming and adapting itself in the same way that time changes the shape of things along a rationale of selective production.

Throughout the present paper, we intend to describe the difference that comes to light in architectural practice whereby this difference has basically become the very object of the practice - the project -, which is radically distinct in its form and meanings on either side of the Atlantic. Indeed, the question of the finished object, complete and, for this reason, conclusive in what it stands for, not only from the point of view of its building but also in what it means, counterpoises another, more open, inconclusive object. With respect to this latter object, the building comes second to the project's economy and its meaning which is summed up in its specific nature.

Reinforced concrete technology has acted as a background setting to this paper, guiding our choice of projects that may be compared with each other, as well as our selection of the buildings and authors. Nevertheless, the conclusions we have reached have gone beyond the boundaries imposed by the material and the technology, and have demanded that comparative studies be made of other technologies, and because of this, other buildings.

In the same way that the industrial project has limited us and steered our writing here, other functions have and did come up when following up the project; they are likewise important in the subsequent practice of the modern architect.

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The Cinema as a Measure of Iconic Architecture

The main goal of this paper is to establish the connection points between the iconic architecture and the commercial cinema since the fall of the Berlin Wall. This period has been strongly characterized by the economic neoliberalism and the increase of symbolic buildings inside this trade scenario. The fever of "entirely newness" constantly appears in the period, and is an usual request from the desirous customers of an architecture that represents their institution or the place where it is going to be located. Moreover, the fusion between culture and architecture seems to ensure this symbolic condition, adding and creating a kind of design that would represent a new global culture.

The social, economic and architectonics aspects of these conditions have already been studied by several authors, like Jameson, Jencks, Moix and Koolhaas, that shows their insights and their data about the relations between market, society and architecture. This work intends to focus in another point of view. Indeed, the main aspect of this paper is less about the discussion of Iconic Architecture or its architects, and more the perception of what kind of building is iconic to the people, and its properties. In this picture, the cinema will be used as a research tool, comparing the sequences where these sorts of buildings appear in commercial movies in the period.

The specific contribution of this work will be structure from two other different researches that are in progress: The first talks about the formal relations between iconic buildings and IT is being done in Porto School of Architecture, in Porto, Portugal, and the second one is in course in Faculty of Architecture of Estácio de Sá University, in Rio de Janeiro, Brazil, and talks about representations of architecture in the movies, in the same period of study.

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Changing Urban Pattern of Eminönü: Reproduction of Urban Space via Current Images and Function

Considering the mixture of civilizations, as one of the places of Istanbul, Eminonu, has many different urban patterns related to its historical background. The Eminonu representing local Istanbul has always been a center for trade, production and trade of traditional handcrafts throughout the history. However, the radical changes Istanbul faces between the 19th and 20th century, have caused a transformation of its local context. By the 19th century, accepted as a period of modernisation of Istanbul, Eminonu's main commercial areas have turned into modern office blocks, although sometimes seemingly conventional facades still front old-style courtyards. After planning arrangements in the republican era, Henry Prost's plan directs to urban pattern, designing a new public square in Eminönü by the demolition of parasite buildings on the northern side of the mosque known as Yeni Camii. Considering rapid urbanization period of 20th century, Eminonu has kept its urban pattern in spite of its changing contents until today. So, it has become one of the rarest areas in Istanbul that still resists through time despite its daily-use. Therefore, focusing on the most participated areas of Eminonu, this paper aims to reveal the changing fiction considering its persistent urban pattern by daily participation.

The case study consists of Eminönü Square and its connected areas such as harbour, commercial areas, passing areas and other functions. In the process of this study, the old maps of Istanbul-Eminonu will be examined through time as well as the observation will be held in order to examine the current image of the place. The main purpose of the research is to remark the relationships and contradictions between historical urban pattern and current image of the city. In this respect, Eminönü has been evaluated with its changing urban pattern due to new user experiences and current images of the place.

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Review of Thailand's Laws and Regulations about the Provision of Equipment and Facilities for PWDs and the Elderly in Architecture View

Nowadays Thailand has many laws and regulations about the provision of equipment and facilities for PWDs and the elderly. In Thailand have more than 5 Acts and 5 ministerial regulations. Establish since 1991 as yet. From our 6 researches related to the building and place design for PWDs and The elderly. In the section of literature review of there. We do the documentary and content analysis. Such as the development, background, and the implement to building and design. We founded some critical issue that affected to implement of the design. The most of the law and regulation have 2 directions related to that. 1. Right and social welfare. 2. Standard of place and equipment. However most of them never define the penalty that affected to the building and place cannot access foe PWDs and the elderly. These articles have 3 the suggestions 1. The laws and regulations have enough detail however the government and related organization should active to regulate. 2. The designer should realize on the right to access to the building and place. 3. The PWDS and the elderly should have and active feedback to the government and social.

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The Wealth of a House Lives in its Empty Space. Vacuum Appropriation Strategies between Patio and Pavilion

The vacuum-space is a space component that associated to the full-space defines its formal configuration.

The appropriation of the vacuum is an architectural design strategy which aims to enclose a formless void portion. That vacuum finds its most immediate representation in the nature and, placed in relation to the full, reach a balance in the final built system.

Weaving the full-space with the empty one, suggesting a close relationship between interior-exterior, it is possible to get a flexible spatial mesh susceptible to modification, according to the needs that may arise in time by users as from the designer intentions.

Vacuum it is not space. Space may be empty. The vacuum exists without us, space doesn't.

Man-architect in designing the enclosed space cuts/encapsulates/hugs a portion of vacuum, indistinct and formless, understood as Nature. A fragment of Paradise that everyone has right to possess. Idea that binds to the image of the cave and tree, fence and hut, and in particular to patio and pavilion.

The two figures as archetypes are taken as the main reference points of different poles that seem to be conflicting and irreconcilable ideas, but that instead are building together the complexity of architecture. Full/empty, outside/inside, empty space/full-space, stereotomic/tectonic, vertical/horizontal, centrifugal/centripetal, works together to build space.

As an example we analyze, using this theoretical and practical approach, two "classic" works of modern architecture such as the Pavilion in Barcelona by Mies -a patio with inside a pavilion- and Ville Savoye by Le Corbusier, a pavilion with a patio inside.

The Pompeian house, physically known by LC in his travels and by Mies through its relationship with the classicism, constitute a common point from which branches off the architecture of the Swiss master as the German one. Branches that continually intersect between them, as the two figures of the patio and pavilion, revealing unexpected and hybrid synthesis.

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Houses and Facilities Improvement Guideline by using Community Technology for Dependent Elderly or People with Disabilities in Thailand

The elderly in Thailand has longer predictable ages and retired lifetimes but the ability of physical body are decelerating. These are the cause of their life limitation and make them to be dependent or disabilities. This research objective aims to present houses and facilities improvement guideline that emphasize on the community technology in Thailand. The methodology in this research was case study analysis of the best practice of the environmental improvement for dependent elderly or people with disabilities (PWDs) by using community technology in Thailand, 2016. The researcher assorted the 8 projects of houses or house structures which were actual and practical. All projects were criticized by 14 experts and knowledge management process. The results indicated that houses and facilities improvement guideline by using community technology for dependent elderly or PWDs should be based on standards, applied to work effectively in different situation and social context and made by local technicians with participatory in design process and integration of multidisciplinary. According to the guideline can be led to the safety, cost effectiveness and low maintenance.

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Manipulated Traces:
Architectural Post-Productions' Contemporary Techniques

Interventions on existing buildings are increasing every day. The actions do not only affect buildings to be preserved for their history or importance, but even "Tiers-Paysage": abandoned and marginal residual places and buildings become, also for the poverty of available means, objects of interest. The object of intervention once abandoned the spirit of conservation inspite all of re-use and the sacredness of the existing built – becomes manipulable, overwritable, i.e. the scrap as fictional activator. Is it possible today to define an architectural language of modification? Nicolas Bourriaud, in his Postproduction affirms that from the beginning of the Eighties, artworks are created starting from pre-existing ones: he defines this tendency as Post-production, that is the artist's action to create manipulation "processes" on materials that already exist. The use of this term is borrowed directly from the audiovisual technical language used in the filmaking sector, to specify the last part of a movie production, that takes place when filming is over and that involves the video editing. The aim of the research is linking cinema and architecture. Through the vision we cover a narrative sequence that can be composed by a sequence of moving images for a static viewer in a first case, or by a sequence of images processed in the mind of a dynamic viewer in the second case. If the perception and creation of architecture would take place as a mounting of scenes or of frames, what would the editing types or modalities be? Chroma-key, jump cut, fast cutting, graphical mach, mach on action, fades, mounting trick, metamorphosis, cross-cutting, freeze frame, trunk shot, etc. New invention techniques are investigated through an analogical comparative process, made on a projects selection in the built environment, by transposing movie mounting's terminology and definitions within the architectural design discipline.

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Digital Fabrication Laboratories: Collaborative Learning Models between Architectural Academic and Practice in Thailand

With the recent advancement of computer aided design and manufacturing technologies, Digital Fabrication Laboratory becomes a key factor to accelerate the transformation for learning processes of architectural design practice. However, many Architecture schools face difficulty in setting up the facility, and many struggle to survive. This study examines how digital fabrication laboratories have been adopted in five universities in Thailand, and how they evolve their Digital Fabrication Laboratory's models to sustain the facility. By analysing the repeating patterns and barriers to the implementation of digital fabrication laboratory, the results illustrate the relationship among five key factors: (1) ecosystem, (2) Technical, (3) Operation, (4) Curriculum, and (5) Financial factor. The new collaboration models between practice and academic that have emerged in response to the needs and constraints in Thailand are also discussed.

Susana Tavares dos Santos
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The First Decades of the Cinema and the New Society: Influences on Architecture

The 19th century, when it ended, bequeathed two new machines to the world. They were both born on almost the same date and in almost the same place, before being simultaneously launched on the world, covering the continents. Whereas the aeroplane escaped the world of objects, the cinematograph was meant to reflect for the purpose of examining it better. (Morin, 1997, p.23-24)

The late 19th century, and the 20th century loomed large – the beginning of a new modernity. Inventions were emerging constantly and characterizing this new era. Cinema functioned as a detonator for a latent modernity that was to characterize a whole new era. One must include the evolution of the city itself in this social relationship.

The transition from the 19th to the 20th century took place against a background of increasing industrialization. Cities were growing in unpredictable ways and at great speeds, with new developments and new technologies emerging ever more rapidly. The city was transforming, changing almost in real time before the eyes of those who lived in it, and there was no way of halting that progress.

The desire to capture movement and speed was one that was common to all forms of artistic expression in the early 20th century. The arts world in general witnessed the emergence of currents focusing on the never-ending possibilities provided by the potential for the use of movement – or the decomposition of movement – as a driver of artistic thought.

By the late 1910 Europe was experiencing the discovery of cinema to the full, and, in addition to the French film-makers, German, English and Russian directors were working with great enthusiasm. The major impact that European cinema had at the beginning of its development left a considerable mark on all the artistic output of the period, including architecture.

Reference:

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The Concept of Energy Conservation in Architectural Design and The Creation of Modern Thai Architectural Identity

The concept of energy conservation is not only a part of green architectural design but also an important element of a creation of Thai architectural Identity. Objectives of this research aim to: 1) reviewing and collecting theories and concepts of energy conservation in architectural design from academic papers; 2) interviewing professional and academic architects; 3) examining the perception of energy conservation from selected samplings: architects and general publics; 4) conducting surveys of architecture in various region in Thailand, that are prominent and relevant to this concept. The results of this research, "The concept of energy conservation in architectural design under Thai context", consisting of five fundamental principles are as follows: 1) passive design such as building ventilation and natural lighting; 2) active design such as building climate control and optimization of electrical equipments; 3) usage of green area in Thai architecture such as tree plantations inside or around the building, vertical garden, roof garden, reducing or replacing impervious surface by plants; 4) design follows function and utilization by grouping functional area or zoning from natural zone, passive zone, semi-passive zone and control zone in building; and 5) design follows construction process such as reducing quantity of material use and construction wastes and introducing the use of low environmental impact materials. According to the result of this research, professional and academic architects mainly focus on two principles: passive design and design follows function, while only a few numbers could use all five principles integratively. Furthermore, interviewed samples perceived that "semi outdoor/indoor space" or "grey area" is a climatic responsive design that plays an important role in Thai architectural identity. In conclusion, an analysis of several case studies shows that passive design, usage of green area, and design follows construction process are major design principles of Thai Architecture that transform and develop the concept of Thai architecture.

Devakumar Thenchery
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Scrutinizing the Role of Cultural Spaces as a Common Factor in Tangible and the Intangible Cultural Heritage

The intangible cultural heritage has been a well discussed subject and getting more consideration for last some decades mainly because of the approaches and definition by UNESCO. Though the word 'cultural spaces' is mentioned in the definition, importance of relationship between intangible and tangible aspects needs to be explored more. The associated cultural space can be interpreted as the common factor in both tangible and intangible cultural heritage, thus creating a triangle.

Kalamezhuth Paatt is taken as the case example, which is the unique art form of Kerala, one of the states of India. It happens in temples, sacred groves and even in houses of some cast groups. This art form is a combination of oral tradition, performing arts and powder drawing and consists of a series of rituals. Some rituals are performed in built spaces, while some are performed outside. Architecture of *Paattupura,* the building typology meant exclusively for conducting this ritual is amazing and is a good example of traditional architecture of the region. It is observed that a pattern of these cultural spaces including the built heritage and the open spaces is repeating as a module. To explore this phenomenon, this ritual art is studied using the above-mentioned triangle. This paper aims to look at the ritual architecture of *Kalamezhuth Paatt* and tries to get answer for the different questions regarding the origin of the ritual, evolution of the cultural spaces and its inter relationship etc. An attempt is also made to assess the dramatic transformation of the spaces during the ritual and the long-term transformation that had happened over years. The paper ends with recommendations to protect the ritual architecture and cultural spaces, hence the art form.

Duygu Turgut
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Talas Houses an Analysis of Plan Typology

Kayseri had always been an important administrative center throughout its history. After Istanbul's conquest it kept its importance as a Central Anatolian city. Furthermore, it is also known as Architect Sinan's hometown. Talas, which is a town of Kayseri, is situated at the slopes of Ali Mountain which is at the northeast of Erciyes Mountain, about ten kilometres from the city centre. Talas is an important town with regard to history of architecture including traditional vernacular texture occupied by Turkish, Armenian, Greek population in late Ottoman period. Harman District which is chosen as a case study, acts as a core within the housing texture of Talas. Plan formations of traditional Talas houses present information on related periods and local characteristic styles. Within the scope of this study, the local features of these houses, plan elements and plan types are going to be analyzed under basic titles. As a result of this analysis, a typological chart of plans of the houses is going to be prepared. In a culturally rich settlement of Anatolia located at crossroads of civilizations in Talas, nowadays the existing historical texture is gradually disappearing. The documentation of the vernacular architecture of Talas will have an impact on the conservation of the historical texture of the settlement as well as transferring the data to the future generations. Furthermore, this data could be a guide for the restoration in the area for site management projects prepared by the local municipality.

Julian Wekel
Director, Institute of Urban Planning and Housing, Germany

New Aspects of German and European Planning Culture

The new and complex challenges of urban development like climate change, consequences of globalisation, demografic perspectives and migration, cultures of governance are having multiple influences in goals, leading ideas and procedures of urban planning and design.

The lecture will point out the changes of understanding about planning and architectural tasks in 12 central fields of thinking and operating like the importance of integrated planning including other disciplines as well as different levels of planning, new relations between formal and informal planning instruments, the influence of icon buildings, cultural heritage and „Baukultur" in regional developments, new understanding of urban mobility, new strategies of energy safing urban structures.

The lecture will finally express the need and the conditions of a new selfunderstanding oft he role of architects and planners in the modern European societies

Jianqiang Yang
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Study on Characteristics and Value of Nanjing Historic City Form

Nanjing, along with Beijing, Xi'an, and Luoyang cities, is one of the four prestigious ancient capitals of China. It is a classic example of a capital with an irregular city plan, which built in accordance with the situation of natural mountains. Nanjing is a city of historic and cultural prestige with over 2,500 years of city establishment history and over 460 years of capital building history, which lend it a rich cultural heritage and unique cultural sights. This paper firstly probes into the natural characteristics of Nanjing historic city form, consisting of geographical units, including low mountains and rolling hills, river valleys and plains, lakeside plains, and riparian lands. Secondly, it analyzes the layout and form of Nanjing, and studies the reasons why the layout of this ancient capital follows its natural form and makes use of its natural features. Then it studies major feature of the spatial arrangement of old Nanjing city, and concludes that the old Nanjing city has a broad plan and a complex topography. Although the architecture of the city is irregular, meandering, and highly diverse, the overall layout still possesses structural integrity and a strong sense of unity, demonstrating both power and supple beauty. This paper puts forth that the mountains, rivers and their morphology are seamlessly integrated into the city, creating a harmony that renders the old Nanjing city a unique spatial charm. Base on above, this paper finally discusses the problems of the protection of historic city Nanjing in the future.

Xi Ye
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The Pragmatic Role of Cultural-led Iconic Buildings in Promoting Social Engagement: Case Study of Sage Gateshead Music Centre, Newcastle upon Tyne, UK

Creating cultural-led iconic buildings has become a model that political and economic institutions seek to present a cultural narration of a transformation of local economics associated with urban regenerations. Symbolic appearance has been laid much emphasis on iconic buildings, as it tends to attract visual consumers rather than actual users. However, the question is after an iconic building have attracted people, how it will function well next. Thus, to a cultural-led iconic building, there should be a pragmatic role in developing social life other than a symbolic role only. Therefore, taking Sage Gateshead Music Centre as an example, this article intends to explore the pragmatic role of cultural-led iconic buildings in promoting social engagement – first, how the idea of social engagement takes part in the way of searching for the design concept, and second, how the building actually functions to improve social engagement in everyday life.

Sage Gateshead Music Centre is a key project in the regeneration of Newcastle-Gateshead quayside in the Northeast England. The symbolic form of the building is not the only issue that the architect took into account, the idea of social engagement was also taken into the way of finding the design concept, as it is conceptually proposed to create an "Urban Living Room", and this concept was technically inscribed in spatial forms. The actual experience in the building is in some way echoing the design concept. Diverse events and programmes happen in the building and welcome people of every age and ability to be participated, enabling a wide range of social mix in the single building. The building performs exactly as an "Urban Living Room" where different social groups encounter. Therefore, Sage Gateshead Music Centre acts as a positive example that interprets the pragmatic role of iconic buildings in promoting social engagement.