2013

Architecture Abstracts

Third Annual International
Conference on Architecture
10-13 June 2013, Athens, Greece

Edited by Gregory T. Papanikos

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(In Alphabetical Order by Author's Family name)

Preface

This abstract book includes all the summaries of the papers presented at the *3rd Annual International Conference on Architecture, 10-13 June 2013,* organized by the Sciences and Engineering Research Division of the Athens Institute for Education and Research. In total there were 140 papers and 173 presenters, coming from 39 different countries (Australia, Austria, Bangladesh, Belgium, Bosnia & Herzegovina, Brazil, Bulgaria, Canada, Chile, China, Denmark, Estonia, Finland, France, Greece, Israel, Italy, Malaysia, Mexico, Poland, Portugal, Qatar, Romania, Serbia, Slovakia, South Africa, South Korea, Spain, Sweden, Switzerland, Taiwan, Thailand, The Netherlands, Turkey, UAE, UK, USA). The conference was organized into 32 sessions that included areas of Architectural History, Building Typology, Environmental Behaviour, Place Making, Theory Paradigms and other related fields. As it is the publication policy of the Institute, the papers presented in this conference will be considered for publication in one of the books of ATINER.

The Institute 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 in Athens and exchange ideas on their research and consider the future developments of their fields of study. Our mission is to make ATHENS a place where academics and researchers from all over the world meet to discuss the developments of their discipline and present their work. To serve this purpose, conferences are organized along the lines of well established and well defined scientific disciplines. In addition, interdisciplinary conferences are also organized because they serve the mission statement of the Institute. Since 1995, ATINER has organized more than 150 international conferences and has published over 100 books. Academically, the Institute is organized into four research divisions and nineteen research units. Each research unit organizes at least one annual conference and undertakes various small and large research projects.

I would like to thank all the participants, the members of the organizing and academic committee and most importantly the administration staff of ATINER for putting this conference together.

Gregory T. Papanikos
President

FINAL CONFERENCE PROGRAM
3ʳᵈ Annual International Conference on Architecture, 10-13 June 2013, Athens, Greece

<u>Conference Venue: Titania Hotel (52 Panepistimiou Avenue)</u>

<u>PROGRAM</u>

<u>ORGANIZING AND SCIENTIFIC COMMITTEE</u>

1. Dr. Gregory T. Papanikos, President, ATINER.
2. Dr. George Poulos, Vice-President of Research, ATINER & Emeritus Professor, University of South Africa, South Africa.
3. Dr. Nicholas Pappas, Vice-President of Academics, ATINER & Professor, Sam Houston University, USA.
4. Dr. Nicholas Patricios, Head, <u>Architecture & Engineering Research Unit</u>, ATINER & Professor of Architecture, University of Miami, USA
5. Dr. Thomas Attard, Associate Research Professor, Arizona State University, USA.
6. Dr. Stavros Alifragkis, Academic Member, <u>Architecture & Engineering Research Unit</u>, ATINER & Adjunct Lecturer, Hellenic Army Academy, Athens, Greece.
7. Dr. Howayda Al-Harithy, Professor, American University of Beirut, Lebanon.
8. Dr. Patrick Ashton, Associate Professor, Indiana University Purdue University Fort Wayne, USA.
9. Dr. Debnath Bhattacharyya, Professor, MPCTM, Gwalior, India.
10. Dr. Stella B. Bondi, Associate Professor, Old Dominion University, USA.
11. Mr. Moamer Gashoot, Researcher, Bournemouth University, UK.
12. Dr. Matthew Kubik, Associate Professor, Indiana University Purdue University Fort Wayne, USA.
13. Dr. Caterina Pizanias, Instructor, University of Calgary, Canada.
14. Dr. Virginia Sisiopiku, Associate Professor, The University of Alabama at Birmingham, USA.
15. Ms. Lila Skountridaki, Researcher, ATINER & Ph.D. Student, University of Strathclyde, U.K.
16. Mr. Vasilis Charalampopoulos, Researcher, ATINER & Ph.D. Student, University of Stirling, U.K.

<u>Administration</u>
Fani Balaska, Stavroula Kiritsi, Eirini Lentzou, Konstantinos Manolidis, Katerina Maraki & Celia Sakka

C O N F E R E N C E   P R O G R A M
(The time for each session includes at least 10 minutes coffee break)
Monday 10 June 2013

07:30-08:30 Registration
08:30-09:00 Welcome and Opening Remarks
- Dr. Gregory T. Papanikos, President, ATINER.
- Dr. George Poulos, Vice-President of Research, ATINER & Emeritus Professor, University of South Africa, South Africa.
- Dr. Nicholas Patricios, Head, Architecture & Engineering Research Unit, ATINER & Professor of Architecture, University of Miami, USA.

09:00-11:00 Session I (Room A): Architectural History I Chair: Nicholas Pappas, Vice-President of Academics, ATINER & Professor of History, Sam Houston University, USA.	09:00-11:00 Session II (Room B): Building Typology I Chair: George Poulos, Vice-President of Research, ATINER & Emeritus Professor, University of South Africa, South Africa.
1. *Gevork Hartoonian, Professor, University of Canberra, Australia. Tectonic Modalities in Baroque Architecture. 2. Nancy Klein, Associate Professor, Texas A&M University, USA. The 'Life History' of Building A on the Acropolis of Athens. 3. Kemal Reha Kavas, Assistant Dean and Chair of the Architectural History Program, Akdeniz (Mediterranean) University, Turkey. Environmental Aesthetics in Medieval Castelvecchio Calvisio (Abruzzo, Italy): Settlement and Architecture. 4. Liang-Ping Yen, Adjunct Assistant Professor, National Quemoy University, Taiwan. Discussions on the Writings of Architectural History under Cultural Essentialism.	1. *llker Fatih Ozorhon, Assistant Professor, Ozyegin University, Turkey. Reflections of Modernization in Turkish Architecture in 1950's: The Case of Cinnah 19. 2. Marietta Monaghan, Instructor, Southern Polytechnic State University, USA. Building a City in the Wilderness: Hospitals at Alabama Power Company Construction Camps. 3. Katrin Koov, Architect, Estonian Academy of Arts, Estonia. Imprint. 4. Domenico Chizzoniti, Assistant Professor, Politecnico of Milano, Italy. Montage and Composition. The Conception of Architectural Space. 5. *Jens Christian Pasgaard, Post-doc, Architect MAA, The Royal Danish Academy of Fine Arts, Denmark. Tourism-Dominated Spaces – Hotel Lobbies Seen as Spatial Strategic Drivers.
09:00-11:00 Session III (Room C): Environmental Behaviour I Chair: Stavros Alifragkis, Academic Member, Architecture & Engineering Research Unit, ATINER & Adjunct Lecturer, Hellenic Army Academy, Athens, Greece.	09:00-11:00 Session IV (Room D): Place Making Chair: Lila Skountridaki, Researcher, ATINER & Ph.D. Student, University of Strathclyde, U.K.
1. Haniyeh Razavivand Fard, PhD Student, Istanbul Technical University, Turkey & Shilan Gharnfoli, PhD Student, Istanbul Technical University, Turkey. Evaluation of Residential Satisfaction in Urban Renewal Project Navvab.	1. Norsidah Ujang, Lecturer, Universiti Putra Malaysia, Malaysia. Linking Walkability and Place Attachment to Tourism Places in the City of Kuala Lumpur, Malaysia. 2. Jason Scroggin, Assistant Professor, University of Kentucky College of

2. Zeynab Asgari, PhD Student, University of Strathclyde, UK, Michael P. Grant, Professor, University of Strathclyde, UK & Claire Anne Hyland, PhD Student, University of Strathclyde, UK. Sensory Architecture in Silent Vision; An Investigation through Designing Public Architectural Spaces for Visually Impaired Users. 3. *Frank Delmulle, Architect, Campus Sint-Lucas Gent, Belgium. The Obviousness of Use and Perception in Architecture. 4. Shanshan Li, PhD Student, Politecnico di Torino, Italy. User-participation – An Essential and Practical Way to Flexible Housing.	Design, USA. The Field in the Object. 3. *Lineu Castello, Professor, UFRGS (Federal University of Rio Grande do Sul), Brazil. The Fictional Environment.
11:00-12:30 Session V (Room A): Architectural History II Chair: *Gevork Hartoonian, Professor, University of Canberra, Australia.	11:00-12:30 Session VI (Room B): Building Typology II Chair: *llker Fatih Ozorhon, Assistant Professor, Ozyegin University, Turkey.
1. *Qinghua Guo, Professor, University of Melbourne, Australia. Types & Functions: Archaic Chinese and Greek Roof Tiles. 2. Jing Xie, Assistant Professor, University of Nottingham, Ningbo, China. Instrumental Forms: An Historical Inquiry of the Architecture in 19th Century England. 3. Bilge Ulusay Alpay, Assistant Professor, Mimar Sinan Fine Arts University, Turkey & Pelin Gokgur, Associate Professor, Mimar Sinan Fine Arts University, Turkey. Urban Design as a Method for the Re-Evaluation of Historical Environments: The Case Study of Besiktas Akaretler Row Houses. 4. Abe Yillah Roman Alvarado, Architectural Historiography Researcher, Universidad Autonoma Metropolitana – Azcapotzalco, Mexico. Tradition and Modernity in the Regional Architectural Landscape in Mexico in the Late Nineteenth. A Case Study.	1. Serpil Ozker, Assistant Professor, Dogus University, Turkey & Elif Suyuk Makakli, Assistant Professor, Maltepe University, Turkey. The Comparison of the Space Usage in Turkish Cinema from Past to Nowadays. 2. Yasemen Say Ozer, Associate Professor, Yildiz Technical University, Turkey & Nevzat Oguz Ozer, Associate Professor, Mimar Sinan Fine Arts University, Turkey. The Architecture of the Ancient Theatre of Caunus City. 3. Yavuz Arat, Assistant Professor, Necmettin Erbakan University, Turkey. Analysis of Traditional Konya House Indoor Components According to Anthropometric Data; Samples of Sedirs. 4. Miguel Silva Graca, Researcher, University of Coimbra, Portugal. Shopping (&) Center: Retail Building Typology or New Urban Component of Contemporary European City?
11:00-12:30 Session VII (Room C): Environmental Behaviour II Chair: *Frank Delmulle, Architect, Campus Sint-Lucas Gent, Belgium.	11:00-12:30 Session VIII (Room D): Theory Paradigms I Chair: *Lineu Castello, Professor, UFRGS (Federal University of Rio Grande do Sul), Brazil.

1. Eren Erdener, Associate Professor, The University of Oklahoma, USA. Space Utilization - Introduction to an Unobtrusive Method of Building Analysis for Evaluation and Programming. 2. Shuang Song, Master of Architecture (Research), School of Architecture, Tianjin University, China, Yukun Zhang, Professor, School of Architecture, Tianjin University, China & Sinan Yuan, Lecturer, School of Architecture, Tianjin University, China. Experimental Research in Urban Spatial Cognition by using Virtual Reality Technology. 3. Ewa Stachura, Professor, University of Economics in Katowice, Poland & John Dee, Professor, International University of Sarajevo, Bosnia.. Contemporary Housing in Poland: Product versus Preference.	1. *Pasquale Lovero, Professor, Università IUAV di Venezia, Italy. Requisites of Architectural Languages in the Case of Scientific Types of Design Procedures. 2. *Havva Alkan Bala, Associate Professor, Selcuk University, Turkey. The Semiology of Landmarks in Urban Space. 3. Nilgun Kuloglu, Associate Professor, Karadeniz Technical University, Turkey & Serap Durmus, PhD Student, Karadeniz Technical University, Turkey. Architecture and Technology: Architect's Expression Language in Design Process. 4. Stephen Wischer, Assistant Professor, North Dakota State University & McGill University, USA. Anselm Kiefer's La Ribaute: Architectural Hermeneutics and the Space of Dramatic Representation
12:30-14:00 Session IX (Room A): Architectural History III Chair: *Qinghua Guo, Professor, University of Melbourne, Australia.	12:30-14:00 Session X (Room B): Building Typology III Chair: *Pasquale Lovero, Professor, Università IUAV di Venezia, Italy.
1. Asu Besgen, Associate Professor, Karadeniz Technical University, Turkey & Solen Koseoglu, Research Assistant, Karadeniz Technical University, Turkey. Post Modern Traces in Turkish Architecture in 1900s. 2. Kevin Glowacki, Assistant Professor, Texas A&M University, USA. The Use of Space Syntax Analysis for the Study of Late Bronze Age/Early Iron Age Domestic Architecture on Crete. 3. <u>Deniz Erinsel Onder</u>, Professor, Yildiz Technical University, Turkey & Sevde Korkmaz, Ph.D. Student, Yildiz Technical University, Turkey & Deniz Erinsel Onder, Yildiz Technical University, Turkey. The Visibility Graph and Syntactical Analysis of Spatial Organisation in Traditional Buca Houses. (Monday 10 June 2013)	1. Veronika Kvardova, PhD Student, Slovak University of Technology in Bratislava, Slovakia. Architectural Style and Decoration of the Industrial Buildings from the late 19th Century and the Early 20th Century. 2. Claire Anne Hyland, PhD Student, University of Strathclyde, UK, David Grierson, Professor, University of Strathclyde, UK & Zeynab Asgari, PhD Student, University of Strathclyde, UK. 10 out of 10 for Scottish School Design? - Providing an Accessible, Sustainable Environment for 21st Century Education. 3. Paola La Scala, PhD Student, University of Palermo, Italy. Museums and Exhibition Design in the Digital Age. 4. Laura Ciammitti, PhD Student, University of L'Aquila, Italy. Ancient Material and Steel: Project Strategies on the Content and the Container of the Museums in the Period of the Italian Reconstruction. 5. <u>H. Abdullah Erdogan</u>, Research

	Assistant, Selcuk University, Turkey & Ebru Erdogan, Assistant Professor, Selcuk University, Turkey. Reuse of Historical Train Station Buildings: Examples from the World and Turkey. 6. Jan Pallado, Head of Department, Silesian University of Technology, Poland. Non-Staircase Multi-Family Houses.
12:30-14:00 Session XI (Room C): Architects and Architecture I Chair: Eren Erdener, Associate Professor, The University of Oklahoma, USA.	12:30-14:00 Session XII (Room D): Pedagogy I Chair: *Havva Alkan Bala, Associate Professor, Selcuk University, Turkey.
1. Francois Blanciak, Lecturer, University of Sydney, Australia. Revolutionary Objects: Pure Forms and Disorder in the Work of Ivan Leonidov. 2. Luciano Cardellicchio, Lecturer, University of Kent, UK. A Method for Contemporary Archaeology: The New Hertziana Library by Juan Navarro Baldeweg. 3. Esin Komez, Researcher, Delft University of Technology, The Netherlands. Reinterpreting the Contemporary Architectural Practice in Turkey in the light of Context Debate.	1. Terry Moor, Professor, Wentworth Institute of Technology, USA. When Least Is Most – A Lesson in Minimal Shelter. 2. Guliz Ozorhon, Assistant Professor, Ozyegin University, Turkey, Semra Tokay, Assistant Professor, Ozyegin University, Turkey & Ilker Ozorhon, Assistant Professor, Ozyegin University, Turkey. A Research about First Design Studio (Fds) in Architectural Education. 3. *Anthony Titus, Assistant Professor, Rensselaer Polytechnic Institute, USA. Hybridized Pedagogies: Architectural Education in Motion. 4. Irem Yilmaz, Research Assistant, Gazi University, Turkey, Nur Caglar, Professor, TOBB University, Turkey & Adnan Aksu, Associate Professor, Gazi University, Turkey. Towards an Experimental Approach in Design Research: Urban Archi-Scapes Studio. 5. Angeliki Sioli, PhD Student, McGill University, Canada. The Re-writing Hi-story Project; or Running a Studio for a History Course.

14:00-15:00 Lunch Break (details during registration)

15:00-16:30 Session XIII (Room A): Theory Paradigms II Chair: *Michael K. Kim, Professor, University of Illinois at Urbana-Champaign, USA.	15:00-16:30 Session XIV (Room B): Architects and Architecture II Chair: Stavros Alifragkis, Academic Member, Architecture & Engineering Research Unit, ATINER & Adjunct Lecturer, Hellenic Army Academy, Athens, Greece.	15:00-16:30 Session XV (Room C): Pedagogy II Chair: *Anthony Titus, Assistant Professor, Rensselaer Polytechnic Institute, USA.
1. Renato Bocchi, Professor, University Iuav of Venezia, Italy. The Belly of Architecture. 2. Kevin Erickson, Assistant Professor, University of Illinois, USA. Prototype vs. Paper Architecture. 3. James Spiller, Lecturer, Iowa State University, USA & Patrick Rhodes, Lecturer, Iowa State University, USA. The Ghost in the Machine. 4. Serap Durmus, Research Ass. PhD Student, Karadeniz Technical University, Turkey & Sengul Oymen Gur, Professor, Beykent University, Turkey. A Methodology Attempt to Re-thinking Architecture: Rhetoric Reading. 5. Irina Ioana Voda, PhD Student, Technical University of Cluj-Napoca (UTCN); Ecole Nationale Superieure d'Architecture de Grenoble (ENSAG), Romania; France, Adriana Matei, Professor, Technical University of Cluj-Napoca, Romania & Anne Coste, Professor, Ecole Nationale	1. Shuenn-Ren Liou, Associate Professor, National Cheng Kung University, Taiwan. A Comparative Study on Álvaro Siza's Architectural Works in Asia. 2. Carlos Cabral Machado, Teacher, University of Porto (FAUP), Portugal. Álvaro Siza and the Fragmented City. 3. Catarina Gomes Sampaio, PhD Student, University of Porto (FAUP), Portugal. Alvar Aalto's and Álvaro Siza's Construction of Place and Landscape. 4. Alessandro Rossi, PhD Student & Tutor, University of Canberra, Australia & Nugroho Utomo, PhD Student & Tutor, University of Canberra, Australia. Le Corbusier: of the Plasticity of Excess. 5. Dale Laurin, Consultant, Aesthetic Realism Foundation, USA. Le Corbusier & the Debate in People between Coolness & Warmth.	1. Michael Leighton Beaman, Assistant Professor, University of Texas in Austin, USA. Computational/Material Simulations. 2. Natacha Drobnjak Touati, Assistant Professor, The National School of Architecture and Urbanism of Tunis, Tunisia. Didactic Evaluation of the Notion of Revelation in the Self-Critical Reflection on the Plastic-Conceptual Decision of an Architecture Student. 3. Matteo Giuseppe Romanato, PhD Student, Politecnico di Milano, Italy. The Representation of Virtual/Real Architecture and Perspective Space. 4. *Asma Gharbi, Architect, High School of Architecture and Urbanism, Tunisia & Hayet Badrani, High School of Architecture and Urbanism, Tunisia. «The Active Design Process»: A New Reference for Architecture Education. 5. Jorge Canastra Marum, Assistant Professor, CITAD, Portugal & Maria Canteiro Neto,

Superieure d'Architecture de Grenoble, France. The Ineffable in Contemporary Architecture.	Researcher, CITAD, Portugal. The Place of Photography in the Architecture Education. Culture and Process.
16:30-18:00 Session XVI (Room A): Methods I Chair: Nico Kotze, Professor, University of Johannesburg, South Africa.	16:30-18:00 Session XVII (Room B): Design Processes I Chair: *Asma Gharbi, Architect, High School of Architecture and Urbanism, Tunisia
1. Vacharee Vacharasin, Associate Professor, King Mongkut's Institute of Technology, Thailand. Application of Imaging Technology to Geometrical Study: Case Study of Prasat Pimay Sandstone Sanctuary, Thailand. 2. Taymoore Balbaa, Assistant Professor, Ryerson University, Canada. Architecture of Arid Climates: New and Traditional Models of Bioclimatic Construction. 3. Marta Magagnini, Researcher, University of the Studies of Camerino, Italy. City Scans for an Emotional Survey Formula: Walking, Stumbling, Detecting, Drawing, Measuring and Mapping. 4. Matin Alaghmandan, PhD Candidate, Illinois Institute of Technology, USA, <u>Nurullah Alper Pehlivan</u>, PhD Student, Illinois Institute of Technology, USA & Mahjoub Elnimeiri, Professor, Illinois Institute of Technology, USA. Architectural and Structural Development of Tall Buildings. 5. Mariarosaria Villani, Architect, University of Naples "Federico II", Italy, Luigi Veronese, Professor, University of Naples "Federico II", Italy, Arianna Spinosa, Professor, University of Naples "Federico II", Italy & Maria Falcone, University of Naples "Federico II", Italy. Rural Architecture in Sorrento-Amalfitan Coast. Constructive Tradition and Prospect for Preservation. 6. Sam Moshaver, PhD Student, University of Montreal, Canada & Architecture Student at Azad University, Iran. Implementing Inclusionary Zoning into Canada's	1. *Michael K. Kim, Professor, University of Illinois at Urbana-Champaign, USA. Design Reasoning: The Logic, the Problems, and the Strategies. 2. Selcuk Sayin, Research Assistant, Selcuk University, Turkey. Comparison of the Architectural Design Processes of Prescriptive Approach and Performance Approach. 3. Sebnem Cakalogullari, Architectural Design Master of Science Student, Istanbul Technical University, Turkey & Melis Baloglu, Architectural Design Master of Science Student, Istanbul Technical University, Turkey. Out of Rule. 4. Serbülent Vural, Assistant Professor, Karadeniz Technical University, Turkey & <u>Selin Oktan</u>, Research Assistant, Karadeniz Technical University, Turkey. Architecture of Electronic Revolution.

Affordable Housing Market.		

18:00-20:00 Session XVIII (Room A): Urbanism I Chair: *Jens Christian Pasgaard, Post-doc, Architect MAA, The Royal Danish Academy of Fine Arts, Denmark.	18:00-20:00 Session XIX (Room B): Sustainability Chair: Taymoore Balbaa, Assistant Professor, Ryerson University, Canada.	
1. Nico Kotze, Professor, University of Johannesburg, South Africa. Hidden in Plain Sight: The Plight of the Population of Nthabaseng Village, South Africa. 2. Kersten Christian Hofbauer, Scientific Assistant, Graz University of Technology, Austria & Elham Madadi-Kandjani, PhD Candidate, Graz University of Technology, Austria. Influence of Regenerating of Large Housing Estates on Sustainable Urban Living condition - Benefits or Threats? 3. Lejla Kresevljakovic, Teaching Assistant, Architecture Faculty Sarajevo, Bosnia and Herzegovina. Social Dissolution's Reflection on Housing in Afterwar Bosnia and Hercegovina. 4. Zuzana Haburajova Kepicova, PhD Student, Slovak University of Technology in Bratislava, Slovakia, Simona Sovcikova, PhD Student, Slovak University of Technology in Bratislava, Slovakia & Lucia Stefancova, PhD	1. El Amrousi Mohamed, Assistant Professor, Abu Dhabi University, United Arab Emirates & Sadeka Shakour, Assistant Professor, Abu Dhabi University, United Arab Emirates. Sustainable Architecture in Rapidly Developing Gulf Cities: A Search for Identity. 2. *Rosanna Maria Morleo, PhD Student, Sapienza University of Rome, Italy, Salvatore Dierna, Professor Emeritus, Sapienza University of Rome, Italy, Fabrizio Tucci, Associate Professor, Sapienza University of Rome, Italy, Franco Cipriani, Contract Professor, Sapienza University of Rome, Italy, Marco Cimillo, PhD, Sapienza University of Rome, Italy & *Valeria Cecafosso, PhD, Sapienza University of Rome, Italy. An Environmentally Conformed Settlement in Salve (Lecce, Italy) A Model of Bioclimatic Approach, Energy Efficiency and Environmental Sustainability in the Mediterranean Sea. 3. Antonio Zumelzu, PhD Student, Eindhoven University of	7.

Student, Slovak University of Technology in Bratislava, Slovakia. Transformation of Urban Structure Identity. 5. Sinan Yuan, Lecturer, School of Architecture, Tianjin University, China. Quantitative Analyses of Street Network Density in Diverse Urban Contexts.	Technology, Chile, Kees Doevendans, Associate Professor, Eindhoven University of Technology (TU/e), The Netherlands & Bruno De Meulder, Professor/Head of Research Groups Urbanity & Architecture (OSA), Catholic University of Belgium (KU Leuven), Belgium. Eindhoven as an Example of Pragmatic Sustainable Design: Preparing the Period of the Post Carbon City. 4. Goran Marinovic, PhD Student, Seoul National University, South Korea & Baek Jin, Professor, Seoul National University, South Korea. "I would prefer not to": The Image of a Sustainable Architecture. 5. Kerimcan Apak, PhD Student, Politecnico Di Milano, Italy. Degradation Of Historical Turkish Bath Structure Relation With Historical Preventive Construction Techniques Against Seismic Forces. 6. Santina Di Salvo, Architect Researcher, University of Palermo, Italy. Cultural Content of Lighting for the Discovery of Archaeological Heritage.	

21:00–23:00 Greek Night (Details during registration)

Tuesday 11 June 2013

08:00-10:00 Session XX (Room A): Urbanism II Chair: Dr. Nicholas Patricios, Head, <u>Architecture & Engineering Research Unit</u>, ATINER & Professor of Architecture, University of Miami, USA

1. Fatih Rifki, Professor, Montana State University, USA. It is Imperative to Merge Sectoral Efforts to Solve Urban Environmental Problems and Pursue Opportunities in Cities.
2. Jan Fugl, Associate Professor, Architect MAA, Aarhus School of Architecture, Denmark. The Future of a Metropolis - Planning 100 Years Ahead!? Were the Predictions and Considerations of Constantinos Apostolos Doxiadis about the Future of Copenhagen only Academic?
3. *Deborah A. Middleton, Assistant Professor, Ball State University, USA. Making Riyadh Modern: C. A. Doxiadis' Ekistic Design Strategies for Urban Growth, Change and Continuity.
4. Zeynep Tuna Ultav, Instructor, Izmir University of Economics, Turkey. The Fictional Representation of Modernist Urban Concentration in the Work of J.G. Ballard.
5. Barbara Buehler, Associate, Aesthetic Realism Foundation, USA. Jane Jacobs - The Fight in Every Person between Knowing and Managing.
6. Fabiano Micocci, Fellow, Urban Transcripts, Greece & Cristiano Lippa, Postdoctoral Fellow, University of Tokyo, Japan. Athens as a Geographical Artefact: Envisioning a New Productive and Social Landscape in the Thick Topography of the City. (Tuesday)
7. Constantino Mawromatis, Architect, Assistant Professor, Universidad de Chile, Chile. Placemaking as Common Ground for Diverse Alternative Town Planning Approaches.

10:00-11:30 Session XXI (Room A): Design Processes II Chair: *Athanasios Athanasopoulos, MPhil Candidate, University of Cambridge, UK.	10:00-11:30 Session XXII (Room B): Methods II Chair: Eren Erdener, Associate Professor, The University of Oklahoma, USA.
1. *Caroline Lecourtois, Professor and Researcher, National School of Architecture of Paris-La Villette, France. Designing Ecological Urban Shapes. 2. Alessandro Dalla Caneva, Professor, University of Padua, Italy. Willem Marinus Dudok in Hilversum. The Primary Role of Schools in the Construction of Urban Space. Idea and Method. 3. Luz Jimenez, PhD Student, Universidade Tecnica de Lisboa, Portugal. Designing the Muse of the Space. 4. Nopadon Thungsakul, Assistant Professor, Khon Kaen University, Thailand & Kunlasri Thungsakul, Assistant Professor, Khon Kaen University, Thailand. Approach for Contemporary Rural Housing Prototype Design.	1. *Rosa Urbano Gutierrez, Lecturer, University of Liverpool, UK & *Amanda Wanner, Associate Senior Lecturer, Leeds Metropolitan University, UK. Light in Ceramic Architectural Skins. 2. Salena Savic, Researcher, EPFL, Switzerland. Emperor's New Architecture: The Role of Wireless Communication in the Construction and Mediation of Space. 3. Emilio Antoniol, PhD Student, IUAV University of Venice, Italy. Development of a Shading Device Efficiency Verification Method using Software Simulations. 4. *Monica Sater, Researcher, Chalmers, Sweden. Lighting Design a Natural Part of Architecture with Strong Connection to Important Goals in Society. 5. Md Ashikur Rahman Joarder,

5. Tine Van Herck, Teacher; Researcher, LUCA, School of Arts (KULeuven), Belgium. Method for a Human based Design Process	Assistant Professor, University of Engineering and Technology (BUET), Bangladesh & Zebun Nasreen Ahmed, Professor, Bangladesh University of Engineering and Technology (BUET), Bangladesh. Daylighting Inside Glass Box: Responsiveness of Interior Design to External Façade.
10:00-11:30 Session XXIII (Room C): Heritage I Chair: *Deborah A. Middleton, Assistant Professor, Ball State University, USA.	10:00-11:30 Session XXIV (Room D): Construction Chair: *Flavia Marcello, Lecturer, Deakin University, Australia
1. Alexandru Tiotiu, PhD Student, Technical University of Cluj-Napoca, Romania & Adriana Matei, Professor, Technical University of Cluj-Napoca, Romania. Methods of Identifying the Historical Centers Values and Their Potential for Future Development. 2. Pelin Yildiz, Associate Professor, Hacettepe University, Turkey. The Analysis of Cave Houses as Archetypes of Shelter Formation in Cappadocia Region, Turkey.	1. Pablo Bris, Professor, Technical University of Madrid, Spain. Houses Built from Accommodating Cabins. 2. *Emil Osorio Schmied, Academic, University Austral of Chile, Chile. Moved by Water. The Architecture of a "Minga" in Southern Chile. 3. Xiaoming Hu, PhD Student, Architecture School of Southeast University, China. Material Autograph: Rethinking on the Design of Qiqiaoweng Wooden Pavilions from a Tectonic Perspective. 4. Shaghayegh Rajabzadeh, PhD Student, Politecnico di Torino, Italy & Mario Sassone, Assistant Professor, Politecnico di Torino, Italy. Reviving of Contemporary Masonry Structural Design.
11:30-13:00 Session XXV (Room A): Design Processes III Chair: *Caroline Lecourtois, Professor and Researcher, National School of Architecture of Paris-La Villette, France.	11:30-13:00 Session XXVI (Room B): Individual Buildings Chair: *Rosa Urbano Gutierrez, Lecturer, University of Liverpool, UK
1. Khosrow Bozorgi, Professor, The University of Oklahoma, USA. The Influence of Social Customs, Architectural principles, and Environmental Factors. 2. Paul Mihai Moldovan, PhD Student, Faculty of Architecture and Urban Planning in Cluj-Napoca, Romania, Ecole Nationale Supérieure d'Architecture de Grenoble, France. Drafting. Network. Code. 3. *Athanasios Athanasopoulos, MPhil	1. Enrico Pietrogrande, Assistant Professor, University of Padua, Italy & Adriano Rabacchin, teaching assistant, University of Padua, Italy. New Public Spaces in the Historic City Centre. The Verdi Theatre Area in Padua, Italy, as a Case Study. 2. *Ursula de Jong, Senior Lecturer, Deakin University, Australia. A City and its Cathedral: St Patrick's Cathedral Melbourne, Victoria, Australia.

Candidate, University of Cambridge, UK. Environmental Airport Design: Towards a New Design and Urban Approach. 4. Nina Toleva, PhD Student, UACEG, Bulgaria. Parameters VS Algorithms – The New Urban Paradigm.	3. *Flavia Marcello, Lecturer, Deakin University, Australia & Ian Woodcock, Research Fellow, Deakin University, Australia. Countering Totalitarianism: The Reconfiguration of Monumentality in Post-War Rome. 4. Riitta Niskanen, Researcher, Lahti City Museum, Finland. How to Save the Memory – The Case of the Round Tower in Vyborg. 5. Esther Grabiner, Lecturer, Tel Aviv University, Israel. Identity Shaping Landscape People's Houses in Israel – A Case Study. (Tuesday)
11:30-13:00 Session XXVII (Room C): Theory Paradigms III Chair: *Monica Sater, Researcher, Chalmers, Sweden.	11:30-13:00 Session XXVIII (Room D): Materials & Energy I Chair: *Amanda Wanner, Associate Senior Lecturer, Leeds Metropolitan University, UK
1. Marc Belderbos, Professor, UCL LOCI, Belgium. Architecture as Inauguration of 'Das da sein'. 2. Vladimir Mako, Professor, University of Belgrade, Serbia. Light as a Metaphor of Dwelling: a few 20th Century Examples. 3. *Nadia Bertolino, Research Fellow, University of Pavia, Italy. Proposal for a New Architectural Theory: How to Establish a Renewed Balance between Man and Nature. (Tuesday 11 June 2013) 4. Stefan Dragos Dascalu, PhD Student, Technical University of Cluj Napoca, Romania, Sebastian Ionescu, Professor, Technical University of Cluj Napoca, Romania & Teodora Balan, Professor, Technical University of Cluj Napoca, Romania The Phalanstery Paradigm. Paradoxes of Architectural Determinism. 5. *Daniela V. de Freitas Simoes, PhD Candidate, University NOVA of Lisbon, Portugal. Reading Architecture from the Center to the Periphery.	1. Michele Chiuini, Professor, Ball State University, USA, Walter Grondzik, Professor, Ball State University, USA & Mark McGinley, Professor, Ball State University, USA. The American Solar Home: Typology and Technology. 2. Nan-Wei Wu, Post-Doctoral Fellow, National Cheng Kung University, Taiwan & Chao-Ching Fu, Distinguished Professor, National Cheng Kung University, Taiwan. Material that Talks: Material Use of Architectural Surface in Semiotic Implications. 3. Ruchie Kothari, Student, Carnegie Mellon University, USA. Development of a New 'State-of-the-Art' Building Energy Dashboard: C3. 4. Marion Chauvin-Michel, Teacher and Researcher, Institut National des Sciences Appliquées (INSA), France. Solar Architecture and Energy Policies in Europe during the Petrol Crisis.

13:00-14:00 Lunch (Details during registration)

14:00-15:30 Session XXIX (Room A): Theory Paradigms IV Chair: *Nadia Bertolino, Research Fellow, University of Pavia, Italy.	14:00-15:30 Session XXX (Room B): Energy II Chair: *Emil Osorio Schmied, Academic, University Austral of Chile, Chile.	14:00-15:30 Session XXXI (Room C): Heritage II Chair: Fatih Rifki, Professor, Montana State University, USA
1. Peter Richter, Professor, Karlsruhe Institute of Technology, Germany. How to Evaluate the Quality of Architecture. 2. Pimwadee Eomthurapote, Head of Academic and Research, Thammasat University Rangsit Campus, Thailand. Thai Concept of Forms: A Case Study of the Ordination Hall 'Sim' or 'Ubosot' through Platoian Analysis. 3. Eduardo Jorge Cabral dos Santos Fernandes, Assistant Professor, School of Architecture of the University of Minho, Portugal. The Cognitive Methodology of the "Porto School": Foundation and Evolution to the Present Day. 4. Clara Germana Ramalho Moutinho Goncalves, Researcher, University Lusíada, Portugal. Interdisciplinary Perspectives in Architectural Research. 5. Andrea Monteiro Vicente, PhD Student, University of Beira Interior, Portugal & Miguel Santiago, Professor, University of Beira Interior, Portugal. Education through Architecture.	1. Nik Nikolov, Assistant Professor, Lehigh University, USA. Use of Environmental Parameters in Façade Design with Photo-Catalytic Concrete. 2. Zheng Wang, PhD Student, Architecture School of Southeast University, China. Earth and Light Steel: New Tectonic of Material in Chinese Neo-Vernacular Architecture. 3. Md Rian Iasef, PhD Student, Politecnico di Torino, Italy & Mario Sassone, Assistant Professor, Politecnico di Torino, Italy. Botanical Tree, a Source of Inspiration for Designing Biomimetic Fractal Architecture. 4. Eboziegbe Aigbomian, Researcher, Brunel University, UK & Mizi Fan, Chair in Low Carbon Materials and Civil Engineering, Director, Brunel University, UK. Development of Wood-Crete Using Wood Waste and Low Cost Inorganic Binders.	1. Elisa Fain, PhD Student, Polimi - Polytechnic of Milan, Italy. Reinforced Concrete in Anastylosis: The Establishment of a New Technique. 2. Giulia Campanini, PhD Student, Politecnico di Milano, Italy. Seismic Vulnerability of Building Heritage in Aggregate, Civita di Bagnoregio Study Case. 3. *Arthur Chen, Associate Professor, University of Minnesota, USA. Maneaba: The Impact of Climate Change on the Heritage Conservation in Kiribati.

15:30-17:00 Session XXXII (Room A): Laws & Practice
Chair: *Arthur Chen, Associate Professor, University of Minnesota, USA.

1. Yasser Mahgoub, Associate Professor, Qatar University, Qatar. The Impact of Building Legislation on the Transformation of Architecture in the Gulf Region.
2. Suha Jaradat, Doctoral Researcher, University of Reading, UK. Can the Architect be the Virtual Master Mason?
3. Del Espino Hidalgo Blanca, Researcher, University of Seville, Spain, M Teresa Perez Cano, Professor, University of Seville, Spain & Ramila Arjona Rocio, Researcher, University of Seville, Spain. Historic Cities Conservation Throughout Cultural Heritage Laws: Andalusian Historic Areas.

17:30-20:30 Urban Walk (Details during registration)

21:00-22:00 Dinner (Details during registration)

Wednesday 12 June 2013
Cruise: (Details during registration)

Thursday 13 June 2013
Delphi Visit: (Details during registration)

Eboziegbe Aigbomian
Researcher, Brunel University, UK
Mizi Fan
Chair in Low Carbon Materials and Civil Engineering, Director, Brunel University, UK

Development of Wood-Crete Using Wood Waste and Low Cost Inorganic Binders

The objective of this study was to investigate the feasibility of making sawdust-wastepaper-lime and sawdust-wastepaper-cement composites with the aim of producing sustainable panel (Wood-Crete) which is lightweight, with good insulating properties and able to withstand considerable amount of impact load.

The results showed that 1) lightweight sustainable blocks can be produced with good insulating and other relevant properties for building construction. Density and compressive strength of wood-crete made from general sawdust with addition of waste paper ranging from 411 to 713kg/m3 and compressive strength from 0.21 to 0.80MPa and wood-crete made from specific type of sawdust (soft and hardwood) ranging from 424 to 859kg/m3 density and compressive strength from 0.06 to 1.19MPa; 2) the properties were closely related to the composition of wood-crete with a lower ratio 1:2 of sawdust to tradical lime giving rise to higher compressive strength; 3) an addition of waste paper had a dominant influence on both strength and thermal conductivity, reflecting its effect on the structure of composite and contribution of self strength of paper fibres; 4) thermal conductivity values ranging from 0.046 – 0.07 k (W/mK) which shows a possible use of wood-crete as insulating materials when compared with the values of polyurethane foam and wood which are 0.02 and 0.09 – 0.04 respectively; 5) the size of sawdust also had an influence on the properties with the 2mm being more suitable than 3mm sawdust.

Composite blocks were found to be unfit for load bearing wall construction and medium heavy load wall construction as a result of poor compressive strength but can be used for interior wall panelling requiring no considerable amount of structural performance.

Havva Alkan Bala
Associate Professor, Selcuk University, Turkey

The Semiology of Landmarks in Urban Space

In the literature the terminology of semiology can be categorized in two groups. The first group is used semiology as a scientific study of communication system namely signs. The second group used semiology as the study of human phenomena. In this study the semiology is used signs as well as human perception. The issue of this study is to understand how citizens or city users are communicating with the urban space. The question is how people orient themselves in moving within urban space considering the semiology of orientation in urban space. People choose spontaneously or officially the points in the city to facilitate their orientation. In the city same natural or man-made elements is seen as signs giving the sense of way finding. In this study the semiology of communication studies codes established by society to produce messages consciously sent and received as signals, signs and symbols. A signal or a symbol without doing so on purpose cannot be send. The semiology of meaning works with different phenomena that are not produced purposely as messages. The building is the part of city and defining urban space quality with the semiologic properties.

The scope of this study is defined by the concept of "semiology of landmark in urban space". It is not a study of urbanism, dealing with the physical or technical structure of the city or the social, economical, administrational, cultural aspects of the city. This study is also not about urbanism dealing with sociology of urban space dealing with how the city organizes, allows, and prevents social relations. This study is try to discover how the city affects the person who experience it considering landmarks. Landmarks are one of the part of the communicative way of the city with people.

In this paper the relation between semiology of landmarks and urban space based on Konya, Turkey. Konya is special city considering city image and community identity in middle of Anatolia. Although Konya has Mevlana well-known thinker all over the world the city is not known its real properties.

Emilio Antoniol
PhD Student, IUAV University of Venice, Italy

Development of a Shading Device Efficiency Verification Method using Software Simulations

The study aims to determine a verification procedure of solar shading device efficiency in buildings. The number of formal and technical shading solutions on the market has currently no limits. However, the choice of a specific system not always guarantees the right shading effect on the facade. The first part of this work is focused on the development of a shading devices classification system. A result matrix, based on four variables (morphology, position in relation to the facade, position in relation to the vertical plane and type of movement), was defined by the characterization of some case studies. The method of shading efficiency verification was developed through the analysis of two reference buildings: the Ahmedabad Mill Owners' Building, designed by Le Corbusier and the Bologna's town hall building by MC Architects. Tridimensional models of the buildings were made using the software Ecotect (release *Autodesk Ecotect Analysis 2010*) to analyze the shading effects during the summer solstice and other significant days. The study also evaluated the solar diagrams related to glass surfaces protected by shading devices. The diagrams allow to verify the sunlight exposure time frames that represent the possibility of a local overheating effect in relation to the outside air temperature. In the tests was also used the monthly average sun exposure tool that allows to assess the value of incident solar radiation on the examined surface. The simulation was performed with and without the shading systems to analyze the reduction of direct radiation on the windows. The verification method allows to define the system shading effectiveness and to identify the time frame in which can exist an overheating problem. Furthermore, this method can also be used as a practical tool in the project phase, helping the designer to choose the right shape and orientation of the shading devices.

Kerimcan Apak
PhD Student, Politecnico Di Milano, Italy

Degradation of Historical Turkish bath Structure Relation with Historical Preventive Construction Techniques against Seismic Forces

Stone was used as structural material in historical buildings. The structural failures of stone material cause failures on structural elements such as lintels, walls, arches, vaults and domes. Degradation of stone walls can be associated with many factors that include the type of stone as well as the forces that applied to the material and used materials for combining the stones together. Mortar and ties which were made up of brick and timber were used in traditional Turkish bath structures for preventing them for the horizontal forces. Horizontal forces were especially seismic forces were the generally main reasons for the degradation of masonry wall structures.

Structural degradation of the historical masonry walls of the baths were occur mainly lack of the timber tie beams inside of the walls. In long time period timber tie beams were decayed and release the masonry structure alone. The inner tension of the masonry wall was removed and the structure had been become weak for the horizontal forces especially seismic forces.

In this study, the historical Turkish bath structures in Ottoman period from 15th century were chosen from the one seismic area for analyzing degradation of the structure relation with preventive construction techniques for the seismic forces like timber ties and linear brick pattern layouts. This case study was ruin and some parts of the structure were collapsed. The collapsed mechanism of the structures was analyzed and the reasons were listed.

The methodology of this research was started with seismic point of view of historical bath settlement. Secondly general structural qualifications of the Ottoman bath were analyzed for to put forward the behavior of the structure for the horizontal forces. Thirdly the construction details of the masonry walls were analyzed and the decayed of timber and brick ties were determined for understanding the mechanisms of the collapse parts of the case study bath structure.

Finally outputs of this research were; degradation of the bath structure with the help of collapse mechanisms in relation with the decay of the structural binding elements like timber ties and linear brick patterns layouts.

Yavuz Arat
Assistant Professor, Necmettin Erbakan University, Turkey

Analysis of Traditional Konya House Indoor Components According to Anthropometric Data; Samples of Sedirs

The aim of this research is to analyze and identify the "sedir" which takes an important place in internal construction of traditional Konya house. There is a correlation between the height and width values of "sedir", which is one of the internal fixed components of Konya houses and the anthropometric data related to Turkish people. Around this correlation, body shapes when people use the component and the anthropometric data related to these shapes are compared through "sedir" component. Postures related to the actions and anthropometric data related to these postures have been obtained from the work done. Component analyses are done by the anthropometric data of postures in relation with the actions.

The main purpose here is to use the emerging results from the analysis of the height and width values of "sedir" as one of the fixed components of Konya houses accordingly with the average data obtained from the works done to identify the anthropometric structure of Turkish people in component works of our days. It is specified accordingly with the width and height values, obtained from the research that "sedirs" in Konya houses are positioned low and therefore its relation to the ground of main space is not broken and it is adjusted with the anthropometric structure of Turkish people.

Zeynab Asgari
PhD Student, University of Strathclyde, UK
Michael P. Grant
Professor, University of Strathclyde, UK
Claire Anne Hyland
PhD Student, University of Strathclyde, UK

Sensory Architecture in Silent Vision; An Investigation through Designing Public Architectural Spaces for Visually Impaired Users

This abstract describes ongoing PhD research on how to improve the quality of architectural public spaces for visually impaired people, investigating the semiotics of architecture and environmental psychology, translating and changing the focus of architectural spaces from vision (40% of the brain is devoted to vision), to other senses such as: sound, touch, smell.

Interaction with others, way finding around the building and responses to different elements used in design are the three main categories which have enticed researchers in this field.

The main focus of the research is hearing and sound, the most important sense after vision. The project intends to investigate the quality of sound and echo in space and the way sound resonates in architectural spaces, and suggest how sound could be a useful way to guide visually impaired people, specifically how different shapes, surfaces and materials forming an architectural space can help the sound last more, and echo in different directions of the building, acting like a virtual map in the mind. Visually impaired people will have a sensory perception and may feel that they can interpret the space within the building with the mind's eye. By exploring the mental image that visually impaired people have in their brain and how they imagine the space, we can then change the mental image by trying to produce different sounds in different directions of the space. The echo can guide visually impaired people and they can walk easily in different directions, producing different images in different parts of the building, this sound will become the picture of the space in their memory.

The research method will be quantitative and qualitative; involving questionnaires and interviews with visually impaired users and local authorities such as, RNIB, Deaf Blind Scotland, and the results will be used to create public architectural spaces for visually impaired users.

Athanasios Athanasopoulos
MPhil Candidate, University of Cambridge, UK

Environmental Airport Design:
Towards a New Design and Urban Approach

"In the UK and the EU, airport practice and government policy aim to mitigate the impacts of aviation, but not at the expense of aviation growth. Sustainability should not be taken to mean a realised commitment to environmental impact reduction, but a consideration of environmental and social impacts alongside environmental and financial performance"[i].

As nodes for the transportation of goods and people, as well as the modern frontiers of a country, airports do not only play a major economic role in modern society, but also enrich a community's cultural and social cohesion and diversity. As for their impact to the natural and anthropological environment, they represent a very energy-intensive form of transport[ii], a trend with which health problems and mortality rate are already associated[iii]. Since mobility trends are not expected to lose dynamic[iv], a change in buildings' design principles and priorities, in addition to a "sensible transportation planning strategy"[v], is considered to be essential in supporting a more sustainable future. Especially since airports evolved from open fields, to shopping centres, to hybrid public-private spaces[vi], always at the environment's expense.

Built to host a variety of uses and serve diverse users' groups, large airport terminals have an operations' magnitude usually equal to that of a modern metropolis[vii]. Nevertheless, regardless of the ongoing innovation in the fields of urban theories and construction technology, transportation policies and building regulations have so far failed to fully exploit such an advancement's potential and dilute the grey zone over airport design priorities, in respect to both economic development and environmental protection, especially when the relevant project scale exceeds that of a simple building and approaches that of an entire city. The unavoidable outcomes of this difference of momentum are a less energy-efficient over-design and the commonly observed multi-interpretation and inconsistency between initial and final planning approaches among the various stakeholders involved[viii], leading consequently to a miss-identification of and inadequate provision for the majority of users' needs.

So far, a relative environment-conscious architectural approach is commonly treated as a commercial asset of added value, instead of a new perspective to guide the sustainable aviation industry's growth. Moreover, a generic plan on efficient airport design based on security regulations[ix] and market surveys has been widely adopted, providing limited innovation in the field. The distinctive and stable operation cycle pattern of such buildings, however: their complete internal enclosure and external exposure

and their predictable occupant behaviour pattern, make them ideal candidates for case studies on new materials and techniques in both environmental building design and urban planning.

Therefore, this paper is going to focus on how has airport design evolved through its history and how could it respond to contemporary environmental issues regarding urbanism and architecture, through a socio-political and building technology approach. It will investigate why and which of its aspects, such as urban development, environmental degradation, health issues, users' groups' expectations, commercial exploitation and aviation and building regulations, should and could be re-evaluated, based on the examination of a common reference framework on design efficiency and flexibility and incorporation of various construction and operation practices. Apart from an analysis of those recent developments, an investigation of any limitations and opportunities in regard to an airport's 'urban' scale, towards ensuring a sustainable future for the natural and built environment, is essential.

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Taymoore Balbaa
Assistant Professor, Ryerson University, Canada

Architecture of Arid Climates: New and Traditional Models of Bioclimatic Construction

In the face of climate change, a lack of basic resources, especially a lack of clean water, is taking its toll on human life across the arid regions of the world. Where communities have been most afflicted, global notions of linear or quantifiable "progress" have resulted in much inequality, loss of identity, and further degradation of the human and natural environment. More centralized sources of capital or governance have emphasized the importation of goods and services, creating a greater dependency on the outside, and the loss of vital skills. Yet even in the face of such challenges, afflicted communities are still able to sustain creative practice in art and construction. The rich and resilient legacy of hand-built architecture of West Africa, considered in the context of rising global temperatures, continues to contribute to the formation of local identity, and persists in providing dignified and climatically-sound shelter for the family unit. Beyond this basic obligation, a palette of natural materials is used in creating countless inspired works that broaden the expressive limits of what is readily available. Absorbed into the cycle of seasons, this mode of building has remained largely intact for centuries.

As a comparative study, this state is contrasted with current methodologies towards achieving a state of bioclimatic equilibrium. Subject to rising temperatures and decreasing capital resources, the Mediterranean Basin presents a most relevant context in which to consider a synthesis of older techniques with new realities. Specifically, this paper will examine the design of an innovative and bioclimatic school on the island of Crete (designed by the author) as a precedent towards modes of construction that are more embedded into their immediate material and cultural contexts.

Link to Crete project:
http://www.archdaily.com/317064/innovative-bioclimatic-european-school-third-prize-winning-proposal-atelier3am/

Michael Leighton Beaman
Assistant Professor, University of Texas in Austin, USA

Computational/Material Simulations

There exist a number of pedagogical approaches to considering design process in education. Many of these establish a bias towards either a systems logic or formal logic as an operative design framework. The systems-based approach investigates physical and temporal processes, while the formal-based approach advances visual, spatial and haptic explorations. Both of these have correlations to practice and theory and both rely on material actualization. What is at stake in design education today is the ability to prepare students for managing and utilizing the complex relationships between the two, and to do so increasingly by leveraging both computational and material methodologies. As educators, our pedagogical approaches to analyzing and demystifying these complexities are a crucial consideration in developing an academic course. Individual design disciplines share these concerns but each has developed unique approaches to address them.

In recent years, we have developed an interdisciplinary pedagogical model that builds a sound relationship between system and form through the incorporation of digital and physical simulation as our primary conceptual framework to studio-based education. It is in simulation (data, materials, and technology) that we find an integrated relationship between system and form already present. This latent integrated state provides a base condition for the design disciplines. This paper will examine a series of interdisciplinary pedagogical approaches carried out in architecture and landscape architecture studios which link system and form on a fundamental level. In each, the incorporation of digital technologies and computational/material explorations early in the educational career of students provides a means for understanding how system and form are connected. We will present three strategies - **System - Form, Data - Material,** and **Space - Cycle** - utilized in design education, and will posit ways of moving forward and expanding this hybrid pedagogical approach to non-design disciplines, practice and research.

Marc Belderbos
Professor, UCL LOCI, Belgium

Architecture as Inauguration of 'Das *da* sein'

To this beautiful conference of scholars around the thoughts of architecture I would like to propose a reflection on architecture itself in its immediate relationship to the 'human'.

This paper will explore a form of architecture for the human body and will simultaneously examine the exact point at which the body becomes human.

Architecture will be examined as strictly anthropo-logical and as something that is absolutely needed by humans and is even constitutive of the human as human.

The 'human' will be identified as 'the there' or as 'Das *da* sein'. First of all, in a circulation of the sense out of signification.

The human unendingly opposes to the real the affirmative interrogation of the artefacts.

The primitive artefact is architecture as a material necessity – a metonym for the stance of 'the there' i.e. the 'human'.

This contiguity provokes an operation of incorporation: 'the there' is the circulation of the sense at the moment at which the human senses make sense. We'll see there the sense before signification.

We'll see there, in the human senses making sense, the body becoming human.

This primarily consists of 'thing-ness' or dignity: in other words, the real intention of architecture.

The essential notions deployed in this exercise will be: stances, human as dis-stances and the significance of architecture.

The text also encompasses the notion that architecture, the human, emptiness and well-being are verbs, and that architecture is a thing for the body, or an 'infinition' for the body.

Nadia Bertolino
Research Fellow, University of Pavia, Italy

Proposal for a New Architectural Theory: How to Establish a Renewed Balance between Man and Nature

This is a design research about the possibility to establish new relationships between architectural shapes and nature.

It is an inner change against the traditional way to consider and design living spaces, both collective and private because it starts from a new way to read and use the structural elements of contemporary territories: infrastructures, functional overlaying, labyrinth spaces, digital technologies, etc.

In fact, if during the past it was guaranteed a nature to reach running away from the *neglected* city, today everything is city and there are no more shelters. Natural and urban landscape, in most cases, coincide so it is impossible to say where landscape starts or city ends.

Briefly mentioning the most significant historical ways in which human hand has transformed and characterized natural landscape (Machu Pichu, Amalfi Coast, Cappadocia underground settlements, Santorini Island, etc.), I will consider these experiences as cultural references because of their extraordinary equilibrium between man and nature.

We should ask why does it not happen in contemporary landscape? Is it really possible that our system is a totally not balanced one?

Fighting the trivial relationship between landscape and natural element of contemporary design processes, it is necessary to establish a new architectural theory, discovering a new abstraction within a relationship that doesn't deny the existence of nature nor architecture, but not putting each other in hierarchical condition. It happens in some projects by Wang Shu (Ningbo Tengtou Pavilion, Shanghai Expo 2010) or by Junya Ishigami (Japan National Pavilion, Venice Biennale 2008): the first focus his design research on working on section, the second most on the intersections in plan between natural and artificial elements.

This could lead to a new form of architectural aggregation where soft spaces arising from this condition could be *naturally* connected each other, goes beyond the traditional metropolis concept.

Asu Besgen
Associate Professor, Karadeniz Technical University, Turkey
Solen Koseoglu
Research Assistant, Karadeniz Technical University, Turkey

Post Modern Traces in Turkish Architecture in 1900s

"Every age has its own carriage, its expression, its gestures", Charles Baudelaire.

It is known those National Architectural periods of Turkey since the 1920s are shaped by referring to Turkish-Seljuk-Ottoman authentic themes with socio-cultural conditions of such periods. In this sense, it is challenging that First and Second National Architectural movements in Turkey present parallel features with the postmodernist movement in world architecture. Within this context, proving interpretability of National Architecture periods as a post-modern movement consists the problem of the study.

The aim of the study is to present that the formation of architectural style in Turkey is not similar with the progressing process in the world and effects in the 1900s is independent from world architecture effects. This study will discuss the process called Postmodernism after Modernism in the world is not applicable to Turkish architecture and that postmodern traces are followed in Turkey before the world architecture.

Del Espino Hidalgo Blanca
Researcher, University of Seville, Spain
M Teresa Perez Cano
Professor, University of Seville, Spain
Ramila Arjona Rocio
Researcher, University of Seville, Spain

Historic Cities Conservation Throughout Cultural Heritage Laws: Andalusian Historic Areas

Andalusia, the most southerly region in Spain, is distinguished by a rich cultural heritage, which is particularly well defined by the quantity and variety of protected Historic Areas containing. From 1933 to now, four different laws (national firstly, regional lately) and a large number of ordinances, decrees and regulations have determined the definition and conditions under which historical settlements have been declared.

This paper aims to set up an interdisciplinary perspective on the protection of cultural and historical heritage, focusing on the 133 settlements declared as Historic Areas by the Spanish and Regional laws in Andalusia by a team formed by urban heritage experts, architects and lawyers. In order to reach this purpose, a deep research has been carried out, including the following stages:

- Historic Areas characters depending on the law under they were declared.
- Size, location and elevation of the cities whose Historic Areas have been declared.
- Historic Areas perimeter and shape as determined in their declaration documents, including or not buffer zones.
- Values detected and mentioned by the declaration documents of the Historic Areas, observing its variation in time and through the different laws under they were declared.

In conclusion, this research has shown that historical cities protection is closely to the laws which constitute a theoretical and practical framework to the values detected and the features that make an area worthy of the highest level of cultural protection, as well as determine the shape and conditions under they are declared, which certainly will define their future conservation.

Francois Blanciak
Lecturer, University of Sydney, Australia

Revolutionary Objects: Pure Forms and Disorder in the Work of Ivan Leonidov

The proposed paper aims to analyze compositional strategies of Russian avant-garde architecture from the 1920s and beginning of the 1930s through the study of the work of Ivan Leonidov (1902-1959), one of the leading and most prolific architects of this movement. The paper locates Leonidov's work within its predominant architectural context, and interprets his work not only as a reaction against the domineering principles of Classicism, but as an evolution and selective continuation of key concepts directly translated from architectural academism. The issues of the use of pure forms—a radical stance at odds with the commonly accepted morphologies of that era—associated with the principles of displaced symmetry, or disorder, are closely looked at and evaluated against both their architectural and political values within the context of post-revolutionary Russia. It is argued that the characteristic of weightlessness in his large-scale planning proposals is revelatory of a particular desire to invade space with political presence, thus demanding to reconsider the relation between space and architectural objects. Parallels are also drawn from French Revolutionary architecture—and with the work of Claude-Nicolas Ledoux in particular—whose search for purity and autonomy in architectural morphology preceded Soviet Architecture. As Leonidov's legacy mainly consists of drawings of buildings that never got built, his influence can often be felt in the work of other architects which until today have drawn formal elements and compositional strategies from his relatively vast volume of unbuilt work. For this reason, the paper also deciphers and examines the presence of his oeuvre within the work of contemporary architects.

Renato Bocchi
Professor, University Iuav of Venezia, Italy

The Belly of Architecture

A key-word shared by art, architecture and landscape is the word *space.*

The privileged interest for space outlines a distance in respect of the objectuality of architecture and highlights on the contrary its topological, experiencial, relational and use items.

Space –among things – is essentially *logos*, relation, connection; it inheres process and kinetics, referring to *time* and *movement.*

This *architecture of relations* marks the relationship with ground, with site, with urban and environmental contexts, with the living experience of an user: i.e. linked to *use,* in a wider sense than "function".

An investigation on the evolution of contemporary art is enlightening these subjects and puts it in strict relationship with architecture and landscape.

Besides it is important to investigate those artistic experiences which work on sensorial items, linked to light, sound, colour, tactility, motility, as the parallel cinema research, clearly connected to all the spatial and architectural researches influenced by the phenomenology of perception.

Certainly the reflection on haptic realm in art, architecture and landscape is an important chapter of the contemporary conception of being in a space.

It is important to open a dialogue among different disciplinary approaches about the definition of "space inside" and "space in-between" as a fundamental matrix of the present attention to the interpretation of contemporary architecture and landscape.

The paper investigates these issues analysing works of artists, architects and landscapers in the contemporary framework.

Khosrow Bozorgi
Professor, The University of Oklahoma, USA

The Influence of Social Customs, Architectural principles, and Environmental Factors

This paper will discuss the work of America's foremost designers of high quality traditional homes which has become the most characteristic features of the traditional architectural landscape environment of Philadelphia. Walter Mellor, Arthur Meigs and George Howe, who masterfully interpreted the traditional domestic European styles for a number of suburban and rural country house estates.

The natural charm of the landscape in Chestnut Hill and the irregular picturesque silhouette of its architecture, built from local material, together create an organic cohesiveness. With their profound understanding of the site, respect for the nature of materials and the application of asymmetrical discipline, the architects generated plan compositions that contributed to this harmonious whole.

The social customs and traditions, the architectural principles and the circumstantial environmental factors which guided architects in America during 1920s were shared by a wide segment of society. Yet these Philadelphia estates differ markedly from contemporary houses in Newport, on Long island and even Main Line Philadelphia. These differences have grown out of the varying emphasis or interpretations given to the many factors that contributed to the decisions made by owners and architects in the process of design. A unique combination of factors has produced an unusual "type" of houses in the Philadelphia examples. Though countless ideas and cultural traditions have made decisive contributions to the end result of a recognizable Philadelphia country house, perhaps most powerful is the architectural principle of unity which conceives the house and garden as one rather than as a marriage, happy or unhappy, of two discrete elements. Unquestionably there are many historical examples from Rome and Paris where site limitations have forced a unity of concept similar to those in Philadelphia. Yet even in these cases additional factors or cultural biases have produced designs which bear no resemblance to the Philadelphia examples.

Pablo Bris
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Houses Built from Accommodating Cabins

The current economic European crisis has meant, particularly in Spain, the nearly paralysis of the new building works. It is widely thought that this grave crisis does not have a character of temporality but will mean in future an irreversible change in the Spanish construction model, based to date almost exclusively on the brick.

This project comes in response to the material needs arisen from this crisis: The need for decent housing at an affordable price and the need for adapting construction to the limits imposed by the crisis –by using constructive systems of assembly an dry joint partly industrialized (against the previous traditional model based on different trades) and recycled materials.

It is part of a larger research within the line "Modular Architecture" developed by the Research Group "Design and Industrial Production", belonging to the Technical University of Madrid, and has the objective of offering to everyone through Internet the plans, resources and other technical details required to build a house oneself.

The houses are built using recycled accommodating cabins (prefabricated modules usually used as provisional constructions –temporary offices or toilets- in conventional building works) which besides being currently very cheap, has the advantages of fulfilling the most restrictive Spanish regulation (CTE) with regard to higrothermal parameters and of having a framing system formed by light sandwich panels that make them easily adaptable to new uses.

In the resulting houses it will be impossible to notice the use of the accommodating cabins provided that the prefabricated modules meet two requirements: Firstly to change the way the facade works (by going from a monolayer facade to a ventilated one) and secondly, to change the way the roof works (by going from one being flat and hot to another pitched and ventilated).

Barbara Buehler
Associate, Aesthetic Realism Foundation, USA

Jane Jacobs - The Fight in Every Person between Knowing and Managing

Jane Jacobs, noted urbanologist and author of the definitive 1961 book The Death and Life of Great American Cities, has been seen as the first successful critic of "urban renewal", the US government's planning policy of the 1950s and 60s, and the first noted proponent of neighborhood scale redevelopment. The best of new urbanism is her courageous legacy.

This paper will show that it was Jacob's direct desire to understand what people in many New York City neighborhoods felt that made her efforts successful in the face of enormous opposition. Her importance and lasting effect is explained in essence in these sentences by Eli Siegel (1902-1978), poet, critic and founder of the education Aesthetic Realism (www.AestheticRealism.org <http://www.aestheticrealism.org/>): "It is...easy pompously to impose what we think is their desire on other people....To be kind, we must have the imagination arising from the knowledge of feelings had by others." I will look specifically at 1) her criticism of large building types, set back from sidewalks, destroying neighborhood scale and context, having people feel adrift, closed off from shops and neighbors they once relied on, and 2) her noted 1968 opposition to the Lower Manhattan Expressway, culminating in its defeat, saving what is today a hugely popular and architecturally unparalleled area of Manhattan called SoHo.

Jane Jacobs illustrates the importance and practicality of good will as explained by Aesthetic Realism--both in public policy and in our personal thoughts and actions. Good will, Mr. Siegel explained, is "the desire to have something else stronger and more beautiful because this desire makes oneself stronger and more beautiful."

Carlos Cabral Machado
Teacher, University of Porto (FAUP), Portugal

Álvaro Siza and the Fragmented City

In Álvaro Siza's work between 1970 and 1980 the presence of the ruin results from of his quest for a new approach to city design. He was looking for a methodology that included city's past and its remains as important starting point to embrace reality in its broadest sense. Ruins found in the place were preserved as important references for the project to come. Proposed new forms were sometimes fragmented, with the broken line used to relate or to bring together different aspects of the same reality. But there were also invented ruins, intended as such and built as mediators between the pre-existing and the new.

Alvar Aalto and Fernando Távora, both important in Siza's formation, had previously treated the same theme – the Muuratsalo experimental house by Aalto and the Quinta da Conceição park in Matosinhos by Távora are good examples of it. They paved the way to a different understanding of city's spaces and forms, influencing Siza's practice as a mature architect.

Siza's design process is also related with that of Aldo Rossi who always spoke of the city distinguished by its various parts, studied and designed as such. The understanding of the city as a whole must come from the multiple inter-relations of different singularities, all of them converging to a broadest picture with a strong personality and innumerable facets.

We propose to explore this theme in Siza's architecture between 1970 and 1980, relating it both to the work of Aalto and Távora, but also to Rossi's theoretical and designed proposals. The city by parts, studied from the particular to the general, also explains, perhaps, the fascination with the fragment and the collage, thus allowing us to interpret Siza's sketches where broken angels and architectural fragments dialogue and interact.

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Out of Rule

The game in its broadest sense is an amusing way to spend time in every field. But the thing that breaks the amusement is the certain, general rules of the game against rapidly changing world. That is why the pressure on the individuals can be felt. They are independent from each others in a metropolis, due to reach the minimum values of life to meet their basic needs from the time that they prefer to live in fixed rules of ordinary games which are vicious.

Todays higher the population number brings less interaction between individual and individual, individual and nature, individual and metropolis. The habits of people are organized by their every day experiments, supported by ordinary mono-functional devices in urban scale and their habits turn into their rule in a roundabout ways. The term, -functional, represents the ability of materials surprising people who use them. Then, the ordinary life is over floated by rigged game. The frame of ordinary life is broken.

Breaking the routines associate with sharpening and the strongest changing on the each personal rule is achieved by the radical changing on the urban context. The question is where this radical changing comes to place in metropolis like Istanbul? Through the analysis and observations, discussed in article, there is no special place but there is a dominant character helping to create a new game which is related to urban furniture.

The recommendations, in the article, are categorized as sub-headings for each of the scenarios developed according to vertical and horizontal urban furniture and their material quality which is specified as solid, soft and smooth but totally opposite usage what we are used to. Finally, daily used urban furniture creates it selves illimitably according to individuals' perception and The Game never stops!

Giulia Campanini
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Seismic Vulnerability of Building Heritage in Aggregate, *Civita di Bagnoregio* Study Case

Main goal of the research is to discuss a multidisciplinary approach to the study of the seismic vulnerability of the building heritage in aggregate.

The knowledge, gained as a result of natural disaster, has led, over time, to investigate aspects of prevention of building heritage in aggregate, highlighting the different issues of recognition historical masonry structures and their complexity, the analytical techniques and intervention methods. Recognizing the need to confront these facts, it is proposed to build a path to the interdisciplinary character relating the main point of the debate, by encrypting steps, reports, studies, criticality. After this moment is measured the importance of individual disciplines to arrive at establishment of an innovative model of analysis and evaluation of seismic vulnerability of buildings in the aggregate.

The research aim to define an interpretative model of the complex structural behavior, identifying the sensibility factor of the system in relation to different approach that are developed, taking like first reference the Antonino Giuffrè contribute. His seismic vulnerability approach, generated on Palermo and Ortigia studies, is based on juxtaposing different kind of lectures about building heritage such as typological analysis, archives studies, material and constructive deepening.

Civita di Bagnoregio, the etruschian village in the Alta Tuscia region, with its seismic history that led the village in a state of abandonment (not only of inhabitant but also of normative control), is the study case for a real application of these consideration and, at the same time, for an outline of a seismic vulnerability methods for the existing building heritage. Some considerations are developed looking to the archive information, in comparison with the technological survey and the valuation of the material state of conservation to find the characterizing aspects of the seismic vulnerability analysis.

Luciano Cardellicchio
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A Method for Contemporary Archaeology: The New Hertziana Library by Juan Navarro Baldeweg

In 1995 the Max Planck Institute, Bibliotheca Hertziana in Rome launched an international design competition asking for a renovation project of the famous library built in the area of former garden of Palazzo Zuccari, close to Spanish Steps. The new building should have replaced the old one with the exemption of the historical façade along Via Sistina and Via Gregoriana in order to increase the book capacity for a long term and insure new high security standards against danger of fire. The competition was won by the Spanish architect Juan Navarro Baldeweg.

The formulation of the structural hypothesis for the new Hertziana library, developed based on archaeological premises, represented the most exciting chapter of the whole process of demolition of the old library and the construction of the new one.

In the 1967 archaeological remains were found that belonged to part of the Gardens of Lucullus, which was supposed exist below all the entire area of the library nine meters below the ground.

Before the development of the architectural project it was clear that the building would have had a non-standard solution for its structural scheme, in order to preserve archaeological remains as well as avoid the construction of the building itself.

Studies, samples, video inspections were done in order to prepare a project for the foundations of the library that would not damage plausibly existing archaeological remains. After different hypotheses, the engineers were asked to supply a scheme that would avoid any foundation work across the entire area on which the new library would be built. According to this prerequisite, the entire building it is supported by a prepressed concrete slab three meters high that rests just on two very slender strips of land along outward side of the old facades, with a free span of twenty-six meters.

Lineu Castello
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The Fictional Environment

The threshold of early twenty-first century poses to urban-architectural scholarship a peculiar environmental situation: the world we live in is an urbanised one. Moreover, what we called 'city' now has numerous nicknames such as mega-cities, global cities, fractured cities, edge cities, regional cities and even meta-real cities (as we do in our own research work). However, despite the numerous narratives employed to depict a contemporary urban environment, most of them fail to enunciate satisfactorily the patterns that best characterize a city nowadays. In Modernist times, the expression 'functional city' proved quite illustrative, but today, a suitable depiction of a city will need to include a descriptor linking the idea of the urban environment to some fantastic or imaginary element; in other words, connoting to the idea of a 'fictional environment'. This is shown through the creation of invented places – conceived through placemaking and placemarketing practices – morphed in diverse layouts: shopping malls, revamped historical settings, sports complexes, integrated museums, hybrid compounds, multiplex cinemas. They represent the influence of actual society cultural behaviours on the shaping of the environment, and, as such, make an intriguing topic of investigation on environmental research.

This paper intends to elaborate on that assumption because it is its belief that cities of present contemporaneity are inextricably associated to odd settings. In other words, to meta-realities that transcends daily reality. Methodologically, the paper will deepen on the study of iconic buildings – past, present, and future – since they are representative of a new urban landscape that translates new urban cultures associated to new urban design operations. Built iconic places attributed to 'starchitects' will be examined, focusing primarily on their ability to create new places of urbanity. Some specimens, which constitute evocative portrayal of fictional hyper-realities in today's cities, have already been tentatively designated. They include examples of the recent past (e.g. Sydney's Opera); present (e.g. Bilbao's Guggenheim); and future (Iberê Camargo Museum, in Porto Alegre, Brazil).

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France

Solar Architecture and Energy Policies in Europe during the Petrol Crisis

In 1973, the first oil crisis engenders in the European countries and in the United States an energy policy turned to energy savings. The governments set up new public institutions asked to develop programs of study and experiment to develop the use of the solar energy in the building, as well as a new legislation to reduce the energy consumption of this sector. They take back the first works on the subject and work in association with the architects, research laboratories and the industrialists who had developed them.

The architects develop a panel of forms and processes integrating the systems of thermal passive and active solar heatings into the architectural design of buildings. They have the hope to develop new architecture, in break with the international style and the modern movement.

In Europe, the European Economic Community creates the program "Monitor" and competitions of architecture. It presents the results in publications as examples of application, to favor the larger-scale distribution of the solar architecture.

The United States are the leader of the solar energy during this period, They incite strongly the industrialists to invest in the solar energy, so committing the running to the innovation with the European countries. The solar energy becomes an expanding branch of industry at the national and international level. Conventions and programs of scientific cooperations make a commitment between solar powers and tropical countries. In addition, international conferences gather the countries to exchange on the subject and communicate the results of the solar experiments.

We observe during 1970s an importing craze for the solar energy which marks the architectural design. But from the beginning of 1980s, the oil crisis is reduced and energy policies evolve. The solar programs are abandoned, engendering a crisis of the solar sector.

Arthur Chen
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Maneaba: The Impact of Climate Change on the Heritage Conservation in Kiribati

The impact of climate change on the livelihood of Kiribati is evident. The rise of sea levels has submerged three islands in the territory of Kiribati and caused the government to contemplate that relocating the entire population to one of Fiji's islands could be a viable solution to the imminent problems of sunken islands. The Republic of Kiribati consists of 33 coral islands approximately located at the intersection of the International Date Line and the Equator. The efforts of relocating people might be more technically feasible than moving the tangible sites and structures of cultural heritage.

The paper intends to present the current tasks of conservation to mitigate the damages caused by the rise of sea levels. A pilot project was launched to survey the cultural sites and structures for establishing a database of cultural heritage in Kiribati. The field survey includes oral history, locations, mythology and belief associated with the significances of places and buildings. The significance of "maneaba" is identified as the best representation of cultural heritage, which have been documented and assessed for immediate conservation work.

The role of maneaba in everyday life includes being a sacred place, ancestral spirit house, community house, social function, school, crafts workshop, guest house, and collective memory. Maneaba is designed and supervised *in situ* by the master builder who learns the trade through apprenticeship and practices. The tradition of construction process has been carried out by the whole village's participation in less than 8 weeks. The building materials are all from the local resources, such as coral stones, pandanus and coconut trees. The pilot project of survey has recognized the importance of three maneaba in Tarawa Island as the exemplars of building type.

1. *Moan Benebene* was built in 1979. It is in the village of Nuatabu, in North Tarawa, which has a population of 200 people.
2. *Eutan Karawa* was built in 2004. It locates in the village of Buariki, on North Tarawa. This is the largest maneaba in Tarawa Island.
3. *Tokanuean Auriaria* was built in 1996. It is in Eita village, on South Tarawa. It is the maneaba that British royalty visits when they arrive at Tarawa Island.

Michele Chiuini
Professor, Ball State University, USA
Walter Grondzik
Professor, Ball State University, USA
Mark McGinley
Professor, Ball State University, USA

The American Solar Home: Typology and Technology

Rising concerns about energy and climate change are influencing architectural design at a fundamental level, both in terms of design principles and of construction technologies. Governmental policies in developed countries, including the USA, aimed at reducing fossil fuel consumption have included incentives for solar energy in residential buildings. An important initiative in this field has been the Solar Decathlon competition, organized by the U.S. Department of Energy. Through the lens of a 2013 Solar Decathlon entry, this paper discusses the changes in the architecture of the American single-family house when solar energy is used as the primary energy source.

The typologies of Solar Decathlon prototypes are influenced by the use of photovoltaic panels on the roof and by the prefabrication systems necessary to transport the prototypes to the competition site. The combination of these technologies (solar panels and prefabrication), makes the house suitable to housing reconstruction after natural disasters, which is the objective addressed by our team.

The design strategy of our prototype is to maximize the effectiveness of the PV array while keeping the costs comparatively low in the construction of the envelope and in the choice of the mechanical systems. This result can be obtained by combining a passive solar design approach with a roof form that can integrate a large array of PVs at an angle designed to optimize the annual electricity output. The building system allows a multiplicity of one- and two-story house types suitable for suburban or urban infill lots, and provides a level of structural strength and thermal insulation higher than normal site-built houses.

The resulting design, to be built in spring 2013, will be a net-zero house, significantly more affordable than the typical Solar Decathlon house, which is a fundamental condition if these houses are to have an impact in the housing market.

Domenico Chizzoniti
Assistant Professor, Politecnico of Milano, Italy

Montage and Composition. The Conception of Architectural Space

This paper tries to connect architectural theory with the design process by exploring some underlying patterns of space organization in architecture: *"To compose is to bring together various things to make one."* (E.N. Rogers (1958), *Experience of architecture*, Einaudi, Torino). When we talk about "architectural composition" we refer to the combination and the union of various elements, establishing relationships between each other giving rise to a single complex system.

In architecture, the practice of composing consists mainly in the union of more figures. We call this process "montage". These figures are chosen as the components of this creative process not only because of their form, or simply referring to their geometry, but also for their capacity to induce a particular behavior of use. A montage generated by the juxtaposition of several figures gives rise to a synthesis.

Like in film art or in painting, in music and in literature or poetry etc., a montage is a process, which follows a strict logic concerning the choice of the single elements. However, to combine them together, the montage does not exclude the option of creativity and artistic intuition.

The result is a transfigured composition that takes the shape of a project, comparable to the screenplay development process, in which the general idea of a movie is acquired from the individual characters and interpretation of the actors. The creative act of composition lies to certain constants and free variables. These are able to transform the montage in something else that does not follow the original appearance and the prototype's lineaments. The key of this transformation is the critic and creative interpretation of individual elements arranged together. The dialectical conflict and the dynamism that generates a completely new image are the aspects that characterize the technique of montage.

This technique is recognizable in the work of some international architects, such as Frank Gehry, John Hejduk, Philip Johnson and Robert Venturi.

Laura Ciammitti
PhD Student, University of L'Aquila, Italy

Ancient Material and Steel: Project Strategies on the Content and the Container of the Museums in the Period of the Italian Reconstruction

Development and industrial organization have generated a strong division of knowledge, turned to specialized aspects rather than the complex and the complexity of the problems. The design craft, which ensures the collective sharing of building, is replaced by the mass production that accentuates the gap between design and technology. Yet, the machine civilization has allowed the diffusion of materials, such as steel, with enviable technical performance, a fortiori if it's used in the recovery of cultural heritage, for beeing easy to assemble in the constructive site and for the relation between lightness and structural strenght which ensures the possibility to work on the existing heritage without making substantial increases of loads on the fabric already built.

The use of steel technology in the rehabilitation project had different outcomes over the time, reaching the first synthesis in the Italian experiments of the 50s and 60s: the design of the individual "pieces" of construction, then produced in factory, allows the architects to project the elements as unicuum. A design based on continuous cross-references between the "whole" and the "part", carefully controlled in terms of coherence and compatibility both internal and external, let to plan new architectures, employing strategies that range from the formal re-definition of existing volumes to the insertion of fragments as separate item, able to set a dialectical relationship between the old heritage and the new one. The present research wants to explore the first important moment for legitimize steel as a material able to transform the existing assets, giving to it a new identity, recognizable by the community as a product of his culture. The contribution presents an analysis of Italian projects in order to provide a tool for the validation of requalification processes for the cultural heritage.

Alessandro Dalla Caneva
Professor, University of Padua, Italy

Willem Marinus Dudok in Hilversum.
The Primary Role of Schools in the Construction of Urban Space. Idea and Method

The shape of the Dutch city of Hilversum is the result of the decisions on urban planning made in the 20's and 30's by architect Willem Marinus Dudok.

The foreshadowing of the future through the plan does not appear as the result of a naive revival of the forms of the past. Much less the claims of novelty appear to resolve in the radicalism of forms that have no link with the tradition. Rather, the form seems to suggest a third alternative: the conciliatory option which refers to the ability of the project to interpret the vital energies of the tradition in a new and informal way.

We recognize the reference to this tradition in the most authentic experience of the medieval city as well as in the idea of the classical European city, assimilated through the work of the architect Hendrik Petrus Berlage.

In order to promote a controlled growth of the city, the plan moves within an operative method that, taking into account the needs of the community, is respectful of the environmental and historical values of the city. It is true that in the logic of a highly flexible programmatic planning, public buildings, primary urban facts in the composition of the city, play a decisive role in interpreting the planning of the residential neighborhoods. In this key we can interpret many school buildings that Dudok realized for the city of Hilversum: the discovery of an "invention of design" that measures, from time to time, the ability of the project to build urban scenarios that are appropriate for the life of the community. So, the project is no longer a reference to a well-established typological form, inadequate to express social changes, but becomes an interpretation of ancient yet valid forms that prefigure the city of its time.

Stefan Dragos Dascalu
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Teodora Balan
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The Phalanstery Paradigm.
Paradoxes of Architectural Determinism

Collective housing has been around since the dawn of man and has been a part of our cities as long as cities have existed. But it wasn't until the 19th century that collective housing became a tool for social change. It was then that it was invested with the role of bringing a new society into reality, and its prime example is the phalanstere, the People's Palace conceived by social theorists such as Robert Owen, Charles Fourier or Victor Considerant. A new paradigm of collective housing was created and this paradigm continued to obsess architects in particular for generations to come. Le Corbusier and his Unite d'Habitation, Moisei Ginzburg and Ignati Milinis and their Narkomfin Building are based on the phalanstery paradigm with the explicit desire of changing the world through architecture. The paradigm still lives on in different forms in the collective housing projects of today. Vicente Guallart was the curator of the Socipolis project at the Valencia Biennale in 2003, a project which tried to propose new ways of living in common in our information society.

This type of architectural thinking has been characterized by Maurice Broady, in his 1966 essay Social Theory in Architectural Design, as architectural determinism. „It asserts that architectural design has a direct and determinate effect on the way people behave. It implies a one-way process in which the physical environment is the independent, and human behavior the dependent variable. It suggests that those human beings for whom architects and planners create their design are simply molded by the environment which is provided for them". Although proven to be a form of reductionism and that it can never achieve its goals, architects have still been attracted to this way of conceiving their buildings. This article will try to answer the question: what if it worked? What type of society would the architects create if their projects could really bring their intended changes? What would society be like if everything that the architects trust their collective housing projects to achieve would really be achieved?

Frank Delmulle
Architect, Campus Sint-Lucas Gent, Belgium

The Obviousness of Use and Perception in Architecture

"Thinking and working.on design of dense urban communities for tomorrow with a new social order'. Prospectivism based on research with Tissergate as base, researchmodel, studyobject . Prospectivism is not an utopia, it is not predicting the future, it is a research and development of potentials, creates perspectives.

In the southern Marocco at the border of the desert, for centuries fortified villages called "ksour" have been built at the length of the Drâ a river. Ksour are impressive constructions made of dried clay.

The ksar Tissergate, with its rural roots, was a flawless holistic community with an unseen social capital. Both on the level of urban design and architecture the ksar represents a very dense and sustainable way of building, fully coherent in its social, cultural, agronomical, architectural and urban design aspects.

The ksar is a composition of light and darkness, of watching and being watched, of sound and silence, a psychical metabolism. The matrix is based on a necessity that caracterizes the obviousness of the practical value and the perception of the environment.

The background of the research is the genesis of Tissergate compared with this of two own projects: BsS - Gent and Avalon -Waregem.

The tool of the research is "interface", in fact a term that points the intermediary between man and machine, but is also applicable to a drawing. Through means of simplification it illustrates the relationship between man and his spatial environment.

This projects have an inextricable bond between the "what" and "why" of architecture and the development of a society.

Such communities are along an alternative tot the aging of the population and can be a key to the culture of the future care, the care for young babies, the education for adolescents, elderly care, care for the unemployed. These can lead an evolution in our current forced passive, unsustainable, treatment systems and it can offer a solution to obvious active care structures of the generation Pact.

Where elderly now are dumped in nursing homes, rest homes, residential care centers, they can still play, in such transgenerative communities, which are well designed and well organized, an important role.

Ursula de Jong
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A City and its Cathedral: St Patrick's Cathedral Melbourne, Victoria, Australia

During the 1850s, England and France were the leading centres of debate over the Gothic Revival. As Barry Bergdoll argues, the issues that loomed large were at once architectural and political: stylistic eclecticism versus national purity, invention versus tradition, nationalism versus cosmopolitanism, and the challenge of new building programs and new materials to the historicist logic of the Gothic Revival position. While a number of these issues concerned the architect William Wardell and his client, the Catholic Diocese of Melbourne in 1858, there were other considerations dictated by local circumstances and shifts in emphasis in the New World at the antipodes: significantly national purity was superseded by the symbolism of the Gothic language of architecture that was seen to be capable of transcending the national.

The New World perhaps echoing Didron, demanded of the past all it could offer the present and especially the future: a Gothic cathedral was deemed a fitting carrier of the principles, morals, beliefs and spirit of a Christian civilisation. So while the dream of a Gothic Cathedral evaded Reichensperger in Germany and Didron in France, Wardell in Australia was to see his Gothic Cathedrals of St Patrick's Melbourne, and St Mary's Sydney, substantially realised in his lifetime. This paper critically examines the intersecting histories and values which are embedded in the design and fabric of St Patrick's in the context of the antipodean city of Melbourne.

Santina Di Salvo
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Cultural Content of Lighting for the Discovery of Archaeological Heritage

The purpose of this paper is to demonstrate that artificial light can be an essential tool for the correct appreciation of the historical value and memory of cultural heritage, highlighting the cultural content of archaeological sites. The report examines how, in many cases, artificial lighting outlines such as finding an "impalpable material" which helps to discover and enhance the ancient contexts. In general, it was demonstrated that, combining innovative technologies, light can be used to change the world, to shape cities, as well as architecture and space in general. There is the possibility to obtain a recovery of memory and identity of a city, in order to achieve efficiency and effectiveness of the results. Starting with an overview of experimental research methodology it is possible to define and improve the ancient built environment. In effect, with the right artificial lighting it is possible to bring history to life, highlighting the significance of fragments in compliance of the surrounding, to signal original architectural functions and superimpositions of structures produced in different historical phases.

Therefore, the paper presents the study of a sample of international case studies in Mediterranean area, seen in their historical, archaeological and museological aspects. The emphasis is on what should be the most effective lighting system for the monumental and archaeological sites, one respecting the ruins and the authenticity of the site, at the same time bringing out their architectural, historical and symbolic significance. Light can be a challenging task for museum professionals, but can also cause damage to heritage materials if used in an uncontrolled way and this study has been based on an interdisciplinary approach. Nowadays, we are aware that there is a greater interest in disseminating the knowledge derived from cultural heritage and transmitting these values to a non-specialist audience.

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Didactic Evaluation of the Notion of Revelation in the Self-Critical Reflection on the Plastic-Conceptual Decision of an Architecture Student

The aim of the author's participation in the Conference is to point to several evaluation levels of the auto-critical expression of a student of architecture in the context of *potential space*[1].

The interaction of creative thoughts and readiness for the conceptual leap

- Simultaneous interest in positive and negative personal argumentation
- Error as a transitional *Object* in the experimental sensitization of the professional identity
- Skill of analytical and critical debate with one or more subjects
- Acceptance and support of the environment of *the difference and otherness*

The notion of conceptual Revelation in isolated (fragmented) thought process through the play of more or less variable facts is the main trigger for displacing the architecture student from his/her environment in order to fill up the "empty space" in the predetermined creative riddle of non-standard expectations[2].

Enabling the architecture student to build up on his/her own the communicational *subject/object* and *subject/subject* relations is aimed at expanding the conceptual *data base* of each individual student, as well as of the group of students as a whole, striving towards the conceptual building up of the simulated potential space of a higher level, for the future relation of the type *object/subjects*.

Although the conceptual – research process necessarily has a given beginning, as well as the given ending, it may be questioned at any stage of the plastic research, since it is interwoven with the conceptual dilemmas of the parallel, or any other, time of personal or collective nature. From the point of view of the self-critical results achieved, there remains the open question of the cyclical evaluation of the decision conceived, due to the specific manner and nature of its decoding, which tends to make the original concept secondary.

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[1] Winnikott Donald, *Life and Work*, Cambridge, Perseus Publishing, 2003
[2] Academic subject: *Plastic expression* (first and third year undergraduate level, 4 hrs/week)

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A Methodology Attempt to Re-thinking Architecture: Rhetoric Reading

Meaning and re-reading studies are on the agenda of architecture like lots of disciplines' agenda. Besides meaning charges of the background, re-reading attempts contain reconstruction of the past with different perspectives and comments. Because the state of being or not being for architecture thinking established on the "past" problematic or discourse in exactly. Beyond its own internal problems, architecture deals with the concepts and issues which are gathered from other disciplines. Approaching with naming architecture as a textual representation; main problem area of this research topic is to display the ideas on architecture by means of textual language, and may expose it with the methodology of rhetoric reading.

The paper's aim and content intends to discuss the canons of rhetoric as a relation form of historical discourse production in architecture practice. As a new saying and comprehension dynamic, intersection feature of methodology attempt will touch on the role of rhetoric in direction with aim and content.

Rhetoric which lived its golden age in the Renaissance and classical Antiquity is defined with its dominant meaning as "an art which has persuasion force". In historical process, efficient talking features of rhetoric are described primarily, thinking about style and various canons are determined with different researches. So the five canons of rhetoric (Invention, Style, Arrangement, Memory and Delivery) are taken up as phases of methodology fiction. In this study, it will be revived that how make a re-reading and explain the meaning.

Consequently, this paper will try to explain the result of changing meaning and discourse style via "rhetoric reading" that is a methodology attempt, how narrations get content and how theory which obtains historical and theoretical side in architecture uses its own "rhetoric" methodology.

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Sustainable Architecture in Rapidly Developing Gulf Cities: A Search for Identity

Rapid urbanization in Gulf cities has resulted in reducing the link between built environments and urban identities. However, in the last decade increased awareness towards sustainability, culture and identity have become drivers to rethink urban strategies. Public pressure has fostered policies on environmental and sustainable guidelines to re-shape architecture and urban fabrics. These experiences are evident in rapidly evolving modern Arab cities such as Abu Dhabi and Dubai. Forms and fragments of Arab/Islamic architectural vocabularies are re-envisioned on contemporary buildings. For example perforated screens as enveloping skins have become more visible as actors in redefining building identity. Traditionally stone carved screens-*Jali(s)* and wooden *mashrabiyya(s)* have been used to control entry of light and glare in buildings around the Islamic world. Their designs have become iconic references to collective identities. Projects such as the Desert Louvre in Abu Dhabi highlight links to traditional forms via the dominance of narrow winding pathways under the penumbra of a perforated dome. The emerging cultural district in Saadiyat Islands in Abu Dhabi, through the design of cultural icons and institutions such as the Desert Louvre by Jean Nouvel, Abu Dhabi Guggenheim by Frank Gehry, and Sheikh Zayed National Museum by Foster & Partners, set examples of reinterpreting traditional forms within contemporary contexts. Innovative styles and trends in architectural history have emerged from, movements and events that changed their character over time, which is much needed today to create sustainable designs. International cultural institutions in Abu Dhabi and Dubai through their interpretations of heritage represent a rich field of exploration for the study of new forms and fragments of tradition. They influence artistic, contextual, technical backgrounds and local taste beyond the scope of museums to a broader spectrum in the city. This paper addresses newly emerging architectural forms in Abu Dhabi and Dubai and their interpretation of perforated *mashrabiyya* screens/ *Brise-Soleil* on contemporary facades in Abu Dhabi, and their role as icons of cultural identity and sustainable design.

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Thai Concept of Forms:
A Case Study of the Ordination Hall 'Sim' or 'Ubosot' through Platoian Analysis

Hutan or Mural is used for the decorative "Sim" or "Ubosot" which is the valuable cultural arts of the northeast region of Thailand, also known as I-san. All has the uniquely different from the murals in the other regions which popular religious literature is such as the story of the Buddha, Tri Phum and local property literary. This paper is the analysis of Thai concept of Forms inspired by Sim through Platoian's theory of Forms. After studying inductive reasoning from literatures, phenomena, and the interpretation of religious space manipulation, the essential form is only as it was a mirror-image of a sensible thing. Plato's theory of representations also elaborates by taking the perceptions that are the analysis of Plato's theory of Forms could explain to compose of two distinct worlds or dimensions of being. The world of physical objects in space and time is known through sense perception ad ordinary thought. The perception of concrete and abstraction in the mural of SIM could access to knowledge in the perfect form. The paper raises cases of how monasteries in Thailand were influenced by the concept of Sim and how the ideological recognition has changed over time.

Eren Erdener
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Space Utilization - Introduction to an Unobtrusive Method of Building Analysis for Evaluation and Programming

Second only to their human capital, the most valuable assets of organizations, are their facilities. Facilities do not only provide an environment that can enhance the performance of their users, house the operations, but also contribute to the desired image of an organization through their aesthetic and utilitarian qualities. For users to perform daily tasks at a certain level of comfort within these facilities requires a layout that reflects the type and sequence of activities of the organization and the efficient use of spaces of different functions. From time to time organizations go through changes in their daily and long-term operations that, in turn, make new spatial arrangements necessary. As a result of such changes, there would be need for a growth in certain room types and their support areas, whereas certain type of spaces would shrink in size and utilization or simply converted to other uses. Before any of these changes are planned and implemented, it is only rational to measure how efficiently the existing facilities –buildings, spaces- are being used and if the desired changes can be realized without costly building additions.

The research first presents utilization metrics, such as time and occupancy related measures, followed by a new and combined umbrella of derived metrics, namely *space use intensity* (H), yielding a single index of utilization (E) that combine the two previous measures as a means for an understanding, rooted in decision-making for normative (programming), and explanatory (evaluation) roles of utilizations of both existing and planned buildings.

Throughout, the method, its concepts-variables and their relationships are introduced by means of examples of practical and simplified calculations.

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Reuse of Historical Train Station Buildings: Examples from the World and Turkey

The alterations occurring in social structure due to developing technology and globalism also affect architecture by resulting in the conservation, rehabilitation and re-use of the architectonic buildings. Among the buildings that will be conserved, the industrial heritage is one of the most significant conservational topics which previously had no interest but testified a great period of time. Today, the contribution of industrialization to the social life together with architecture can also be observed by the help of these buildings. Meanwhile, the railway buildings are the first industrial heritage structures built widespread in all countries by the invention of the locomotive. The ones that are still alive today have been re-built or restored in parallel to the developing technology and continued their original functions by the help of new additions adopted on these buildings. This situation is also same for Turkey. The objective of this paper is to give information about the re-use process of the historical railway buildings by giving examples from Turkey and all over the world. In this context, the protection methods and the precautions that should be taken during the protection will be explained on these examples.

Kevin Erickson
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Prototype vs. Paper Architecture

Architect's methods of critical exploration and means of representation have shifted over the past quarter century. In the 1980's and early 90's many architects turned toward the academy because economic conditions drastically curtailed building commissions. During this time, the work of 'paper architects' reflects a period where intellectual debate and abstract graphic representation became an established proactive mode of research. Today, emerging from a comparable economic climate, architects are finding themselves engaged in similar practices. Aided by advances in technology, today's preferred method of exploration has shifted from 2-dimensional drawing to scaled 3-dimensional artifacts; evident in venues like the PS1 MoMA's Young Architect program, the Architectural Association's Summer Pavilion series, and many other small-scale fabrication orientated endeavors. This paper explores overlaps in these two periods of architectural history and further investigates how 3-dimenisional prototypes can help bridge the gap between representation and production in today's digital milieu.

Elisa Fain
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Reinforced Concrete in Anastylosis: The Establishment of a New Technique

The new technique of reinforced concrete had revolutionized during the 20th century the entire practice of construction, from the project design to the building yard. A new approach had consequences also on the restoration of monuments, especially from the Thirties when reinforced concrete had a widespread diffusion in the restorations all over Europe; the new technique could confer to historic buildings new and greater performances compared to traditional materials like masonry and timber.

The paper wants to focus in particular on archaeological heritage, often characterized by buildings that had lost structural completeness since they are in the state of ruin, to identify what technical and structural potentialities reinforced concrete offered for the specific constructive and structural conditions in archeological areas, with special reference to the practice of anastylosis, when in many cases the representation of the "Ancient" couldn't have existed anymore without the use of the new technique.

To develop this issue the work will refer to the restorations carried out between the end of World War I and the Fifties in some important archaeological areas in Italy and in Greece by Italian archaeological missions, both with references to historical sources and to the observation of constructions.

The comprehension of the structural objectives of modern interventions is a step for the understanding of the actual structural behavior of ancient buildings, that are today mixed structures. Their complexity has not yet been exhaustively considered by law, but this will be necessary for safety evaluation, also in case of earthquake, and for intervention design.

Eduardo Jorge Cabral dos Santos Fernandes
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The Cognitive Methodology of the "Porto School": Foundation and Evolution to the Present Day

As a consequence of the international impact of the work of Álvaro Siza Vieira and Eduardo Souto Moura, the so-called "Porto *School*" has become a global phenomenon. But the expression "Porto *School*" implies much more than the work of these two architects: it designates an *identity* that relates the pedagogy of a teaching institution with the ideas and architectural practice of its professors and/or former students.

This *identity* was born as an idea of *Portuguese Modern Architecture* with the work of Fernando Távora, between the publication of "O Problema da Casa Portuguesa" (1945) and the building of the Vila da Feira Market (1954-1959). This individual action (adapting international modern models to Portuguese physical and cultural context) became a collective trend between 1955 and 1961, the years when the "Survey on Popular Portuguese Architecture" took place, a period of various important events to the definition of the ideas of the *School* (mainly, the first important works of Álvaro Siza: "Casa de Chá" and "Quinta da Conceição's Swimming Pool" in Leça da Palmeira).

Today, this *identity* subsists, as a result of the transmission mechanisms (in the school and in the studio) of a *cognitive methodology* (a *way of thinking* connected to a *way of doing*) that relates the practices of *collaboration and relation with the context* with a timeless understanding of *modernity*, a concept of architecture as *figurative art*, a *Vitruvian* belief of the architect's education and the endorsing of the analogical drawing as the main instrument of conception and synthesis. Nonetheless, the persistence of this *idea of School*, nowadays, implies the respect for the heritage of its *way of thinking* but, paradoxically, it also needs a continuous critical exercise concerning the update of this legacy.

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The Future of a Metropolis - Planning 100 Years Ahead!? Were the Predictions and Considerations of Constantinos Apostolos Doxiadis about the Future of Copenhagen only Academic?

2013- the important Greek architect and urban planner Constantinos Doxiadis (1913-1975) would have been 100 years old. Unfortunately, illness shortened his active and visionary work as he died at the age of 62. But during his remarkable career he managed to leave his mark on urban development and professional discussions of his time, on a global level, in both theory and practice. In record time he came to play a unique role in the urban planning of the 60s and for the development of tools and methods which went on to become ground-breaking for urban planners in the past as well as today.

In 1963 Doxiadis - at the request of the Danish Architects' Association - formulated some suggestions for the future development of Copenhagen. He called his contribution: "a few abstract considerations", and argued for a 100-year plan; this triggered a lively debate among Danish urban planners of the period.

To what extent was Doxiadis correct in his analyses and predictions? What is the result if you compare actualities to Doxiadis' attempts not to get bogged down in detail but instead remain at a more general and "abstract" level? And to what extent were the sceptics of the time right in their criticism of Doxiadis' approach? Is it nowadays possible to postulate, that an improved experience base and more highly-developed information technologies and tools for data processing have made it possible to predict the development of a capital such as Copenhagen in a more qualified way?

What methods do we use today? How are cross-disciplinary assessments incorporated? Are Doxiadis' contributions in the form of his Science of Ekistics and his statements from the "Delos Declaration" still topical and valid with regard to the insistence of contemporary urban-planners, in their efforts to achieve quality of life and sustainable urban development?

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«The Active Design Process»:
A New Reference for Architecture Education

This communication proposes a quick overview of my thesis work in terms of the elaboration of my research subject. My object of research focuses on the theoretical foundations and the epistemological fallouts from an active generic process of shape's generation. Within the framework of this orientation, it is about a work which looks deep inside a generic process leading to the Meta-Morphic modeling of Tunis city facades. To answer an increasing complexity of the design methods, new architectural paradigms based on auto-adaptive and auto-organized structures are to be developed. The latter have to allow the provision of new educational approaches. It is based on a combinatory of "analytic model" and "dynamic model" coming to deciphering the design process leading to the development of generative system and their contributions to the teacher and the student. But it also implies a constant effort to redefine the epistemological relevance of the studied objects; the methods and tools were mobilized at the moments of their application. It is the reason why I choose in a reflexive return on the practices of design and analysis of the produced shape. The purpose of this article is to question the relationships between architectural design and formalization the parametric modeling of the shape.

Since the digital design process proposes new tools and a new methodology for design, there should be a modification in the design education. In Tunisia, this vision of modern architecture is about how to be developed primarily within the School of Architecture and in particular in our research laboratory. In this context, the construction of many buildings with hybrid forms required to revisit the activity of the architectural design by means of the dynamic generative design. But how parametric modeling assists to the design? Does "Generative Design» from the produced architecture it allow to assist the student or the teacher? Those are the questions which we seek to highlight here. Subsequently, the results of the research paved the way to conclude that formation of the whole through its parts or components is possible in contemporary architecture. It shows that complex morphological structure which seems sometimes with no clear design or conception except urban or functional constraints; refers to an abstract general model "Meta-morphic Model". The initial results of the experiment also revealed that a morphic unit can have a variety of similar configurations. They will be the basis of a meta-morphic model capable of generating new compositions in real time. Thanks to 'operators' of parameterization (to be defined in parallel

with the advancement of research, we can generate a digital model from a variety of morphic primary structures of facades in our case. It favors a "reproducible" architectural design all the time without being for all that a simple superficial shape coping. That leads to the development of parametric models and their relationship to architectural design. Moreover, this is why I also suggest questioning new postulates of the architectural shape: its operability, its reproducibility and its autonomy.

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The Use of Space Syntax Analysis for the Study of Late Bronze Age/Early Iron Age Domestic Architecture on Crete

Following the collapse of the Minoan Palatial system and the abandonment of most coastal settlements on Crete in the late 13th century BC, new self-sufficient villages were established at a number of upland sites in the Late Minoan IIIC period (c. 1200-1100 BC), many of which were occupied throughout the subsequent Early Iron Age (c. 1100-600 BC). Even though the built environment of this period is generally characterized by small settlements, simple building types, and the use of local, non-monumental materials and techniques, close analysis of the architectural and archaeological remains can still provide important insights into the sociopolitical and economic organization of these communities and the changing conceptions of public and private space. This paper focuses on the analysis of domestic architecture of the Late Bronze Age to Early Iron transition on Crete at sites such as Kavousi Vronda, Chalasmenos, and Karphi, highlighting similarities and differences in the spatial configuration of select houses. In particular, this study explores the utility of space syntax analysis for the architecture of this period. Although many of the quantitative techniques and theoretical assumptions of space syntax analysis have been used recently to discuss ancient architecture, the results are not always very instructive when based upon the incomplete evidence found at incompletely preserved sites. Despite these limitations, some qualitative aspects of space syntax analysis, particularly access analysis and visual graph analysis, can be used to visualize and discuss the internal configuration of buildings and to suggest patterns of movement, visibility, and even notions of privacy at both the household and suprahousehold level. When informed by detailed contextual information about the distribution of artifacts and features, these insights provide complementary perspectives on how people organized their built environment and allow us to compare and contrast architectural forms more formally and effectively.

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Alvar Aalto's and Álvaro Siza's Construction of Place and Landscape

The link between architecture and nature, from the standpoint of the relation of architecture with its place and, in a broader sense, with the landscape it integrates, is one of the main concerns explicit in Alvar Aalto's and Álvaro Siza's design processes, works and writings. We propose to explore it as an existing parallelism between both architects' practices and as a problem whose understanding has a constancy in each one's career related both to their methodological approach and to their continuous postponement of the theoretical systematization of their convictions, they never considered safe enough to be written.

Aalto and Siza seek a cohesive balance between man's interventions and pre-existing nature. For both, architecture is something that contrasts with nature by alterity, but that also adapts and complements it. The relation with place and landscape has a propellant role in their design processes, enhanced by their distrust of an *a priori* theory. Their projects are born from the place they simultaneously define by a pondered search, developed case by case, for naturalness, for the same sense of evidence, proportion, simplicity and timelessness, they find in nature. Therefore, we also consider relevant to explore the use they do of conceptual analogies with nature's formative processes, and even of formal analogies, i.e. of the mimesis of nature forms in architecture, which Bruno Zevi considered the naturalist misconception of organic architecture.

To better understand and relate Aalto's and Siza's approaches to the problems outlined, we will analyse their writings, interviews, drawings and works, as well as studies others realized about them.

Besides, whenever relevant, a comparison will be made with other architects, like Le Corbusier and Aldo Rossi, whose practices and positions towards project theory are thought to be distinctive.

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Identity Shaping Landscape People's Houses in Israel – A Case Study

The People's House is a civil building emanating from the industrial revolution in late 18th - early 19th century England. In the early 20th century, the People's House became the representation of the community's "togetherness" and symbol of a civilized society. This institution, which expressed socialist utopias, was consistent with the Zionist movement's aspiration to mold a new man on a socio-cultural, non-religious basis. And People's Houses were indeed built from the outset of the Zionist settlement, towards the end of the 19th century. From the social and cultural aspect, the Houses were perceived as the "modern melting pot of the soul of the Hebrew nation" by the Zionist movement.

A complex relationship to the landscape is unfolding with regard to the natural as well as cultural, physical and metaphysical aspects of these representational structures. The architects of the People's Houses perceived the landscape both as a source of inspiration and as raw material for their creation of the "melting pot of the new Jew". It has a clear functional aspect: the buildings were too modest to contain large gatherings. The surrounding exterior offered solutions to expand their arena. This was also a declaration of an ideological intention. The Zionist society, which identified biblical setting in the landscape, regarded it as a calling, legitimizing a "Genesis" project - the reconstruction of the homeland. This became part of the ideological raw material from which the People's Houses were built. Following a brief background, this paper proposes to discuss a number of case studies which present an interpretation of these architectural projects as a search for belonging to the landscape, a creation of a connection between society and its new territorial surroundings and a means of defining an identity.

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Types & Functions:
Archaic Chinese and Greek Roof Tiles

This paper discusses types and function of Chinese architectural terracottas in the Warring States period with particular reference to the Qin roof tiles (677B.C.-A.D.215). The principle method of the study is comparison within the materials and cross-referencing relevant materials. Archaic Greek architectural terracottas are observed as similar parallels. The great interest of this study is not about who invented what, whether independent. The intention is to raise questions emerged from observations and discuss problems. This study is presented as a first step in the process of undersanding ancient Chinese tiles within a wider picture.

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Transformation of Urban Structure Identity

The settlement structures constitute a comprehensive, coherent, unique system with its inner structure which represents its own, unrepeatable identity. Its uniqueness is not only affected by external forms and expressions of the physical structure, but also internal, invisible elements of the social interaction of cultural entities. The Transformation of uniqueness of urban structure as their essential characteristic which providing that any settlement structure is unrepeatable. It is resulting in further properties, which we defined as an urban character and urban identity.

Amount of urban character in specific locations, provides a standards and qualities for using of public space by people in different city districts. According these spatial attributes it is possible to recognize close connection among the urban character and the identity. Through the linear and planar model, we investigate the properties of the selected urban structure. We study their interaction and then evaluate the degree of transformation of urban structure itself. By presentation of planar and linear model graphically depicts the issues of experiencing space and the necessity and urgency to preserving identity. The aim is to record and evaluate the quality of urban character and identity of selected parts in changing urban structure.

Selected research example of changing identity of urban structures is abandoned industrial areas. They had an important role in context of some Slovak towns. Industrial factory often represented an important manufacturing feature in the city which had big influence on establishing and building urban settlement near to the factory. The present situation of brownfields in Slovak towns represents a wide range of issues which has influence at forming and transformation of urban characters and its identity in context of city.

Transformation of urban structure is represented by the identity and urban character of specific urban structures in the realm of their openness or closeness zones.

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Tectonic Modalities in Baroque Architecture

Erwin Panofsky's 1934 essay, entitled "What is Baroque?" provides an opening to discuss the state of the tectonic in Baroque architecture. His text raises a number of issues including: what was missing in the available literature on the art and architecture of Baroque that Panofsky wanted to bring to the reader's attention? Should Panofsky's take on Baroque be considered as part of a general problematic that sees Baroque as a unique state of mind and aesthetics, an understanding that has been revisited whenever the culture of Humanism faces its historical limits? To explore the broader theoretical connotations and implications of the questions raised here, this essay will investigate the position of two other major art historians on the subject, Heinrich Wölfflin and Alois Riegl. These historians will be discussed in connection to their discursive commonality with Gottfried Semper's theory of tectonics. I will give particular attention to various interpretations of the tectonic of column and wall, if only to index the possibility of a different reading of Baroque architecture. These readings will make the following historiographic points: I will argue that neither rhetoric nor Jesuit propaganda was tooled enough to deconstruct the tectonic potentialities of a masonry construction system practised within the representational system of Humanism, Baroque architecture included. I will also discuss the singularity of Baroque architecture in its complex rapport with the culture of Humanism; I will consider its deviations from the Humanist ethos, and the possibility of opening a new chapter where the major concerns and principles of Humanism can continue to be relevant in a different historical circumstances. Finally, I will present the historicity of the 1930s, and the emergence of the thematic of critical historiography, as the missing point in most contemporary theorization of Baroque in general, and of Panofsky's text in particular.

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Influence of Regenerating of Large Housing Estates on Sustainable Urban Living condition -Benefits or Threats?

We really believed, in a quasi-religious sense, in the perfectibility of human nature, in the role of architecture as a weapon of social reform ... the coming Utopia when everyone would live in cheap prefabricated flat-roofed multiple dwellings - heaven on earth (Philip Johnson, US architect, quoted in Coleman, 1985, p 3). There is no doubt that the large housing estates have an immense impact in the urban and even regional, housing markets of most cities in Europe. Most of these large housing estates were built during the post war decades with hopeful perspective and glorious and idealistic ideas. It is obvious that the idealistic idea did not get true and in reality many of these large housing estates became problematic. Although many of these estates have no major problems and they are still popular but in the other hand they are some which have had problems or still have problems. Nowadays with risen in incomes and changes on life-style these estates have large number of people with low income or unemployed. In some countries large number of immigrants and minority ethnic group are living in these areas. In some other countries these areas are increasingly associated with crime and social exclusion. The research explains how so many large housing estates change from celebrated urban innovations into problematic areas. Some of scientists believe that some changes or in other word some initiatives will need to improve these estates. Finding out what circumstances had better effects on these estates, will help to get a picture of what can help to enhance the quality of life in these estates.

Xiaoming Hu
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Material Autograph: Rethinking on the Design of Qiqiaoweng Wooden Pavilions from a Tectonic Perspective

Material autograph means the character of space which is endued with materials. It is embodied in architecture by sort of structure and the quality achieved. The nature of material essentially prescribes its method of joint, and the structure and construction are the results of this prescription. We can easily find out the material autograph of wood in Chinese traditional architecture.(fig1)

It has been well known the strong tradition of Chinese wooden structure for the architecture academia, while the most existing interpretations has been based upon the architecture theory of stylistic, so that the scientific and tectonic issue of the tradition has not be expressed well. This situation very much influenced Chinese architects to learn the wooden structure as the cultural tradition and transformed into the application of modern architecture in China. In order to change this situation, we shall turn the academic orientation to the tectonic approach.Based upon the scientific analysis, the author has been able to explore the construction process of the particular connections and joints, such as Dougong, mortise and tenon joinery.With those studies,the author tried to re-evaluate the meaning of tectonic culture and mountainous human habitat culture on the wooden construction.

Nowadays, more and more architects noticed that if a defined architectural culture developed not along the stylistic evolution, it should be still based upon the tectonic evolution. Chinese wooden architecture can be better interpreted with tectonic view, and it demonstrated a relatively fair way.

The material used at Qiqiaoweng Wooden Pavilions was strictly limited with wood. Acting as a tectonic experiment, wooden structure itself performs as the enclosure and integrated way of austerity and authenticity. Based upon new technologies of wood and wooden structure, the three pavilions demonstrate the expressive potentials, which the material of wood provides to both construction and space perception.(fig2,3)
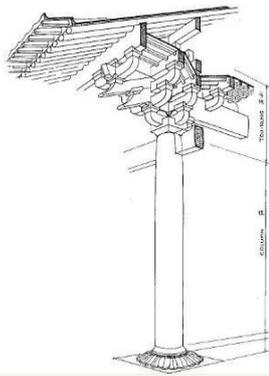
Fig1:The Chinese «Order»   Fig2,3:The Qiqiaoweng Wooden Pavilions

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David Grierson
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10 out of 10 for Scottish School Design? Providing an Accessible, Sustainable Environment for 21st Century Education

This paper describes an ongoing doctoral research project which aims to identify the performance of accessible design in new and refurbished schools in Scotland. The research examines the ways in which different global and historical societal views of disability have been manifest in the built environment. It also examines the impact that the disability movement and the social model of disability have had on both the architectural profession and global and local education systems which are striving to become more inclusive. As we reach the midpoint of the largest school building programme in the history of Scotland, it is crucial that accessible design processes and practices be evaluated in order to inform future building projects. Existing research of new and refurbished Scottish school buildings has largely been restricted to mainstream schools and is inconclusive with regards to standards of accessible design however findings suggest that areas relating to this aspect are underperforming. The impact of these findings is examined here with respect to best practice design guidelines in order to benchmark the criteria for school design assessment. Both the design process and the completed buildings are evaluated through a variety of quantitative and qualitative research methods, involving questionnaires and interviews with architects, local authorities and school building users, and conducting visual surveys of school premises. Results are analysed to develop recommendations for improving accessible school design processes and practices in the future. It is intended that these will also be applicable within existing socio-political parameters and take into consideration a holistic view of the entire design process. In so doing it is intended that this study highlight the need for a paradigm shift in the way designers view accessible design, and contribute towards the creation of an inclusive, inspirational and sustainable learning environment for current and future generations.

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Botanical Tree, a Source of Inspiration for Designing Biomimetic Fractal Architecture

Tree, a perennial woody plant, is not only one of the most useful and essential nature's gifts that offer numerous benefits to human beings, but also a source of lessons, information and inspirations for the advanced academic and research fields, particularly science, engineering and architecture. Tree's geometrical shape and form are closely associated with its own structural stability, strength and function. Its non-Euclidean, complex and discontinuous figure is described by fractal geometry that shows self-similarity, recursion and irregularity at every scale. Fractal geometry, coined first time in 1971 by Benoit Mandelbrot, was a revolutionary breakthrough that opened a new and wide vista to look into the nature's appearance in different but mathematical and scientific angles. Architecture has always been getting lesson and inspiration from nature, and especially from trees since earliest human civilization, and recently a new practice on advanced 'biomimetic architecture' has emerged since mid-twentieth century. However, with the advancement of computer, digital technology and material science 'biomimetic architecture' has become much more experimental, sophisticated and emergent.

This paper, clustered by three main chapters, discusses about the advantages of fractal geometry of woody tree, and focuses on mimicking the geometrical benefits of fractal shape into architecture and construction. First chapter will talk about the advantage of tree's fractal shape for its structural stability and strength, and then it will discuss about the potency of using this concept for designing architectural structures and frames. Second chapter will discuss about the fractal pattern of leaf-veins and its role for holding the leaf as a frame, followed by talking about applying this notion for designing smart building facades and skins. The final chapter will explore about the shape of perforated tree foliages that helps to filter sunlight and wind. Afterward, it will discuss about applying this excellent model of foliage for designing perforated architectural exteriors for controlling the entering of daylight, sun and air, and calculating urban-surface heat, too. In this last chapter, 'fractal dimension' method will be addressed as a main technical tool.

Suha Jaradat
Doctoral Researcher, University of Reading, UK

Can the Architect be the Virtual Master Mason?

Ancient cultures used the same word for the architect and the builder: the 'master mason' that not only designed but managed the construction process. With the development of architecture as a profession in the 19th century, a clear division between the design and building activities occurred. The architect's role became more of a mediator between the client and the builders. As projects get very complex, more people from various disciplines are involved. The developments in the design and construction industries and the advances in digital technologies and processes used including Building Information Modelling (BIM) have pervasive effects on the interactions around design, organizational structure and institutionalized roles. This research examines how individuals and teams collaborate in the practices of architecture when they work in BIM-enabled environments and explores the possible future scenarios and implications. 40 interviews were conducted with BIM practitioners who were mostly architects in 12 leading organizations in the UK and USA. Preliminary findings indicate that architects are thinking more about how buildings are being constructed when they create 3D BIM models as they are virtually building them which brings a lot of the details forward in the project and resolves a lot of the problems at the early stages. Moreover, the interviewees argue that professionals have to communicate more often and collaborate in an efficient way as more information is required to build the models. In addition the data suggests that more highly proficient individuals skilled in a wide range of areas are needed. In this context architects are not expected to communicate the design intent to others only but to prove that the proposed design is buildable which entails different set of skills. Further questions arise regarding the pedagogies of architecture and whether the architect will become the virtual master mason sometime or never?

Luz Jimenez
PhD Student, Universidade Tecnica de Lisboa, Portugal

Designing the Muse of the Space

From the time of the muses, the collecting of works of art is a fundamental part of the human essence. In its beginnings, arises from the domestic space, as in Roman houses where there was a space for the contemplation of objects brought from other lands. Then it turns into collective places where space was transformed changing its size and scale in the research of a greater representation. But, interestingly, there remain forever the parameters of the domestic scale; the Promenade through the exhibition is therefore, the ancestral home of the collector and the human scale, a latent memory in many museums.

In this way, the sense of promenade is a fundamental value that serves as a beginning for the design of a new space and a new kind of museum.

Eventually, the diversity of the program and the development of popular culture make industrial buildings, which previously were used for sweatshop, become icons for culture by its conversion in museums, subverting the concept of monument. Up to now, these have become almost cities inside cities, encompassing a multitude of uses and functions, entertainment and inspiration to the collective community. While the historical city itself suffer a phenomenon of transformation in a museum object, becoming a false symbol of the identity of our culture.

In an attempt to explain the evolution in the design of this kind of space, I will compare a series of emblematic projects in the history of museums like the House of Sir John Soane, the Gallery of Uffici, the Guggenheim Museum of NYC, Museum of Tokyo, the project the City Museum to Tate Modern Museum with the work of Lina Bo Bardi, in which projects, the MASP and the Museum of Art Bahía, it could be found designs paradigmatically universal in the history.

Kemal Reha Kavas
Assistant Dean and Chair of the Architectural History Program, Akdeniz (Mediterranean) University, Turkey

Environmental Aesthetics in Medieval Castelvecchio Calvisio (Abruzzo, Italy): Settlement and Architecture

The central Italian region of Abruzzo, lying between the Adriatic Sea and the Apennine mountain range, is divided into coastal and inland territories. In history the semi-nomadic culture of transhumance developed as a seasonal movement between these territories due to search of rich pastures for the sheep. Every autumn sheep and shepherds departed from their homes on the mountain settlements and descended towards the Adriatic coast where the animals could find enough food during the winter. In spring they turned back. According to seasonal changes thousands of men and millions of animals moved from the mountain to the plain and vice versa. Wool trade based upon transhumance reached its maximum development toward the end of the Medieval Age. For centuries, the lords of these lands have produced architectural solutions (fortresses, watching towers, temporary dwellings) for regulating and controlling transhumance. Logically-planned fortified settlements were positioned along transhumance routes. Although this culture gradually disappeared due to industrialization and consequent emigration from the region, architectural heritage of transhumance still illustrates intimate historical relation between man and environment. This relation has produced characteristic environmental aesthetics where culture merges into nature.

The fortified mountaineer settlement of Castelvecchio Calvisio in inland Abruzzo is a reflection of the tightly-gathered, clearly-planned, compact and protected settlement pattern with a right-angled street layout and a unique outer perimeter with an elliptical macro-form. Two-floor dwellings integrating ground floor-workshops or stables into upper floor-living spaces and narrow streets covered by overarching staircases attached to the façades formulate a settlement pattern enhancing protection against climatic conditions and indicate the use of natural resources with maximum efficiency. This paper unfolds the characteristic environmental aesthetics of the fortified mountaineer settlement of Castelvecchio by investigating its agricultural system, settlement pattern and architectural configurations.

Michael K. Kim
Professor, University of Illinois at Urbana-Champaign, USA

Design Reasoning:
The Logic, the Problems, and the Strategies

Design is configuring synergistic organization of the requisite parts into a coherent whole which, when materialized as specified, is expected to manifest the desired properties and function as intended. Design is the means; and what it intends to accomplish the end. To be a good design, then, not only should the created design be an effective and efficient means to the end, but also should the end itself be the goals that are worthy of accomplishment without unacceptable level of side- and/or after-effects. For any design, therefore, establishment of its plausibility requires successful arguments of two kinds. On the one side is to establish the worthiness of accomplishing the goals; and on the other to demonstrate the efficacy of the particular design as the means. These are identified in this paper as the "Teleological Explanation" and the "Functional Explanation," respectively.   However, there are full of problems in these. Some are fundamental problems of logic, leading to the methodological problems of discourse; some are epistemological ones, leading to the problem of applicability of the knowledge underlying the discourse.   This paper discusses the logic and the structure of design reasoning, illustrates the problems and difficulties of demonstrating the plausibility of design, and presents the strategies for successful design reasoning.

Nancy Klein
Associate Professor, Texas A&M University, USA

The 'Life History' of Building A on the Acropolis of Athens

In the 19th century, following Greece's successful struggle for independence, work was undertaken to restore the Acropolis of Athens to its ancient glory. Buildings from the recent past were dismantled and an effort was made to uncover the Classical sanctuary of Athena. The systematic excavation of the Acropolis, from the modern surface to bedrock, brought to light thousands of fragments of ancient Greek sculpture, architecture, pottery, and small finds. Startling discoveries of statues provided scholars with a wealth of information about the development of Greek sculpture in the Archaic period. The burial of several korai side by side in the ground also hinted at a process of disposal following the Persian destruction of 480 B.C. and leading up to the great Periclean building program of the second half of the 5th century B.C. Less well understood were the hundreds of architectural fragments recovered from the deep layers of fill to the east and south of the Parthenon foundations. In 1904, Th. Wiegand published a selection of the blocks and suggested their division into one larger (H-Architecture) and several smaller buildings (A-E), but there is little agreement on the form and date of these buildings. This paper examines the architectural elements from Building A as a basis for exploring archaic Doric design and construction. The work is based on a complete reexamination of the extant architectural elements that make possible a reconstruction of its elevation and a comparison with other archaic structures. In addition, an assessment of the surviving blocks provides evidence for the way in which older buildings were dismantled and reused in the course of the 5th B.C. century renovations of the Athenian Acropolis.

Esin Komez
Researcher, Delft University of Technology, The Netherlands

Reinterpreting the Contemporary Architectural Practice in Turkey in the light of Context Debate

Architecture is mainly defined in relation to its intrinsic principles (developed on the bases of inherent logic of form generation where technical, structural and material characteristics are embedded in) and extrinsic conditions of its context. In the contemporary architectural practice, it is getting more important to define these extrinsic conditions as globalization has two major consequences in the built environment. On the one hand, it promotes internationalization and this leads to the commoditization of architectural objects that are detached from the notion of "place". On the other hand, it triggers strong expression of nationalist identities and this leads to the imitation of traditional architectural elements that are detached from their specific historical "periods". While the former causes alienation the latter creates fake identities. As a developing country, Turkey is highly influenced by these two major impacts of globalization on the built environment.

It is witnessed that Turkey opens its doors to the globalized architectural objects of star-architects and international corporate firms in order to take part in the network of multinational capitalism. In addition to this, Ottoman and Seljuk style is revived in order to provide a link with history and tradition in search for a unique identity. As a consequence, contemporary architectural practice in Turkey is either in the service of "homogeneous space of globalism" or the valorization of the "national identities". Thus, contextualism is either disregarded or used as a populist expression. It is asserted that there is a need for a more critical and comprehensive understanding of contextualism in the age of globalization. In order to achieve this, the origins of the context discussion, which appeared between the 1950s and 1970s as a reaction to modernism, have to be revisited. The study aims at mapping the diverse dimensions of the context debate and throwing a light upon the current discussion in Turkey accordingly.

Katrin Koov
Architect, Estonian Academy of Arts, Estonia

Imprint

A new college has been built with the odd face - an imprint from the past...

Narva is the border city of Estonia and the European Union. Narva has been blossoming at the baroque era, when the country was part of Swedish Kingdom. The King even considered of moving the capital from Stockholm to Narva in order to be closer to the vast Russian market. But history went differently. After Northern War swedes had to give up Estonia to the Tsarist Russia. In 1918 Estonia got first its freedom. During the II WW Narva was bombed down by soviet army and Estonia was again occupied for next 50 years. The ruins were cleared and Narva old town was rebuilt with the hrustsov-style socialist apartment buildings. After regaining the independence in 1991 Tartu University established a new college in Narva for educating high school teachers. In november 2012 there was opened a first new school building in Narva after the restoration of the independence. The college's site is in old town centre, next to the Town Hall, that is one of the few buildings that was remained from the glorious history. The new school facade was designed as an imprint of the old stock exchange building that stood at the place of the new building. The dialogue with the painful history was perpetuated.

In this project, the centre of meaning of the architecture is placed entirely outside the building and is manifested in the space in front of it. The volume of the historical stock market building is outlined in the space in front of the new building, leaving a negative impression of the destroyed building on the facade of the new building. This solution simultaneously underscores the absence of the old town and reminds the public of its memory.
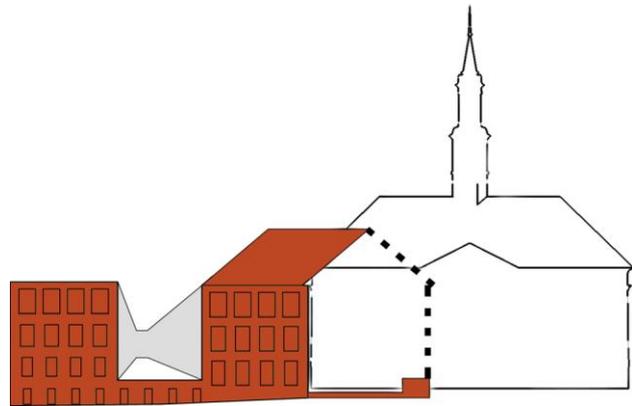
Architecture can´t solve problems by force and can´t cover them up. Architecture can address the problems. Architecture can raise questions. Architecture can help people to see more.

Sevde Korkmaz
PhD Student, Yildiz Technical University, Turkey
Deniz Erinsel Onder
Yildiz Technical University, Turkey

The Visibility Graph and Syntactical Analysis of Spatial Organisation in Traditional Buca Houses

Buca was a settlement where most local Christian minorities, mostly Greek citizens of Ottoman Empire and foreign and wealthy businessmen and their families called Levanten lived. The architectural values that physically form this settlement express themselves in every area of social life within different levels in the course of time. Although old cities lose their architectural features due to fast pace of urbanisation, Buca managed to remain until today protecting its anonymous architecture developed in 19. century.

The aim of this study is to analyse the traditional Buca houses and to achieve accurate information about spatial organisation, use of space and operation of the houses. Plans of eight houses in Buca were also examined and analysed with the space syntax method.

 As a result of the analysis made in Buca traditional houses, similarities and differences between the spatial and visibility graph analysis of the houses were identified. Spatial data obtained by the analysises were covered comparatively.

Ruchie Kothari
Student, Carnegie Mellon University, USA

Development of a New 'State-of-the-Art' Building Energy Dashboard: C^3

A building's performance is affected by occupant behavior. A building designed to be a high performance building may not achieve its energy and comfort goals due to occupant ignorance. Hence, it is necessary to develop eco-tools that engage building occupants and sustain energy-conserving behavior amongst them.

The C^3 dashboard has been developed as a new 'state-of-the –art' building energy dashboard for commercial buildings. This eco-tool integrates new metering and actuation technologies along with persuasive techniques to encourage pro-environmental behavior. The personal dashboard uses the C^3 approach, i.e. – to communicate- to consult- to control. It communicates individual real-time energy consumption and indoor environmental conditions to the occupant. The dashboard then behaves as a consultant by providing the occupant with case-specific recommendations to reduce energy consumption based on his equipment characteristics, comfort settings and usage preferences. Finally, the dashboard enables the occupant to control appropriate building systems and appliances. The C^3 dashboard explores the level of controls and energy savings of the range of components that ensure lighting quality, thermal quality and ventilation and plug load management.

This paper focuses on the development of the product brief and design of the user interface for C^3. The dashboard was designed through a comprehensive design research process. Technical as well as visual features essential for C^3's functionality and usability were developed using interaction design techniques such as design workshops, feature prioritization, communication tests and navigation tests with the multi-disciplinary development team and end-users. A decision tree to provide case-specific recommendations for plug-loads was also developed.

The findings from these studies were used to build and deploy the first C^3 prototype for plug-load management. Initial results from field-studies show 10% energy savings in plug-load energy consumption. Findings from the field-study are used to identify improvements in product features and design.

Nico Kotze
Professor, University of Johannesburg, South Africa

Hidden in Plain Sight: The Plight of the Population of Nthabaseng Village, South Africa

A large proportion of the Sub-Saharan population lives in housing units in urban and rural areas that do not provide in the basic needs of the inhabitants. In South Africa the government has tried to address the housing issue by building Reconstruction and Development Programme (RDP) houses for the homeless. Unfortunately, the recipients of these housing units feel that these developments do not provide for their basic needs. Furthermore, the housing satisfaction in these housing developments in the country is very low, resulting in civil unrest in a number of urban locations. However, housing satisfaction is a very complex concept; generally it is defined as people's level of satisfaction with their housing unit as well as the neighbourhood and environment they live in. In this case study the quality of the provided housing units and services in Nthabaseng Village, Limpopo Province in the north of South Africa are investigated. Firstly, the RDP houses were constructed in an area where there are no work opportunities for the inhabitants. Hence, it was found that the majority of the interviewees were unemployed. Secondly, the interviewees were dissatisfied with the quality of the construction and the size of the housing unit as well as services provided. Although the RDP houses in this development had bathrooms, these were not connected to a main water supply system. Of the three reservoirs that were installed in 2007 only one was still operational and thus only one communal tap served the community in 2011.

Lejla Kresevljakovic
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Social Dissolution's Reflection on Housing in Afterwar Bosnia and Hercegovina

Multigenerational housing is in the world, both for cultural in underdeveloped countries, but also for economic reasons in developed countries, increasingly represented. In Bosnia and Herzegovina, multigenerational individual type of housing construction is largely present after the last war (1992 -1995) on the surrounding slopes of Sarajevo. Because of the configuration of new settlements and the fact that it is unplanned construction, new neighborhoods resemble slums. However, these are permanent structures for which were spent considerable economic resources. Due to the fact that people willingly choose this model of housing in the period after the war, in stead of collective condominium building types, this phenomenon should be researched by the academic community. The paper argues that the causes of representation of the multigenerational individual type of housing are dissolution of former socialist society, collapse of social confidence and the inability of the organization to a higher level but the level of family. The quality of new residence, per the criteria of the housing surface, its insolation and the open areas is significantly higher compared to the previous standards of socialist construction, while the spatial quality of settlements, its infrastructure, equipment and opportunities for further development and integration are poor. Dissolution of the society is led to the dissolution of space and the future spatial integration depends on the level of awareness of local communities and the integration of society at a higher level.

Nilgun Kuloglu
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Serap Durmus
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Architecture and Technology: Architect's Expression Language in Design Process

Meaning Since the appearance of Vitruvius's book De Architectura, architecture has been speaking out loud on the basic concepts that identify architecture. The categories 'Solidity (Firmitas), Usefulness (Utilitas) and Beauty (Venustas)' were repeated by Alberti in Renaissance in a different order as 'Usefulness, Solidity and Beauty'. In the most general sense, the architect constitutes an architectural model by taking these three elements into consideration. Every model reflects a unique language. This uniqueness corresponds to the manner and creativity of the architect.

Behavioral learning and transferring state which based on master apprentice relationship in architecture correspond lifelong learning in the context of architecture. Some of the purposes of architects are leaving a permanent product and to be in architectural literature. In this sense the thing which architects call 'originality' is equivalence of the concept of 'creativity'. Being able to understand creativity and creation as a phenomenon depends on an in-depth comprehension and analysis of the design phenomenon. The concept of "Creativity" refers to a solution for a problem or a state playing role in bringing out a new method. Creativity is regarded as the ability to put forward not only the new and the impressive but also the functional one.

From the beginning of the historical process onwards, such familiar forms like square, circle and triangle are worked with and some familiar architectural forms as arch, dome and squinch are achieved out of these. In today's approaches, however, trial and error method is used by benefiting from all the technological opportunities; the forms obtained and their derivations gain unfamiliarity and become theoretically controversial.

The original language of the architects is their buildings. This language with different reasons may vary according to ages and the phases when mankind lived have contributed to the change of this language. The mechanization brought by Industrial Revolution formed a language of the modern architecture and the development in information and communication systems introduced different designing environments. Architects in order to express their ideas with buildings via expression techniques such as drawings, perspectives; they get used the possibilities which are presented as this expression language. In the context of this study, the concept of "architect's language" is used for the language which architect use changing and advance of a tool which is a technological helper for design. Supporting

this idea in architectural world, architect-engineer cooperational works which dealt with design and technology will be considered.

In terms of acquaintance with the concept of globalization and it's using with technology for architecture society, this study which takes shape over architectural examples aims to contribute to architectural theory. Within the topic of educational technology, the importance of this paper to point out that how assocation of architecture and technology can be impasted over a concept –globalization-.

Veronika Kvardova

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Architectural Style and Decoration of the Industrial Buildings from the late 19th Century and the Early 20th Century

In the late 19th century and the early 20th century the industrial architecture was one of the most dynamically developing typological types. It significantly influenced the look of the cities that were expanding in this era thanks to industrialization. The primary condition for creating the high-quality architecture was adjusting the disposition and shape of the buildings to the manufacture process determining many parameters of the construction. The secondary condition, however very important part of the industrial architecture, was its architectural style. Therefore we may say today without any doubt that the shape of the city was influenced not only by the formation of the factory, as the manufacturing site, but by its architecture as well. This paper deals with the elements influencing the architecture of the historical industrial areas. The most significant factors were the influence of the progress in the construction and the use of new materials with the characteristics very often helping to make the construction fireproof and the working environment safe with hygienic conditions as well. One of the most important things concerning the process of forming the industrial architecture was the experience of the investors (manufacturer) from the previous realizations, or the pick of the architect and the construction company capable of making the utility architecture the unique piece preserving in its original functional and architectural style for several decades. This paper focuses not only on these aspects, but many others affecting the architectural style of the industrial architecture at the turn of the centuries. As an example the city of Bratislava that developed into one of the most industrial cities in Hungarian part of former Austria-Hungary, will be used. Unfortunately Bratislava has lost a great part of this valuable cultural layer in the last years.

Paola La Scala
PhD Student, University of Palermo, Italy

Museums and Exhibition Design in the Digital Age

From temples of sacred object to repositories of colonial trophies and from monuments of civility to spaces for self-expression, the shape, the function and the appeal of the museums though history has been fashioned to hold particular collections of objects. Moreover the shape and the size of collections themselves have directly determined the design of many museums spaces, so they have been also designed to adapt to particular display techniques appropriate for a particular collection. In the last twenty-first century the museum making is challenging, creative, complex. It has also been a period of fundamental reinvention in the design and shaping of museums and their exhibitions. The 'new museum making' includes emotive exhibitions within communicative buildings in order to create 'narrative experiences' which integrate objects, spaces and audience. Exhibitions are primarily about communication, communicating experiences, idea or concept to visitors. Considering, then, the recent developments in museums and exhibition design to adapt them to contemporary digital age, the museum professionals have increasingly put multimedia in the exhibitions. The creative use of technology in exhibitions, of course, allows museums to change the way of presenting objects and communicating their meaning, to put artefacts and works of art in context, to explain complex idea, to re-discovery great historical events, to increase opportunities for interactivity or to provide simulated and involving experience. However the excessive use of these tools can become overwhelming compared to objects themselves, transforming the museum into mere attraction. So, how can architects, curators and/or exhibitions designers build effective and communicative museums and exhibitions through new tools of communication? Are new media becoming integral to our notions of museum?

The paper, through many examples across Europe, aims to provide an overview of interpretative tools, their historical precedent uses and their roles in generating interaction and interactivity today.

Dale Laurin
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Le Corbusier & the Debate in People between Coolness & Warmth

The Swiss-French architect Le Corbusier (1887-1965) is recognized as one of the greatest architects of the 20th century. His designs range from private homes to the master plan and several government buildings created for Chandigarh, India. An author of over 40 books, he was an accomplished painter and some of his furniture designs are modern classics. Works like his Villa Savoye of 1929, with its continuous window bands and elegant white geometry, continue to influence the design of houses and skyscrapers alike.

As I will illustrate, I believe Le Corbusier's life and work are centrally explained by Aesthetic Realism (http://www.aestheticrealism.org), the philosophy founded by the eminent poet and critic Eli Siegel (1902-1978) who stated: "All beauty is a making one of opposites, and the making one of opposites is what we are going after in ourselves." This principle provides both the criterion for beauty and for happiness and self-respect in people's lives. It states that a building or work of art is successful in proportion to how richly and imaginatively it puts together reality's opposites, such as repose and energy, freedom and order, heaviness and lightness, and that we can learn from art how—in outline—to compose these same opposites in ourselves.

Not knowing this, people usually shuffle back and forth between opposing drives in themselves, making for inner turmoil and anger. This was painfully true in the life of Le Corbusier. In particular, as I'll show, the noted architect was in a terrific fight between the opposites of coolness and warmth, logic and feeling, impeding his expression. But at his best, particularly in his masterpiece whose siting was inspired by the Parthenon—Notre Dame du Haut at Ronchamp—"Corbu" achieved a magnificent oneness of these opposites that has large permanent meaning, including for people's lives today.

Caroline Lecourtois
Professor and Researcher, National School of Architecture of Paris-La Villette, France

Designing Ecological Urban Shapes

Architecturology is a scientific french field of research in architecture that is developed at MAP-Maacc Laboratory and which scientific paradigm anchors in cognitive sciences and design sciences.

Specific to the field of architecture, Architecturology offers a scientific systemic language that explains how shapes and mesurements are attributed to the architectural and/or urban space. It primarily serves to implement research methods by which examining cases of architecture and urban space, with the aim to explain the cognitive operations undertaken by designers to conceive their forms.

This paper will present an outline of these research methods implemented to understand the ways in which it is possible to design ecological spaces. It will build on previous works which draw kinds of identity cards on the possibilities to consider ecology in giving shapes and mesurements of future space. These works decorticated pionneer texts of Sitte, Cerdà and Unwin and show that, even before an awareness of issues related to environmental protection and sustainability, theories of urban design took into account this dimension. They also explain how Hammarby Sjöstad, GWL terrein, the neighborhood of Vauban and Bedzed were eco-designed.

The aim here is to present a study on current typically French cases of eco-construction, composing a new unpublished research.

Methods of collecting and analysing data will be explained, and the first results will be presented. It will show how the requirements and perspectives of regional policies are involved in the design, what are the mechanisms for judging architecture developed in these cases and what are the preferred cognitive operations of designing ecological architectural and / or urban space. It will also identify the mechanisms of collaborative design involved in these cases and the computer tools used to assist the thinking of eco-design.

Shanshan Li
PhD Student, Politecnico di Torino, Italy

User-participation –
An Essential and Practical Way to Flexible Housing

The idea of user-participation has drawn increasing attention in flexible housing design and using in recent years.

This paper is both an analysis and case study on user-participation in flexible housing development in the context of both Europe and China. Flexible housing are defined here as permanent houses which can be designed and built as well as altered conveniently according to users' demand.

User-participation has a strong impact on flexible housing. The paper starts with the necessity of user-participation in flexible housing. It presents a study which attempts to clarify the ways of user-participation by separating participation into distinct stages. To be specific, the paper tries to compare the guiding principles, specific approaches and beneficial practices of user-participation in whole life of flexible housing. Focusing on the context of Europe and China, it tries to learn between different contexts, and gives some ponderation of the relevant problems.

The paper concludes that flexible housing needs users' participation, and the user-participation requires higher degree of management, coordination and communication. The spirit of innovation as well as dedication is also necessary.

Shuenn-Ren Liou
Associate Professor, National Cheng Kung University, Taiwan

A Comparative Study on Álvaro Siza's Architectural Works in Asia

Álvaro Siza is regarded as one of the most significant architects in the world. In the year 2005, Siza began his architectural design in Asia. Nevertheless, research and discussionon Siza's architectural workremainmajorly on his works in Europe and America.Although there are some individual reports on Siza's activities and works in Asia, it lacks of systematic investigation and analysis, not to mention cross region comparison. As anarchitect withgreatrespect for natural landscape and local tradition, the modification and/or transformation of Siza's design idea, thinking, and makingfor Asian cultures and regions will constitute important issues of exploration in architectural history and theory.

This study attempts to explore the design thinking and methods of Siza's architectural works in Asia through a systematic analysis and comparison. Seven of Siza's recent works in Asia are selected as subjects for study. They are: AnYang Pavilion (2005-2006), Mimesis Museum (2006-2009), Amore Pacific R&D Center (2007-2010), and Jeju House (2009-2010) in Korea; Niki Hotel & Spa Arasaki (2008-) in Japan; TaiFong Golf Club House (2009-) in Taiwan; ShihLien Chemical Office Building (2010-) in China.

Generally speaking, Siza's architectural works in Asia can be seen as a continuum of those of his works in Europe. The seven works show the common characters of Siza's design thinking, methods, and ways of handling construction and materials, e.g. the delicate arrangements of the simple geometric volumes under various conditions of sites, the ingenious introduction of natural light to interior space, the minimalist attitude to the sue of materials and joints. Nevertheless, what deserves attention is that, through further analysis and comparison, this study extends the existing architectural discourse and thus deepens our understanding about Siza'a creation. Moreover, it clarifies a number of emerging issues which are critical to Siza's architectural design in Asia, including the evolution of geometry, the application of open space, the manipulation of V shape, the typology for natural light, and the tectonics.

Pasquale Lovero
Professor, Università IUAV di Venezia, Italy

Requisites of Architectural Languages in the Case of Scientific Types of Design Procedures

The paper belongs to the area of interest of "Architectural theory" – one of that foreseen for the Conference.

As architects know, for producing projects of architecture there are two series of *types of design procedures*: the "ideological (experimental)" one; and the "scientific (non-experimental)" one. More or less connected with this double series of types of design procedures, there are two series of kinds of projects of architecture.

Every type of design procedure needs the adoption of components of the most suitable architectural language.

In general, "ideological" types of design procedures aim at pursuing 'innovating' solutions on the plane of content and *above all* on the plane of expression, while "scientific" types of design procedures aim at pursuing 'already known' solutions on the plane of content *as well as* on the plane of expression.

How these two statutory aspects condition the requisites of the various architectural languages? The paper will deal with the ways of these conditionings in the case of "scientific" types of design procedures, by using a semiotic terminology.

For "scientific" types of design procedures *too* the definition of appropriate architectural languages mainly depends on the architect's capability of controlling the play among "degrees of freedom" and "constraints". This play involves *differently* the plane of content and the plane of expression.

The paper will try to outline the effects of this play in the "linguistic" order and the "discursive" order which constitute every architectural language.

The topic point of the paper will be explained by means of disciplinary examples.

The paper will be integrated by a short bibliography.

Marta Magagnini
Researcher, University of the Studies of Camerino, Italy

City Scans for an Emotional Survey Formula: Walking, Stumbling, Detecting, Drawing, Measuring and Mapping

City centres are not only made of historical real estate to observe and construe to preserve: the real-experience of a place -"from inside"- involves all the five senses; as a matter of fact, there are many temporary elements to be fascinated or disturbed by, or just to be beware of, that must be considered before any planned action. Urban planners are used to design on a stated urban map, they watch the sites as if looking down from an air-plane; but this kind of view is not interested in the comprehension of how the citizens dwell and live the city.

Even if architecture is a structural part of the city, another art considered the city as the representation of its dwellers: the silent American comedies are the most impressive works which have been able to show the city as the chaos caused by its inhabitants. The city - where Buster Keaton, Chaplin or Harold Lloyd were continuously stumbling - was a vaudeville of running cars, overhead beams, dumped objects one could trip over. Their city is still currently the factual city, even if their representation was mostly neglected as a mean to understand the inner soul of a place. Nowadays the dream of a perfect organisation has failed: architects are called to act as anthropologists and detect (not foretell) human behaviors inside the city.

The proposed paper is meant as an account of the didactic and research experience carried out during a course of Urban and Enviromental Survey, for the School of Architecture and Design of the University of Camerino (Italy): from the theoretical approach to the results obtained by the students. The training was not merely based on technical measuring instructions for drawing visible architectural facts, but it consisted in facing a series of specific analysis related to the sensible aspects, which can be detected in the city centre of Ascoli Piceno.

Yasser Mahgoub
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The Impact of Building Legislation on the Transformation of Architecture in the Gulf Region

The built environment found in the Gulf countries has passed through rapid changes and transformation during the second half of the 20th century with an astonishing speed. These changes were the result of economic wealth generated after the discovery of oil in the region that initiated major urban development schemes to improve the quality of life and urban environment in these countries. Urban master plans were developed to transform the traditional settlements to modern cities and communities. The master plans introduced urban and building legislations that transformed the traditional settlements into modern urban environments. For example; they introduced building codes that promoted the "villa" as a prototype to replace the traditional courtyard house, the self contained neighborhood to replace the extended connected and expanding traditional settlement, wide asphalt roads for automobile to replace narrow pedestrian alleys or *fareej*, the roundabout to replace the traditional *saha*, and they ignored social and climatic considerations that generated and formed the social spaces of the traditional settlements. This transformation had impact not only on the configuration and quality and of social space but also on the opportunities for social interaction between people. This paper argues that urban and building legislations have major impact on the quality of social spaces due to the fact that they must be adhered to by planners, architects and designers. They constitute a major element in the shaping the social spaces in the urban environment; buildings, streets, neighborhoods and cities. This paper investigates the impact of urban and building legislations on the configuration and quality of social spaces in Gulf countries as an example to their impact in other parts of the world. The paper traces the transformation of Gulf cities from traditional settlements to modern urban environments during the second half of the 20th century and the impact of urban and building legislations on this transformation. It compares between the experience of Kuwait and Doha as exemplary cities from the region. The paper argues that social interaction taking place in a social space is conditioned by physical spaces designed by planners and architects according to specific urban and building legislations. These legislations are critical elements in the production of social space and social interaction opportunities. The paper proposes that research in the field should address the impact of urban and buildings legislations as an important vehicle for the production and change of social space. Research should address specific elements of the legislations that impact, positively or

negatively, the formation of the social space. They constitute a key element in our search for a meaningful change.

Vladimir Mako
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Light as a Metaphor of Dwelling:
A few 20th Century Examples

The aim of this paper is to explore a few interior concepts, which appear in early twentieth century architecture, which express an idea using light, objects that produce light and pictorial representations of it as a particular metaphor underlining the ethical consideration of dwelling. In this context we can find, among other examples, almost identical architectural expressions in the work of Gaudi and Taut, using old symbols regarding cosmic dimension of eternal circulation of light or lux perpetua. This and other consideration of light as the central idea of dwelling and family life, reflects on social values of a particular ethical understanding of architecture developed on the threshold of the two centuries, especially in Germany. It is interesting that in the examples which will be presented this idea becomes the essential one, and it finds many other parallels in the twentieth century architecture.

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Countering Totalitarianism:
The Reconfiguration of Monumentality in Post-War Rome

Just outside Rome, along the Via Ardeatina is the site of an abandoned mine that saw the revenge killing of more than three hundred Italian partisans at the hands of Nazi soldiers in March 1944. This atrocious event is commemorated with a monument/mausoleum that keeps alive a collective memory of Italy's Fascist past. The Monument and Mausoleum to the Martyrs of the Fosse Ardeatine was the first architectural competition of Rome City Council following the liberation from Fascism. Completed un 1951 to the designs of the Fiorentino Group, and artists Francesco Coccia & Mirko Basaldella, the memorial is a combination of architecture, landscape and art that acknowledges the complex ambiguities present in the commemoration of past Nationalist regimes. It is both a symbol of Nazi brutality and a recognition of Italy's own national identity as former Fascist state and German ally. Paradoxically, it also renders permanent an event intended to be erased by its perpetrators who dynamited the mineshafts immediately afterwards. The subsequent exhumation, identification and placement of the bodies within the memorial shifts the concept of martyrdom, central to both Catholic and Fascist culture, to another level of consecration within a post-war democratic context and today can be considered as a form of counter-totalitarianism in the vein of Picasso's Guernica and Eisenman's Holocaust memorial in Berlin. Visitors are greeted by a decorative barbed-wire gate and a statue representing the martyrs. They are then led along a path that re-traces the martyrs' experience in the mineshaft and then brought into a walk-through tomb finally emerging in a lush, green landscape. The erasure of uncomfortable and difficult National memories is thus foreclosed through a poetic reformulation of monumentality as a spatial integration of art, architecture and landscape into a powerful experience.

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"I would prefer not to":
The Image of a Sustainable Architecture

Using Herman Melville's short story "Bartleby the Scrivener: A Story of Wall Street" as a point of reference, this study will examine the position of the architect in contemporary practice and politics of architecture. This notion of politics is related to the ideas of sustainability and environmental ecology in the moment of crisis. In this regard, a crisis illustrates a period that provides the conditions necessary to question the existing methodology and well established practices of architecture. In this sense the architectural project (theory and the practice combined) is a medium for the evaluation and the exploration of the ecological aspects of design. According to this notion of the architectural project, this study attempts to analyze and criticize image of sustainability generally accepted in architecture. In other words, this study aims to examine a notion of withdrawal of design practice from a striving to achieve an environmentally acceptable solution of architecture, which is why this kind of practice causes the current crisis in design ecology. This notion of crisis causes architects, developers, economists, and politicians to rethink the way of doing things and to implement new views on the nature of aesthetic experience of architecture. In this respect, an architectural crisis is not economic, but political and social. In other words, issues connected with sustainability in architecture are not related to design decisions, but rather\ driven by political manipulations of public discourse. According to this idea, some architects involved in sustainable design practice "prefer not to", which is to say: They take the easy way out by using one of the main topics available on the scene (community, building's footprint, and demand for irreproachable sustainability) as a suitable excuse for imposing their projects, which are ignorant ofthese problems. In this study, the problem of "intelligent building" and "environmental culture" will be pivotal to the critique of contemporary practice.

Through this process, this presentation will shed new light on politics of architecture in Alejandro Zaera-Polo's work "The Politics of the Environment: A political Critique of Materialism". In order to justify the importance of different categories of envelope in the architectural practice, Zaera-Polo focuses on the political meaning of the sustainability. This presentation will explore the environmental impact of the Yokohama International Port Terminal in Yokohama, Japan – designed by Foreign Office Architects (FOA). In this context, the terminal building resembles the

artificiality and shell structure (inside space enveloped with green and wooden membrane) of the cruise ships, which dock in the port to complete the global and detached experience of the Yokohama Port Terminal. This aspect of naturalization simplifies the ecological issues in design process and creates a *simulation* of sustainability.

Jorge Canastra Marum
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Maria Canteiro Neto
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The Place of Photography in the Architecture Education. Culture and Process

Constantino Mawromatis
Architect, Assistant Professor, Universidad de Chile, Chile

Placemaking as Common Ground for Diverse Alternative Town Planning Approaches

Neo-traditional town planning and design has been since its early days a retrieval of universal values of placemaking adapting the good design of historic cities, thus focusing on human scale, slow pace mobility and diversity, both, in respect to mixed uses and building types. Nonetheless, it has also been the center of debate and controversy due to its commitment to historic references in its architecture and to a seemingly acquiescent attitude towards prevailing real estate development with its implicit results and effects.

Despite these critical views on the neo-traditional movements, there are some timeless principles that transcend their arguable affiliation with historic styles that are so often referred to by their critics as pastiche architecture. These principles deal with a depurated attention to proportions, details and relationships between buildings, and buildings with public spaces, offering a quality environment to the community, opposed to the unanimity of residential developments in suburban settings. Places like the Coeur de Ville's Grande Rue in Le Plessis Robinson, Brandevoort's De Veste, Poundbury's rich sidewalk network and its Pummery Square, the diversity of public spaces in American towns designed by Duany & Plater-Zyberk, and even the pictoresque Jakriborg's main square are some of those public places we long for in contemporary suburban developments, and whereby the neo-traditional trends are known to excel.

Those public spaces represent the quality of design, which is the most significant contribution of neo-traditional town planning and a tacit common ground with other contemporary urban design currents that do explicitly reject the rather nostalgic aura of the historic based imagery the first ones call for. When contrasting the placemaking of some neo-traditional towns and some of the most innovative experiences in urban design, like the Swedish *Symbiocities*, one can conclude that there is a common ethical and pragmatic approach towards a real alternative to the predominant suburban sprawl.

Fabiano Micocci
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Athens as a Geographical Artefact: Envisioning a New Productive and Social Landscape in the Thick Topography of the City

The urban landscape of Athens is characterized by a horizontal multi-layered structure, resulting from a practice of accumulation of architectural interventions. This organization had been determined by the ground and its topography as unavoidable local features of the site, regulating its development and influencing social and political traits. The informal sector and the absence of political intervention have driven an unlimited sprawl and the dominance of private spaces (institutional, commercial and residential) against the creation of collective spaces. The absence of a political and democratic intervention in the city have been the most relevant cause in the realization of what today could be consider a city a of individuals rather than a city for a community.

In this situation urban settings become progressively blurred and camouflaged. The actual difficulty of description and comprehension of each specific location within the city, leads to the use of topography as a design tool. Topographical approach provides a description of the complexity of reality in a phenomelogical way, and can be used as an operative model for urban design. The ground floor is the level of social relations, urban administration, economical management and collective occupation and is strictly related with the regional skyline. Through topographical practice the ground floor of a city can be intended as a unity of objects, functions and forces in action that create a network of horizontal relations spread on multiple layers. This "thick topography" can become a model for a renovated horizontal, democratic and ecological environment bringing a natural use of soil and resources, while stimulating the development of local identities and communities, as well it redefine aesthetic values embedded in a continuous skyline that links the city to the extended surrounding landscape.

Today Athens can be considered a wide scale geographical artifact with regional relevance with new aesthetical and collective meanings. Discovering the beauty of the city means to envision a new hybrid landscape that can drive towards new methods of intervention, requalification and revaluation of whole region.

Deborah A. Middleton
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Making Riyadh Modern:
C. A. Doxiadis' Ekistic Design Strategies for Urban Growth, Change and Continuity

Constantinos A. Doxiadis (1913-1975), a Greek architect and urban theorist continued to develop and refine his theory of Ekistics, throughout his lifetime. This paper presents recent research on Doxaidis' strategic master plan for Riyadh, Saudi Arabia (1972), reveals a significant advancement in Doxiadis' thinking and rational application of Ekistics design strategies and tactics since the formulation of the Islamabad Pakistan urban plan 1960 appreciated for its clear articulation of the Ekistics Dynapolis Model. The background to the Riyadh commission to design a new urban master plan is presented, followed with the identification and analysis of the principle urban design strategies Doxiadis employs. The three principle urban strategies employed are; *Firstly*, an urban design strategy to formulate the macro spatial structure is devised to enable rapid urban growth and future change; *Secondly*, the precise design tactics for imbedded spatial heterogeneous neighborhood units based on the hierarchical system of Ekistics' community classes within the broad-brush application of Ekistic mega structure; and *Thirdly*, the detailed design strategies for Action Areas is unique as a sequential connection strategy that integrate new and old urban fabrics. The action area plans transition the spatial form and structure of the existing city to align with the new 2 km x 2 km grid, establishing clear separation of automobile and pedestrian movement within the historic city center, and defining a sequential design shift in spatial fabric morphology. My argument asserts that an evolution is evident in Doxiadis' Ekistics thinking to formulate a rational approach to achieve the spatial integration and synthesis of historic and modern spatial forms. The case of the strategic plan for Riyadh also raises questions as to the importance of historic cities and contextualism in Doxiadis Theory of Ekistics: A Science for Human Settlements. The Doxiadis Ekistic master plan for Riyadh is a previously unknown and important example of Postwar rational modernism. It has reformulated Riyadh's urban form as a modern capital city and demonstrates how Ekistic design strategies control the spatial form of the city under conditions of rapid urban spatial expansion and change.

Paul Mihai Moldovan
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Drafting. Network. Code

From time immemorial until the Renaissance one could not separate architecture from its education. Although there is evidence that architecture was discussed from antiquity by such important thinkers as Plato in Ancient Greece, Vitruvius in Ancient Rome and the master builders (Villard de Honnecourt, Mathes Röriczer, etc.) in the Middle Ages, there are no suggestions of formal courses taking place anywhere.

The Renaissance brought the first, from a series of three dissociations (Tschumi, 1995) in the field of architecture: a schism between practice and theory. The following dissociations occurred under the auspices of their own socio-cultural revolution (Choay, 2006), leading to 'the moment of architecture's undeniable flourishing' (Koolhaas, 2006), yet paradoxically also the moment of its undeniable self-dissociation. One can acknowledge this moment as the fourth socio-cultural revolution: the Digital Era.

Despite the fact that we talk about three major dissociations, the way that architects have learned and worked changed significantly only after the 'digital' began to influence the architectural society. It did so not only by replacing the old tools with new ones but by influencing architectural thinking as well. Since the field has never been as dissociated as it is now, the paper is to examine the way architecture is taught and learned in this advanced technological era.

This paper accordingly proposes a three part methodology of architectural education, unconsciously practiced, in the digital age 'drafting|network|code' in order to outline a possible first association. The methodology relates to the way that digital mediums are used and have impacted the architectural society: drafting relates to new tools, network to one of the main aspects of architectural education in this era - its ever more intimate relation with the profession, while code will emphasize the most significant aspect of the Digital Era that spans from the digitization of existing book stocks to the creation of the computational design studios.

Marietta Monaghan
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Building a City in the Wilderness: Hospitals at Alabama Power Company Construction Camps

In Alabama a new phase of development began with the damming of the major rivers for the production of hydroelectric power by the newly-formed the Alabama Power Company (APC) beginning in 1905. They constructed worker housing camps which grew into villages complete with wives and children, churches and stores. The workers were moved from one jobsite to the next as APC completed construction or expanded their operations.

This presentation describes the variety of architectural provisions for a particular program, health and disease prevention, at four Alabama Power Company worker villages constructed during the 1920s in Central Alabama. Typically the first hospital was only a first-aid station, but a more suitable structure was provided as the camp population grew. Over time and as new camps were constructed, there were several different hospital iterations to meet the needs of the changing camp populations, technological advancements in disease prevention and equipment upgrades.

It is possible to document the architectural changes at these dynamic sites and to understand them as evidence of patterns of life and work in a remote area, all supporting rapid, efficient industrial development. The hospitals served both black and white workers and even non - employees; they changed in form and layout as the needs of the resident population changed, reflecting the variations in the type and numbers of the work force present at each camp.

The hospital locations are compared as to configuration, site placement and materials of construction, in an effort to illustrate the evolution of the APC's goals for the most efficient and productive designs. The majority of the input for design changes seems to have come from the director of medical services, Dr. S. R. Benedict, who oversaw a stable of company physicians and also directed the sanitary provisions at all the APC construction sites and employee villages.

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An Environmentally Conformed Settlement in Salve (Lecce, Italy) A Model of Bioclimatic Approach, Energy Efficiency and Environmental Sustainability in the Mediterranean Sea

In accordance with the growing towards the research of innovative and environmentally aware modalities procedures for the efficient Heritage recovery in the Mediterranean area, and in line with the European directives and the Italian legislation on environmental sustainability and energy efficiency, this paper aims to show an architectural experimentation in response to the three "R" and three "M" indicated by the United Nations Environment Program: Reduction of harmful emissions, energy consumption, and resource consumption, as well as maximization of renewable resource use, durability of interventions and environmental compatibility of the components. The object of this study is an excellent example of historical minor architecture, a small eco-settlement in the town of Salve (in the district of Lecce, in the deep south-east of Italy) that from the top of the *Serra Salentina*, facing the Ionian and the Adriatic sea welcomes hot and cold winds. It starts with a careful analysis of the climatic, human and cultural components to propose an eco-friendly solution, enhancing the shape factor and the distributive and functional character of the building. The project takes advantage of the bioclimatic archetypes already part of the building, such as the existing underground oil mill, becoming a place for the pre-treatment of the air or the court and the garden, giving the complex a higher degree of porosity and opening for natural ventilation. These existing structures are integrated with new elevations constituting real wind towers for the air extraction and ducting. The example proposed, in its systemic harmony, shows a possible approach for the realization of a high energy performance, as it reduces environmental and economic costs and preserves a more complex and complete reading of the territory.

Sam Moshaver
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Implementing Inclusionary Zoning into Canada's Affordable Housing Market

Housing is an integral and important element within a health society. The lack of affordable housing threatens many aspects of our lives such as health, education, job opportunity, community and economic development, immigrant integration and social inclusion.

Although Canada is one of the best-housed countries in the world, which is supported by a well-developed mortgage system, a sophisticated development sector, access to safe building materials, there are still 1.7 million households in Canada who live in inadequate, unsuitable or unaffordable housing. Over the course of 20th century, governments have made a number of communities in providing affordable housing. Nevertheless, Canada has an incomplete housing system, which privileges household in ownership sector and discriminates against low-income households stuck in the declining low end of the rental sector.

Inclusionary zoning can be a new tool to help the Affordable Housing market in Canada to meet its objectives while creating inclusive communities. After 30 years of exposure, inclusionary zoning has been evidenced as an effective tool in the production of affordable housing units for low-income households. Nevertheless, the same tool can have different effects on different cities under different circumstances. Through an examination of the affordable housing market in Canada and 4 case studies of Inclusionary zoning practices in the U.S., this study made 6 recommendations to consider as it develops its own Inclusionary housing policy for Canadian Affordable Housing delivery.

Andrea Monteiro Vicente
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Miguel Santiago
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Education through Architecture

The starting point for this research work is the thesis that architecture should be the basis of education. On an analogy with *Education through art* of Herbert Read, we will defend and support this thesis, building bridges between thinkers, educators and researchers, namely, by converging the theory of complex thought of Edgar Morin, the studies on multiple intelligences and creativity of Howard Gardner and the theory of progressive education of John Dewey.

We faced doubt when we try to integrate architecture on a discipline group classification. It is a social science, or a natural science? Maybe it's both, i.e. apply, use and belong simultaneously to both classifications. Vitruvius also describes this *architecture is a science adorned with many other disciplines and knowledge.* Integrates knowledge of natural science with knowledge of the social sciences, models the territory in response to social demands. It is art but is also technology, is the convergence of interdisciplinary knowledge, destroys disciplinary boundaries and builds transdisciplinarity. Thereby architecture has the ability to integrate the aesthetic expressive experience, the technical operating knowledge, the deductive analytical knowledge and the normative ethical self, reunifying the art, territory of complexity with science, territory of simplification. And is this capacity that interest us, instead of *creating possible realities* like art, it *creates real possibilities* - architecture.

Terry Moor
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When Least Is Most – A Lesson in Minimal Shelter

Waste is the product of excess. Excess is that which we obtain as opposed to what we actually "need" in order to lead a fulfilling and comfortable life. In the elective course Vernacular Architecture, there are various objectives, but one of the most important is to teach our students the precise meaning of need. In the current culture of the developed world, mainly Europe and the U.S., excess has become the established and accepted norm.

In this course, there are numerous lectures relating to climate, how it affects design and low-tech strategies for coping with it. Other lectures focus on a spectrum of basic, natural and locally found materials used in construction – earth, stone, wood, bamboo and reeds/grasses. There are lectures on function and how it has become more involved and complex than in earlier days and how communities developed naturally before the automobile. Additionally, students study and report on a wide variety of precedents from the shotgun house in New Orleans to underground villages in North Africa and China.

The final project is one of survival, which involves the most basic of human needs. The class is divided into teams of two and each team is hypothetically left isolated in a distant and remote part of the world. In order to explain the circumstances surrounding their situation, they create a scenario, which details their circumstances. With minimal tools and by using the technologies learned in class, they are required to create a shelter that will allow them to survive for a year. They are expected to take advantage of any materials they can gather on or near their site and build this shelter in response to climate. Terms relating to programmatic elements such as living room, dining room, kitchen or bathroom are replaced by purely functional titles like cooking, sleeping, working and resting.

Through this exercise, students are challenged to be resourceful, to understand and adapt to climate and use the materials at hand. Their designs usually begin as rather grand structures, which allow us to address what one actually requires. The objective is to take "architecture" back to its roots, the basic shelter, so they must pare down their ideas to demonstrate what is truly necessary to sustain life through their found resources.

By delving into that which is required, one has a starting point by which to measure excess. Obviously, none of us wants to live under purely survival conditions, but it is important to know the baseline for human existence. Once we venture into that area beyond real need, waste becomes only a matter of magnitude. This course teaches our future architects, not

only economy, wholesomeness and the beauty of simple yet thoughtfully designed structures, but an appreciation of the true meaning of need.

Nik Nikolov
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Use of Environmental Parameters in Façade Design with Photo-Catalytic Concrete

Today environmental issues and political pressures for our industry to contribute more to sustainable development continue to intensify. While the architectural profession sees its future in the interplay and balance between the natural and built environments, it is increasingly poised to establish a functional interface between them. Influenced by the wide use and dependency on software and numerically-controlled fabrication technologies, complex forms are often evaluated through performance criteria that emphasize the environmental and structural parameters that shape them.

The paper documents the research conclusions, design methodology, and development of a prototype for an exterior wall paneling system which utilizes proprietary self-cleaning photocatalytic cement panels (TioCem®). Photocatalytic cement uses daylight to react with and neutralize common air pollutants such as nitrogen and sulfur oxides, carbon monoxide, and VOC's. Research into photocatalytic cements has been progressing for over ten years and this emerging technology offers building professionals a renewed opportunity to contribute toward sustainable goals while improving value.

By pairing environment-based algorithmic design and innovative materials, the paper's bias is that the mitigation of the adverse effects of energy transmission through the building envelope starts with the earliest possible incorporation of model data from site conditions into envelope design.

The developed method of design is performatively modeled utilizing data from site conditions as a means of customizing each particular cladding panel variation to its location. One type of data used comes from the site's longitude and latitude, which in turn is linked to data describing predominant wind directions, and hours of daylight. Another type of data describes the preferred orientation at a chosen site, which also corresponds with a predominant/desired view. As the parametric model is subjected to various data sets, a range of possible performative possibilities and optimized solutions arise. The algorithm takes advantage of the sun position data published online by the National Oceanic and Atmospheric Administration.

The paper additionally comments on the limitations of the discussed environment-driven method of design and on the opportunities for use of inherent materials properties.

Buildings can consume up to 40% of primary energy and 72% of electricity consumption - each of building's energy demands is closely related to the building en¬velope, and can be decreased with efficient envelope design. In climates where the exterior temperatures exceed the desired indoor temperature for extended periods of time, the sensible envelope design and choice of exterior cladding is imperative.

Riitta Niskanen
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How to Save the Memory – The Case of the Round Tower in Vyborg

Vyborg is a town behind the present Finnish eastern border. During the centuries it has sometimes been part of Sweden, sometimes of Russia. When Finland got free from the Russian regime in 1917 Vyborg became the second biggest town in Finland.

In the 16th century the Swedish king ordered to reinforce the medieval fortifications of Vyborg. A round cannon tower was built to protect the main gate of the town. The defensive meaning of the tower decreased during the centuries, and in the 1860ies the fortifications were began to pull down. Also the tower was ordered to be demolished but it was saved, maybe because it was useful as a storehouse.

In the beginning of the 1920ies a local architect Uno Ullberg realized his dream to change the tower to a restaurant. He wanted to open the closed place to the citizens and make them to love their history.

The Renaissance style restaurant was opened in 1923. The Round Tower gained enormous success. It was immortalized in innumerable photographs, paintings and songs. The Round Tower became a symbol of Vyborg.

In the Second World War Finland lost parts of its eastern areas. The evacuees from Vyborg were ordered to settle to Lahti, a small town in southern Finland.

The lost home became the evacuees a keen object of longing. They began to record its history sincerely. In 1979 they got an idea to build The Round Tower in Lahti. This was never realized but the virtual building produced a wide polemic.

In my paper I study old and new meanings and values of The Round Tower and the copy, the forms of architecture the building plan got under the public pressure, attitudes of the architects, and also racism which rose towards the people who had come from Vyborg.

Emil Osorio
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Moved by Water.
The Architecture of a "Minga" in Southern Chile

The event of moving an existing building by water is part of an old tradition of collective work in Southern Chile's fishing villages. Behind the classic scene of a house towed away by boats -known by the word "minga" after the combined effort that it implies-, there is a whole silent preparation which includes, amongst other tasks, performing a series of sailing adaptations on the building's architecture prior to its journey through the channels. Although these adaptations appear as a critical step to undertake when turning a building into a floatable structure first -and into an actual ship afterwards-, they have been kept as a mystery even to the people who are able to witness such an event. The particular case of a minga in the Huichas archipelago is revised here in order to show how local craftsmanship can influence some conventional views on architectural technology when adjusting to both changing environments and demands. A comparison with other minga schemes from either different locations or sources is also established with the aim of finding similarities and particularities that help configuring the basic architecture of this traditional method for moving a house. Moreover, the scope of this report is set on the integration of all planning, construction, and sailing skills that are required for taking an entire building from one place to another without damaging it. A further revision on both technical and logistical aspects is intended, so that learning outcomes from minga's craftsmen duties -specifically- become a useful contribution in subjects such as timber construction, portable dwellings, water houses, and even prefabrication. General figures but also detailed images from the Huichas' minga are provided in order to support the above statements.

Yasemen Say Ozer
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Nevzat Oguz Ozer
Associate Professor, Mimar Sinan Fine Arts University, Turkey

The Architecture of the Ancient Theatre of Caunus City

Serpil Ozker
Assistant Professor, Dogus University, Turkey
Elif Suyuk Makakli
Assistant Professor, Maltepe University, Turkey

The Comparison of the Space Usage in Turkish Cinema from Past to Nowadays

In this study, the spatial analysis of Turkish cinema is observed from 1940 to nowadays by analysing totally 250 films. Living conditions that change from past to present also affected the space usages in cinema by creating different formations of space. There were villas and shores in old Turkish films, but nowadays cinema sector uses different presentations. To make a detailed analysis 2 films are selected, "Güller ve Dikenler" (Roses and Thorns) from pre-1980 period and "Mutluluk" (Happiness) from post-1980 period and space usages are researched and compared. In this context this reserch focused on how to use the space in Turkish Cinema today and in the past and also set out the differences.

Ilker Fatih Ozorhon
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Reflections of Modernization in Turkish Architecture in 1950's: The Case of Cinnah 19

The aim of this study is to understand the changes in architecture and socio-cultural fields emerging with the modernization in Turkey in 1950's through a building that offers new perspectives in the Turkish architectural practice of this period. Modern Architecture in Turkish Architecture within the period of 1950-60 has become popular for the second time after 1930's and has played a major role in the development of Turkish Architecture afterward. It can be claimed that the architecture of 1950-60 is a milestone for the modernism adventure of the Turkish Architecture. 1950's are the years that Turkish Architecture has reached its features of being globalized and future-oriented in the way of a productive settlement with modernism By the end of the Second World War, as the economic- politic tension outside Turkey began to decline, it is observed that a change has started in Turkey's domestic political environment. 1950's can be called as a period, in which the modernization changes its direction in Turkey. Cultural modernization axis of the early Republican period has shifted towards an economy-oriented conception of modernity. Transformations within the country and social mobility brought about important changes. Increasing industrialization, urbanization and modern life phenomenon in the 1950's, caused an increasing need for housing. An important and didactic building in this period in terms of housing production is Cinnah 19, which was designed by Nejat Ersin in 1958 as a cooperative housing in Ankara, Çankaya in a prestigius area, where apartment buildings newly arose. It is a building in which the principles constituting Corbusiers Marseille blocks are applied, in other words, where the canonical order is reconsidered. In Cinnah 19, equal units are created and each individual is treated equally, and unlike the usual cooperative buildings, the units are arranged in the form of dublexes to have the feeling of a home. Overflowing front balconies are the expressions of a structural originality in the building, which has a flexible use. While this building shows us how different designs can be formed within the building regulations, through the formation of its facades, it exhibits an attitude aware of privacy brought by the position of the layout. In fact, the original attitude here provides an original contribution to the freedom of life by its different interpretation of apartment life in the new capital city that is the symbol of modernization.

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A Research about First Design Studio (Fds) in Architectural Education

The Design Courses constitute the main structure of architectural education. These courses (Basic Design, Design, Architectural Design Studio, Architectural Design I ...) that the students meet in their first year have critical importance as they form a background for subsequent design education and processes. These courses take place in different names in education porgramme of architecture departments from university to university. In this study, these courses will be referred as First Design Studio (FDS) as it is intended to create a holistic view. The research will generally be done through achitecture education in Turkey and "Design" course in the first year programme at Özyeğin University Department of Architecture will be discussed as the case study. There are 69 Architectural Department in Turkey, 21 of which are located in İstanbul. In context of FDS, It can claimed that different methods are applied in Architecture programs and even FDS describes an area in which they determine the identities and education targets of programmes. Different approaches of architecture departments designate there is not a common attitude in terms of the content of FDS and its position in the architectural education that have great importance for the students to understand the design process and design component, to develop design skills and to denote with different tools. In this context, firstly, general architectural education and the design courses in architectural education will be examined. Later, the first design courses of architectural students will be analysed by titles such as scope-prgramme-aim of course, place-importance in architectural education and comparison with other selected universities. Finally, Özyeğin University case will be discussed by sampling student works in FDS in architecture department in 2012-2013. There will be a questionnaire with students at the end of the course and critics will be done on the results of the questionnaire. As a result of the study, useful data will be obtained for the Architectural education which have a large diversity in general and for Architectural Education at Özyeğin University in particular.

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Non-Staircase Multi-Family Houses

Multi-family houses are not too big residential developments with stacking apartments. Due to the layout, multi-family houses can be divided into point, segmental, linear and planar developments. According to the way of providing access to the building, multi-family houses can be usually divided into: staircase buildings, corridor buildings, houses with gallery access or buildings with mixed access system. Non-staircase buildings, without common staircases, corridors or galleries, should be also added.

The historical prototypes of them include primarily stacked up duplexes and fourplexes. Apartments in these houses generally had separate entrances from outside and a garden area.

The above mentioned features of multi-family non-staircase houses are still valid. Small scale of the developments, functional independence of the apartments and gardens assigned to the apartments cause that the comfort of living in them is close to living in single-family developments, and at the same time the use of the area is much more effective. The compactness of the body facilitates energy saving.

In multi-family non-staircase houses it is possible to get an efficient, and at the same time stiff, resistant and geometrically unchangeable construction system, which is of particular significance in the areas endangered by coal mine damages. Additional assets of non-staircase houses, from this point of view, include limited dimensions and compactness of the body, regular layout of crossing walls and the possibility to get multi-axis symmetry of the plan.

The assets of multi-family non-staircase houses were confirmed by projects that have been carried out under the supervision of the author of this article: stacking fourplex and sixplex houses were built in Mikołów and Dzierżoniów and stacking eightplex houses were built in Ruda Śląska.

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Tourism-Dominated Spaces – Hotel Lobbies seen as Spatial Strategic Drivers

Today, tourism has become a crucial factor in urban economies, and the extended presence of tourism facilities within the urban fabric has generated a new basis for planning decisions. However, the phenomenon of tourism has primarily been discussed by sociologists, ethnologists, geographers and not least economists. The architectural voice in the general tourism-related discussion, in a very wide sense, has been relatively vague.

The aim of this article is to discuss the potential of a specific tourism programme, namely the hotel lobby, as a spatial strategic planning tool in urban transformation processes.

From a qualitative architectural point of view the article examines two different types of lobbies: the resort-dominated (from Miami Beach) and the business-dominated (from Downtown Los Angeles), respectively. These two lobby typologies demonstrate different versions of 'extraordinary' tourism-dominated spaces (as opposed to 'ordinary' everyday-dominated spaces).

The article addresses the phenomenon of tourism at a very local planning level, and introduces the concept of 'positive interference'. Positive interference is understood as the friction between tourism-related and everyday-related activities and is launched as a 'potential desirable quality' of the tourism-dominated space.

Overall, the article points towards an untapped strategic potential of specific architectural tourism programmes.

(This article is rooted in theories presented in the PhD-dissertation *Tourism and Strategic Planning* which was defended in October 2012).

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Architectural and Structural Development of Tall Buildings

One of the main reasons for development and expansion of tall buildings around the world through the past decades was the cost efficiency of the construction of this type of building, particularly in dense cities. This growth could be due to the availability of more rental areas with less environmental damages, land use and more day lighting. In this paper, based on the technology development in architectural and structural realms, the expansion of tall buildings is studied from the appearance of this type of building (19th century) to the current situation (by the end of 2012) architecturally, structurally and historically. In this paper, regarding the previous studies, the history of tall buildings will be divided into three main categories; dominance of architecture, dominance of structure and re-dominance of architecture in tall buildings and based on the study about 73 tallest buildings built by the end of 2012, the future trend of architectural and structural considerations of tall buildings is predicted. In the part of the dominance of structure in tall buildings, the main lateral loads based structural systems are briefly illustrated and introduced.
(Because of apace limitation, it cannot be possible to have the buildings' figures explained in the paper.)

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New Public Spaces in the Historic City Centre. The Verdi Theatre Area in Padua, Italy, as a Case Study

The theme of this paper is the design of new public spaces and new building types in the historic center of the city. The method adopted is based on analyzing the history of the city to understand the urban morphology, considered to be the memory and image of the community.

The physical specificity of the urban form is the result of its spatial structure. More than political, social, and economic systems, which are important but not sufficient, reasons for its special nature can be found because of its constancy. Planning new buildings starts from understanding the context, that is, its overall physical structure, and this is especially so in the historic city center.

The teaching on the Architectural and Urban Composition 2 and 3 courses at the Department of Civil, Environmental, and Architectural Engineering at the University of Padua examines basic 1960s studies concerning urban morphology and typological analysis carried on especially Aldo Rossi. The theme of the spatial aspects of public spaces is specifically investigated by studying the formal image in the transformations of the city as the starting point for designing new architecture and housing.

The Verdi Theatre area in Padua is one of the subjects investigated by the students, used as a case study because it was a reference point for the community in previous centuries. The area was an opportunity to redesign the lost unity of a historic part of the city: here the order and hierarchy of the elements that characterize the form of the place have experienced significant alterations since the Second World War. Progressing from the study of how the area has evolved through time, students had to define new proposals for the area that involved testing new building types

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Reviving of Contemporary Masonry Structural Design

Back to 8000 B.C. until the eighteen century, masonry was the one of the most prevalent construction material and development of masonry arches, vaults and domes were the most important innovation in the history of architecture. Its durability, stability and constancy to different climatic condition have preserved this method for the centuries and spread it through the world. The expansion of industrial revolution highlighted the steel and concrete and faded the masonry from the construction industry. New productions of eighteenth century reduce its role as structural and protective elements to infill and sub-divided materials. During this period, except few architects such as Antonio Gaudi and Rafael Guastavino who showed innovation in masonry structural design, rarely any novelty has been integrated to contemporize the traditional methods of masonry construction. Despite of some few recent attempts in reviving the masonry construction, they are limited in developing countries and low cost buildings and the capability of masonry is underrated in structure and architecture as the durable and sufficient material which can spread in contemporary construction.

This paper offers reviewing the advantage of masonry construction and tries to research on its restoration in the present-day architecture with the help of an experience which is taking place in Polytechnic of Turin in the form of masonry construction workshop. This paper is presented in three chapters; first chapter will talk about the benefits and proficiencies of masonry construction. It will discuss about the capability of this method according to the requirements and condition of contemporary construction. Second chapter will present the recent attempts in reviving of masonry buildings and innovative methods for optimization and masonry efficient design. The final chapter is about the method of applying masonry construction in present times regarding to the current social and architectural requirements. It will explain the workshop experience in masonry construction, in which the group tried to apply the social meaning in the designing and construction process. The goal of this workshop is reaching the free form masonry vault based on the team work and values of workers as the craftsmen.

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Daylighting Inside Glass Box: Responsiveness of Interior Design to External Façade

A modern glass box building can be considered as a structure inside one full window or a building with elevations composed of only windows. Greater height of window from floor provides deeper daylight penetration into the space. In case of curtain wall, i.e. all windows, the glass area near the ceiling permit daylight to penetrate more deeply. The introduction of drop ceiling (to accommodate concealed lighting and HVAC systems) in most of the offices in Dhaka blocked the upper portion of the glass surface near the structural ceiling, and allow daylight penetration through the glass surface near the floor. This approach of interior design is not sensible to the factual principle of glass box building that advocates maximum utilisation of daylight to recover the extra cost associated with cooling/heating the interior space. Using daylight simulation programs, this paper examines the impact of drop ceilings on indoor daylight illuminance on work plane height at a typical office space contained in a glass box building. Daylight simulation was performed in this study by creating the virtual environment based on the information of an existing urban office building located at Dhaka, Bangladesh, a tropical location, with predominantly overcast skies. The 3D models were first generated in the ECOTECT to study the distribution and uniformity of daylight in the interior space with split-flux method. These models were then exported to a physically-based backward raytracer, RADIANCE Synthetic Imaging software, to generate realistic lighting levels for validating and crosschecking the ECOTECT results. The results show that daylight entering from different sides of the glass box building is affected vastly near the periphery of the floors by the design of drop ceilings, and influence the overall illuminance and luminance distribution to the interior. The eradication of drop ceiling near window by intelligent design, e.g. 'L' shaped, corbelled, sloped, concaved and convex edged drop ceilings, is capable to allow more daylight into the space, increased sky view and, therefore, reduce the negative impact of drop ceilings on blocking daylight to reach the deeper part of the interior. This paper presents the importance of responsiveness of the interior design to the concept and principle of exterior architecture by highlighting the disagreement between curtain glass wall and drop ceiling as a simple case that is common in many modern office buildings in Dhaka and other cities

in the world. The responsibility of architects for creating building form and facade sensitive to interior design, and vice versa, is vital. It is expected that the findings of this paper will help architects and interior designers to conceptualise the benefits of the integration and agreement of interior and exterior design in architecture, quantitatively, in terms of daylighting and visual comfort.

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Interdisciplinary Perspectives in Architectural Research

If it is true that only specialization can provide a deep knowledge, it is also true that this same expertise, combined with a lack of dialogue, tends to create isolated areas of knowledge, to annul the relationships between the various disciplines and to encourage forgetting of areas whose autonomy is not clear.

Interdisciplinarity emerges as a fundamental experience. It will contribute not only to define the specific disciplinary process' variables as well as to the specific disciplinary identity. Moreover, interdisciplinary relations can come themselves to be as areas of study – new disciplines (like in science happens so far).

The aim is to look at architecture from the exterior establishing relationships from different points of view. For instance, inquiring architecture from the music perspective: how and in what ways can we speak about "composition" in architecture? Relationships from lexicon or concepts analysis can also be established. The use of words harmony, rhythm, symmetry, etc., has different meanings in each discipline. But how strong is that "different"? And relationships may relate to conceptualization, formalization, materialization, presentation, pointing out asymmetries in interdisciplinary relations.

A reflection on architecture may also come from establishing historical moments when relationships between architecture and other disciplines – and with which disciplines – are more or less formalized; finding out whether in contemporanity architecture is seeking for other subjects and why points out an interesting perspective. The way interdisciplinary relationships change thought times is also of major importance in understanding changes in the broader cultural/intellectual paradigm as well as how authors (architects, musicians, mathematicians) express the same cultural paradigm in different languages.

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Evaluation of Residential Satisfaction in Urban Renewal Project Navvab

Living in satisfying environment is important for individual's well-being. The well-being is the product of positive integration between person and the context and encompasses the adaptation and attachment to the place. When there is congruence between the person's self-image and the outputs of the environment, that environment would address to user's expectations and as a result will satisfy him/her. On the contrary, if the user cannot adjust himself/herself to the environmental setting, it would increase the level of stress and deteriorate the occupant's well-being. However, in urban renewal projects as the result of changing the structure of the living space the spatial and social structure of the place alters as well, in the cases that the residents' psychological and social needs are not taken into consideration, the users are incapable of adjusting themselves to the context and lose their attachment to the place. This is the fact that has occurred in Navvab Renewal Project in Tehran, Iran. In this project by implementing the new urban renewal system in the old and traditional district the whole system has changed significantly and irreversibly and renewal has resulted in the fading of belonging to the place and loss of cultural, social and spatial cohesion. This has influenced the dwellers well-being, most of them moved from the neighborhood or the others who had no other choice than staying there, are dissatisfied. This paper unveils contradictory issues following the demolitions of the residential buildings and housing transformation and the main criteria, which are chosen, are: residents' satisfaction and their well-being through a theoretical analysis of the terms place attachment, adaptation.

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How to Evaluate the Quality of Architecture

Phenomena in architecture are recognized very individually. To discuss and to understand other views and to accept these we need a common basis. Evaluating architecture by dividing it into
- objective methods
- subjective (individual) values

in conjunction with basic thoughts of value benefit analysis can offer the necessary transparency for that.

Quality means to fulfill the demands that a user is asking for. Evaluating quality means to measure the level of fulfilling the demands. For a specific building this is always specific. This depends not only on the shape, but especially on function, construction and economy too. Beyond that the aspects space and place, integration in the broadest sense, time and especially the human beeing are very important for architecture.

The quality of an object is affected by the processes over all phases of the project too and by the influences of the acting and affected people (subjects).

Evaluating architecture needs to pay attention to the following aspects:
1. object (function, space/place, technics, shape, integration, economics, time and human being)
2. project   (phases und processes)
3. subjects   (acting and/or affected)

This structure has to be developed further until criteria are available that can be measured and valued.

Most evaluating systems for buildings like DGNB are oriented to a special goal. But for architecture in a comprehensive sense we have to notice the following points:
- We need to reflect many representative aspects, wheras nowadays the shape dominates other more important things.
- A general scheme of values for these aspects cannot be defined, because every object has its own, specific conditions. But we should define what and how to mesure.
- A scheme for weighting is used especially to open the process of evaluating for transparency, understanding and acceptance. This enables a discussion. The method of evaluating is here in the foreground and not supporting a special view on to or idea of architecture.

Using polar diagrams the quality of buildings can be shown and compared very well.

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It is Imperative to Merge Sectoral Efforts to Solve Urban Environmental Problems and Pursue Opportunities in Cities

The problems of the cities are an early warning signal of a more deep-seated crisis, which will force us to rethink current models of urban development. Of course, not all cities suffer from identical problems, given their different spatial, economic, and social functions and geography. But they have much in common.

Addressing the problems of urban environment requires going beyond sectoral approaches. However useful and necessary the setting of targets for urban air quality, water quality, noise etc., and proposed solutions to urban problems such as traffic, open space, blight, preservation of cultural heritage and identity, etc., are, these efforts, in and of themselves, has fallen short of the urban sustainability if not have shifted the burden from one urban problem to another. Thus, a wider view of their origins and an integrated approach to their mitigation are prudent.

This means addressing not just the proximate causes of urban degradation, but examining the social and economic choices, which are the real roots of the spatial problems is necessary.

A comprehensive approach to urban problems may entail efforts beyond the local scale as well, since regional policies have direct or indirect influences of varying degrees on the individual urban entities. There is a need to make sure that these influences are fully recognized and controlled. Nevertheless, the primary focus for action to improve the urban environment is clearly the Individual city, but achieving major Improvements will require action at the regional level as well.

However, it Is Important that the various sectoral policies in:

Urban Spatial Structure;

Urban Transportation;

Urban Energy Generation and Use;

Urban Waste Management;

Urban Historical Heritage; and

Urban Natural Environment (Water, Landscape, and Land); and take due account of the problems of the urban areas and converge into a regional strategy for all cities.

This paper attempts to identify possible lines of action in these sectors and seeks critiques of them. Thus it is a call for debate and reflection on its claim that "it is imperative to Merge Sectoral Efforts to Solve Urban Environmental Problems and Pursue Opportunities in Cities."

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Tradition and Modernity in the Regional Architectural Landscape in Mexico in the Late Nineteenth. A Case Study

To understand the appropriation of space and the urban environment, the architectural phenomenon has an equally important role, as it is incorporated into the historical discourse through keeping close dialogue with the cultural history of the social, either by it function, by the role that society assigns, for aesthetics adopted, or by those who legitimized it in a given period. Also, due to decisions made by planners of space, in many cases built volume is transcended by the urban phenomenon. Also, due to decisions made by planners of space, in many cases built volume is transcended by the urban phenomenon. They are then urban transformations that lead to value the means or resources that uses architecture, ie, forms or styles of communication speaking as an expression that runs between those in power and secondary sectors.

Therefore, in this line of urban phenomenon inseparable from architectural phenomenon, I proceed to exhibit at this conference the colonial heritage that survived and prevailed in the urban structure and built volume of the most important regional city in Mexico in the late nineteenth: Orizaba, from its founding as a town way up to Porfirio Díaz regime (1876-1911), a period in which the architectural dimension was discussed between tradition and modernity, even on the national stage of the Porfiriato local elites were determined to modernize the city's image.

During the course of this paper are given proper place to the natural aspects of the valley, the structural importance of the Camino Real in its passage through Orizaba that connected Veracruz port to Mexico City, the squares as a hub for the different powers and those that articulated trade and everyday life. In this highlights, efforts worked in a more cosmopolitan image during the Porfiriato, adopting an amalgam of European architectural styles in public buildings while colonial houses dominated the urban landscape.

To reflect on this issue, I set a theoretical and methodological dialogue between the housing census of 1895 and 1900, also an important collection of vintage photographic images that show the traditional physiognomy regional city, dotted with these outbreaks of constructive modernity.

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The Representation of Virtual/Real Architecture and Perspective Space

The present abstract summarizes a didactic project arranged for high school students to introduce them into the way to represent architecture with perspective and the related mechanism of space perception. Such project was then really tested in three classes of an Italian school. The main demand of this design was to assume a wider theoretical frame by linking scientific approach (visual perception) and artistic expression (perspective, architectural painting). This interdisciplinary character involved also the didactic methods (Pc experience, drawings, urban survey, trials).

The project was developed in a structuralist path in which each step was basic for the further advance. So first the classes were able to recognize the phenomenon of vision as a space model that can be formalized with the optic cone in a classroom experiment. After that it was possible to lead the students to a school trip when they could copy a perspective urban landscape on a transparent plexiglas board and realize the rules that drive the vanishing and the tracer points.

Through the composition of these two outcomes: the principle of the optic cone and the empiric perspective the classes could face an interesting PC experience. The teacher prepared in fact a photogrammetric reconstruction of an architectural building depicted in a Renaissance painting. Then he created a file that related the drawing and the architecture in 3D model so the students could understand the rules of scientific perspective. Finally they were so able to drawn a perspective scheme of their school building to verify what they learned.

The final result was so the applicability of architecture and architectural environment as a valid source to open mind to a more conscious and analytic consideration of space and a tool to develop abstract thinking (point at infinity) and formalization of experiences through representation (drawing).

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Le Corbusier: of the Plasticity of Excess

An underlying theme in *Vers une architecture* is the synthesis between images which embody the *Zeitgeist* of the first machine-age and universal formal values otherwise known as constants. Before the publication of *Vers une architecture* Le Corbusier travelled abroad in search of supposed universal truths embedded in the architectures of the world, sketching and ultimately searching for a language of form that is beyond the mere incidentals of personality, period, place and style – a constant. This fascination continued when he moved to Paris in 1916 where he together with Amédée Ozenfant pursued a *Purist* art that brought constants, which then Edouard Jeanneret believed to be universal, to the front of the canvas. Le Corbusier's thirst for recurring formal tendencies continued decades later as he developed *The Modulor* which he hoped would become a universally applicable tool for ensuring 'good proportion', proportions derived from nature in which for him constants also exist. The proposed study will investigate the philosophy behind the notion of *constants* in architecture as portrayed by Le Corbusier in his seminal literary work *Vers une architecture*. Through critical analysis and review of literature, the paper will seek to establish that Le Corbusier considered *measure, geometry, rhythm* and *regulating lines* to be constant universal commonalities shared by the great architectures of antiquity. Furthermore, the study will examine seemingly polarized works by Le Corbusier, namely the Villa Savoye (1929) in Poissy and the Chapel of Nôtre Dame du Haut in Ronchamp (1954), and will conclude that there are indeed constants in his own architecture, with the right-angle being one of the most notable manifestations.

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Lighting Design a Natural Part of Architecture with Strong Connection to Important Goals in Society

Methods used for lighting design have a surprisingly strong connection to important goals in society of public health [Pauley 2004] and to the protection of animals, plants and ecosystems [Gathreaux & Belser 2006]. This put high demands on the development of a process of lighting design towards high fulfillment of these important goals. Lighting design is a process of 4 basic steps. Step one) the space; step two) the user; step three) the design of daylight and the complementary artificial light; step 4) the design of the practical application [Säter 2012]. The lighting design process (LDP) can be performed in many ways. The user centred lighting design process is focused on the support of the individual and give, when in use, the individual user a strong support from light, psychologically, physiologically and visually. The energy efficient lighting application should not be designed in a way that contradicts other important goals. The use of the energy efficient lighting design process (EELDP) handles the fulfillment of goals for energy efficiency, visual comfort and light-related health in a way that do not stay in conflict with the different goals. In order to protect animals and plants from negative effects from the use of artificial light the eco lighting design process should be in use [Säter 2012]. The development of the lighting design processes is based on basic principles from research in photobiology that is interpreted into the lighting design process [Brainard &Hanifin 2005, Wirtz- Justice & Fournier 2010] and is still in a state of development. When more is known about action spectrum for specific wavelengths and about negative effects from the use of artificial light in both indoor and outdoor environments, the processes of lighting design (UCLDP, EELDP, and ECOLDP) will be filled in with more details.

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Emperor's New Architecture: The Role of Wireless Communication in the Construction and Mediation of Space

Wireless communication has a growing importance in the way we connect with people and places, and its infrastructure is increasingly present in our environment. This constant transmission of wireless information is forming a new spatial layer of presence. Free Wi-Fi in public space acts like an invisible canopy. The contemporary networked pervasive technology contributes to a spatial change, intensifying the way people engage with places.

We are organising the space with technology. This space is public, or at least shared, as technology is used here to enable communication and exchange. Like every other public sphere, this space has its architectural and political characteristics. On the architectural side, we recognise the way wireless communication flows through the space, the intensity of propagation and obstacles to the network infrastructure. On the political side, we have issues of ownership, control and security, as well as participation and accessibility by different parties. The current debate in both fields often overlooks everything outside the instrumental use of waves. I would like to propose a different approach, one that engages with the presence of wireless signals in an innovative rather than conservative way. Treating wireless signals as aesthetic phenomena, I will try to offer a design perspective on the presence of wireless signals in the space.

In a series of physical prototypes of spaces that interact with wireless signals in their surroundings, I explored interactive micro-environments that dynamically reshape according to the input from specific parts of their surrounding. Working on the line between parametric design and interactive architecture, the purpose of these experiments was to model spaces according to the presence of wireless Internet and other communication signals. This paper will discuss several of these interactive micro-environments, demonstrating the possibility to use wireless signals as a parameter in shaping of spaces.

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Comparison of the Architectural Design Processes of Prescriptive Approach and Performance Approach

Architectural design process is complicated and many (sub) problems have to be solved in that process. In a prescriptive design process, owner of the building and the architect generate the building program. This program contains the functional, economic and timing requirements which are the basis of developing of a building design. Architect designs the building which meets the requirements and the engineers design the static, electrical and mechanical systems. Most of the buildings are designed to meet the minimum criteria's such as budget limits, time management, functional requirements and energy regulations. In this process typically, buildings which meet the minimum criterias are designed.

In the performance based building design process, criterias that are expected from the building are generated by the broader participation of the people who are related to design a building. Performance targets are the guides of the generating this process. Criterias that are expected from the building are determined as performance targets and the design is made to meet these targets. Thus, the design provides the satisfaction of the owner of the building, the design team and the prospective occupants of the building. One of the main problems of the performance based building design process is to foresee the real performance of building in the design process. Without knowing that, whether the performance that is expected from the building is met or not cannot be known. For this foreseeing some calculations and simulation tools are used.

In this study firstly, the prescriptive approaches of the architectural design process are explained. Different definitions and concepts of prescriptive process are discussed. Then, the main concepts of performance approach of the architectural design process are identified. Finally a comparison will be made between those two different approaches and the benefits and the challenges of the performance based building design will be itemized.

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The Field in the Object

The work of the digital design practitioners in the field of architecture over the last twenty years has been primarily through the use of the virtual - destroying the material object, surface geometry - ignoring mass and volume, and mass component fabrication - dissolving the monolithic. These issues are supported in the essays of the early digital design theorists and practitioners such as in Greg Lynn in his book *Animate Form,* where architecture is not considered static, but behavioral and in Stan Allen's essay *Field Conditions* in which architecture is discussed as strategically deployed component distributions. In contrast, the aim of this article is to demonstrate the possibility of the systematic processes of computation in design to be directed towards the development of the architectural object that considers mass and a dynamic balance of spatial volumes. This is explored through the experiments conducted in my first year architectural design studios and architectural design research office from 2010-12 that consider not only the behavior of the objects, but also the behavior of the subjects:

1. *X,Y,Z House*, a first year design studio course:
A small domicile developed from assemblies of the fundamental elements of points, lines, and planes distributed by rules sets.

2. *Animated Form*, a graduate level elective course:
Full-scale tactile objects developed from a systematic approach to material assemblies.

3. *Massimals*, a design research project:
1:1 design objects that serve as prototypes to examine how physical form can engage the public realm. These constructs are abstractions of animal forms built in the manner of massing studies produced in an architectural design practice. The suggestive forms and their specific arrangement imply docile behavior similar to animals in a petting zoo augmenting the way visitors approach and engage built form.

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Shopping (&) Center: Retail Building Typology or New Urban Component of Contemporary European City?

If the city is not anymore what it used to be, neither is its public space. Following the emergence of a new urban condition, other outstanding elements appear nowadays as meaningful places of the metropolitan landscape, in addition to the traditional network of public spaces.

This phenomenon, common to most European urban areas, is today materialized as an hypertext of recreational and retail facilities — such as stadiums, shopping centers, industrial showrooms or multi-purpose arenas — that structure a network of uses of a post-urban culture, condensed in time and scattered in space.

Amongst them, the shopping center is not only one of the most striking elements of contemporary city, but also an entity — somewhere between a building typology and a "quasi"-urban component — where notions such as "public" and "private" or "non-place" and "place" are challenged by the hybrid nature of these architectural element.

And today shopping centers are, in fact, more than just mere sites for consumption. In the scenic environments of its "streets" and "plazas" — like in the historic and compact city — we wander, eat, drink, rest and consume symbols and merchandises. So visiting them is, today, not so different of going to the "center".

Evidence of this is not only the fact that, on average in Europe, a citizen visits a shopping center approximately every 3 weeks, spending 1 hour and 30 minutes, but also that this visit is, only in 25% of the cases, made with the intention to purchase a specific product.

So, besides being formulas that have changed the way we use public and private urban space, this building typologies are, most of all, new urban configurations — accumulating the condition of being both places of consumption and centrality in contemporary metropolitan regions — that we cannot continue to ignore when putting into perspective the European contemporary city.

Angeliki Sioli
Ph.D. Student, McGill University, Canada

The Re-writing Hi-story Project; or Running a Studio for a History Course

Engaging the example of the "Re-writing Hi-story" project, a small-scale design studio for a lecture-based history course at McGill University,[1] this paper discusses a different way of dealing with the teaching of history in Schools of Architecture. Challenging the common pedagogical assumption that studio and history courses are usually unrelated, the project focused in activating the relationship between the way the students perceive and contemplate history and the way they deal with the contemporary architectural reality. The core intention was to explore a way of making the historical background more relevant to the actual architectural questions that they are interested in, as they design, experience or think about architecture nowadays.

Following from Flusser's understanding that man's historical consciousness emerged with the invention of writing, the students were asked to write a short essay after every week's lecture, foregrounding connections between the lectures' historical material and contemporary architectural matters. After the production of seven different essays and individual weekly desk-crits for discussion and feedback on their writings, they were asked to choose one of the essays, and think of a way to communicate its message, always in writing, to the broader audience of the School or the people of Montreal. They had to think where and how to write this message, in a way that was appropriate for the content of the message itself, in terms of scale, medium, and location. They had to design that very writing.

Partaking from the project's final results, the student's observations and faced difficulties during the process, this paper contemplates on how encouraging them to understand history as a framework of orientation that can give guidelines and set precedents for practice nowadays, helps students to develop a language of their own and tell their 'stories', as they act architecturally and realize where they stand historically.

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[1] During the fall semester of 2011 I wrote and ran the "Re-writing Hi-story" project, for the history course *Architectural Intentions from Vitruvius to the Renaissance* that is taught by Professor Alberto Pérez-Gómez in the School of Architecture at McGill University.

Shuang Song
Master of Architecture (Research), School of Architecture, Tianjin University, China
Yukun Zhang
Professor, School of Architecture, Tianjin University, China
Sinan Yuan
Lecturer, School of Architecture, Tianjin University, China

Experimental Research in Urban Spatial Cognition by using Virtual Reality Technology[1]

Recently, the development of three-dimensional (3-D) computer graphics and related technology has led to a blurring of the distinction between reality and virtual environment. This suggests the validity of virtual reality (VR) technology as a tool for urban research. By using VR technology, it's possible to examine enormous objects, such as urban space, experimentally and analytically. Moreover, VR technology provides urban researchers new opportunities to investigate aspects of spatial cognition, memory and behavior in urban environment.

This paper presents an innovative VR experiment that aims to reveal how people construct the spatial map in mind, generate spatial memory and respond when they exploring the urban environment. Xidi, a typical Chinese natural settlement, is selected as a research sample. Taking this real town as the prototype, we build up a virtual experimental environment which only retains its spatial cues, and insures the non-spatial cues, such as road signs, crowd activities, plants, would not affect explorers. The experiment has four main phases: (1) recruiting participants to experience the virtual street space; (2) tracking and recording participants' movement through VR system; (3) reconstructing participants' itineraries according to their memory; (4) describing the spatial characteristics of the town by questionnaires.

Based on the experiment data, the research examines how the space impacts on people in terms of generating spatial memory and producing the corresponding behavior pattern during the exploration. Furthermore, the interaction mechanism between the urban evolution and human behavior is investigated by comparing the participants' behavior trajectory and the real town functional structure.

The results of this experimental research put light on the future use of VR technology as an efficient tool in cognitive urban research. Some recommendations are made to the researchers.

James Spiller
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The Ghost in the Machine

The central question facing architecture today is one of identity. According to Alexander Tzonis, architecture is isolated from the cultural mainstream and is faced with the greatest identity crisis in history. Constantly shifting societal priorities and cultural perspectives demand a redefinition of practice and education radically different from what has been traditionally accepted[1].

'Machine' was the first of four projects issued during the spring second-year architecture studio. It was meant to both bridge and challenge on multiple levels: within the curriculum and at the level of practice, culture, and the individual. The aim of the project was to suggest linkages within the studio sequence while questioning standard methods of practice and modes of representation. Setting aside the obsolete, myopic pursuits of formalism, functionalism, and postmodern relativism, students were asked to design and construct, at full-scale, an apparatus to physically engage and measure an intangible, phenomenological condition: fear. In each test, students questioned their own mental states, physical indicators of these provocations, and upon analysis, refined the experiment. The process was one of invention, frenetic problem solving, and self-discovery. Through the process, the academy's failure to deal with current critical realities was exposed, as students grappled with the proliferation of materials; new methods of manufacture, assembly and construction; novel modes of analysis; phenomenological conditions and human behavior; and collaboration rather than the primacy of individual genius[2].

The project typified the constant, dynamic change that defines our current cultural landscape and engaged the student within the complex social, economic and ecological issues we increasingly confront. Unintentionally, it generated a discourse within the college about the continuity of curriculum and the appropriateness of nontraditional approaches. Ultimately, it challenged the role of the architect, both in education and practice, demonstrating the value and potential in architecture to remain vital, critical and innovative.

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[1] Alexander Tzonis, 1969. "The Last Identity Crisis in Architecture", *Connection* (Spring)

[2] Peter Buchanan, 2012. "The Big Rethink: Rethinking Architectural Education", *The Architectural Review*

Ewa Stachura
Professor, University of Economics in Katowice, Poland
John Dee
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Contemporary Housing in Poland: Product versus Preference

This paper explores housing preferences in Poland. Housing is important to the quality of life in the contemporary society. It not only satisfies personal needs but also security, shelter and social status. In an age of globalization urban living space is becoming a standardised commodity of consumption in many countries throughout the world. This has led to urban designs solutions that are not always sympathetic to local cultural and climatic conditions. It is imperative that research be focused on the contemporary housing environment particularly with respect to user preferences relating to urban design, building types, architecture, inter alia, in various settlement categories. The systemic economic transformation that began in Poland over 20 years ago has brought rapid change and a significant increase in housing development. Hence Poland represents a *macro-case-study* for researches in architecture, planning and urban design. The most critical issue to confront the twenty first century concerns the global economic and environmental crisis. For this reason there is a need to understand sustainable consumption in an urban environmental context because of its fundamental importance for the developing appropriate policy responses. This paper, therefore, will seek to answer questions about housing preference trends in local housing markets and how these preferences align with standarised housing products preneted by a globalised housing industry. The research draws on rich data derived from a survey of user housing preferences: namely – location, single and multi unit dwellings, occupation, maintenance costs, neighbourhood aesthetics, community building, recreation, accessibility, housing quality and design and many others. The paper will conclude with ideas and insights into consumer housing preferences and will contribute to understanding urbanism in a time of environmental and economic global change.

Nopadon Thungsakul
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Kunlasri Thungsakul
Assistant Professor, Khon Kaen University, Thailand

Approach for Contemporary Rural Housing Prototype Design

In 2011 the National Housing Authority and the Faculty of Architecture, Khon Kaen University have performed a collaborative research in order to search for appropriate housing design in rural region of Thailand. Because of rapid changes from various developments, the research has focused on lifestyle alterations reflected in rural housing which later have been aspired to develop appropriate concept and design. The proposed design would be residential prototypes that correspond to environmental, economic and socio-cultural factors affecting the people in study area.

In order to find a suitable solution for contemporary house prototypes, several methodologies were applied including the analysis of relevant documents, field research, observation of domestic activities, focus group interview with local residents, participatory design and workshop with community residents and interdisciplinary researchers, and searching design idea from architectural design competition. The field research explored various aspects of the development of rural housing from traditional houses to recent houses.

Findings have revealed the development of rural houses styles and the direction of changes in present contexts such as the inhabitants' attitudes, lifestyles, social norms and value, domestic use of spaces and construction technique and materials use. Behavior of rural inhabitants has still distinctively related to an agricultural lifestyle, while the attitude on design and types of construction materials has been changed. They have still maintained social values through the meaningful usage of domestic spatial pattern. The research findings were integrated into a design of housing prototype through participatory process. The design was emphasized on the flexible design that can be adjusted to suit the families' social and financial conditions. The house materials are both local and industrial-produced. Moreover, the design must be tropical climate responsive with local identity and can be related to contemporary lifestyle in the rural area.

Alexandru Tiotiu
PhD Student, Technical University of Cluj-Napoca, Romania
Adriana Matei
Professor, Technical University of Cluj-Napoca, Romania

Methods of Identifying the Historical Centers Values and Their Potential for Future Development

The study aims to analyze the historical centers of European Capitals of Culture or historical centers from UNESCO World heritage list, in order to identify their potential for further development. The historical centers gather the community identity (local or even national) by its unique space organization, holding together the community's architectural and spiritual landmarks.

The city needs an organizing strategy of the built environment that includes the historical area of the city.

The proposed method for identifying and cataloging the potential of historical centers lies in finding the adequate criteria for analyzing the case studies.

The method supposes to create a grid that contains on the horizontal line the diachronic evolution of the monument and on the vertical positions the value criteria. These are:

- Historical value – it refers to the authenticity of a building or space and its ascertaining value;
- Commemorative value – it refers to monuments, places, memorial houses (intentional or unintentional);
- Functional value – it refers to the coherence between the initial and the subsequent destination of a building;
- Environmental value – it refers to natural factors that influenced the organization and development of the city;
- Volumetric value – it refers to spatial peculiarities of the built environment;
- Contextual value – it refers to the harmonization and integration of the built environment in urban context;;
- Urban value – it refers to urban tissue, to its morphology, to the city's silhouette and to the street system as a development factor;
- Strategic value – it sums up the spatial and memorial values with related strategies from particular elements that can lead to further development of the city;

These criteria will be emphasized on a case study: the Vauban citadel of Alba Iulia, Romania;

Anthony Titus
Assistant Professor, Rensselaer Polytechnic Institute, USA

Hybridized Pedagogies:
Architectural Education in Motion

In the 21st century, experiments in architectural pedagogy are beginning to look towards the hybridization and the merging of the sciences, arts and humanities. The blending of these boundaries is now allowing us to see architecture as a body of knowledge that participates in a long-term and deeper transformation of place. Cultural questions of otherness, difference and foresight are necessities, at a moment in time when intense expansions of populations and values of diverse groups are coming into greater conflict. The current challenges and crises, which permeates the culture of architectural education, is due in large part to a world, which is shifting more quickly than our educational models can keep up with. This crisis of a quickly changing world is increasingly becoming at odds with the relative slowness of architectural education.

New models of pedagogical structures are beginning to emerge, which are moving with greater flexibility and speed, and are allowing for a greater inclusiveness of questions that are crucial for architecture to begin to understand and engage. Some of these new educational experiments are emerging as smaller programs nested within larger established institutions, such as Colombia's Studio X, while others are forming as autonomous, ground up initiatives, such as, Arts Letters & Numbers and Architecture In Motion (A/IM). These institutions and a number of related experiments are beginning to provide supplemental or alternative visions of how architecture can be taught at the early part of the millennium. These new institution are looking to models of lightness, fluidity and speed, as a means of addressing the pace of contemporary society. The societal, environmental and philosophical precariousness of our time is transforming the typical role of the architect, and has forced us to rethink the way that we teach the discipline of architecture.

Nina Toleva
PhD Student, UACEG, Bulgaria

Parameters VS Algorithms – The New Urban Paradigm

This paper focuses on two contemporary architectural and urban movements – Schumacher's Parametric Design and Watanabe's Induction Design. Both the Parametric and the Induction design are in tight relation with the currently active Complexity paradigm and self-organization concepts, and are distinctive for their intense use of specific morphogenic software. Thus they themselves serve as powerful instruments in the process of creation of the new millennium urban Utopias.

Induction design acts as an "extension of the brain" and gives precise solutions (entirely based on specific assessments and calculations) to numerous complex architectural, urban and environmental problems. Parametric Design, on the other hand, could be described as an "extension of the hand" and its primary task is to organize and to articulate the increased complexity of the modern society by setting strict rules for morphogenesis.

As both trends operate on all design levels, from interior to urban planning strategies, we cannot help but wonder if any of them has the required qualities to become the next great style and to form the new design paradigm.

The author has conducted a study of the two trends, which includes exploration of their emergence, history, socio-cultural and scientific context, principles and methods, and thorough examination of multiple examples of their application. As a conclusion from the study and the comparative analysis, the author proves that despite their apparent similarities, the Paramatric and the Induction Design have not just different characteristics, programmes, methods but also face different problems and thus provide solutions.

Norsidah Ujang
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Linking Walkability and Place Attachment to Tourism Places in the City of Kuala Lumpur, Malaysia

Tourism places as the main income generating areas should be highlighted as pedestrian (tourist)-friendly and walkable environment. This will intensify the tourists' magnets and focal elements in the city and increased attachment to the places. Tourists make an intensive use of many urban places, facilities and services but little of the city has been created specifically for tourist use. In view of the lack of concern as to how to provide quality and memorable walking experience for tourists, the study identifies issues regarding walkability and pedestrian experience of selected tourism places. This paper examines the walkability of tourism places in Malaysian cities and its relationship with place attachment dimensions. It analyses visitors' needs and satisfaction of the places gathered from questionnaire surveys and interviews conducted with visitors in the city centre of Kuala Lumpur, Malaysia and linking the data with their level and form of attachment to the places. The findings indicate that walkability associated with pleasantness while walking and the degree of accessibility affect the visitors' form of engagement with activities and functional attachment to the places. The emotional attachment is strongly associated with the ability of the places to evoke memorable image and identity particularly areas with strong historical and cultural attributes. The findings highlight the effect of walkability factors on tourist' attachment to the city functionally and emotionally. There is a need to increase the pleasantness of pedestrian experience by improving qualities associated with walkability which include pleasantness of walking and degree of accessibility.

Zeunep Tuna Ultav
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The Fictional Representation of Modernist Urban Concentration in the Work of J.G. Ballard

The main aim of the study is to display the ways to develop new means of understanding of consequences of modernism, which will be constructed through an uncommon reading of fictional media with regard to architectural discourse. In this respect, the work of J.G. Ballard, a British New Wave writer, has been selected as a fruitful dystopian source.

The urban concentration, which is a distinguishing principle of modern urban planning, is one of the prevailing themes of Ballard to construct some of his New Wave novels. The scope of this study is to analyse three science fiction stories of J.G.Ballard in order to convey this modernist urban principle. *The Concentration City (1957)* displays the dystopia of an over-populated city in which there is no open space. *Chronopolis (1962)* displays the dystopia of the restriction of the use of the city by the dwellers through legal procedure. *Billenium* (1961) is another Ballardian story which conveys the restriction of the living cell to 3 m² by the 'Residential Committee' of the city when the city population rises up to 20 million.

In conclusion, the study is expected to contribute to the discussion on the theme of modern urban concentration within modernist critique. Thus, reading Ballard's work helps to develop an original point of view revealing the over-exaggerated phenomenon of urban concentration.

Bilge Ulusay Alpay
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Pelfin Gokgur
Mimar Sinan Fine Arts University, Turkey

Urban Design as a Method for the Re-Evaluation of Historical Environments: The Case Study of Besiktas Akaretler Row Houses

Historical urban environments and historical city patterns are the most important areas to reflect the city's identity. It is necessary to provide this area's sustainability and keep alive with being rescued the building wich are being city's silhouette in abandoned situation. It is most correct means to protect historical urban areas and produce urban design projects which are detailed form macroambient to micro ambient for adaptation to modern-day conditions.

In this paper," Akaretler row houses which are located in Beşiktaş"is examined.After the project which is applied in this area it is evaluated that areas accretions within the frame of urban design criterias.

Akaretler row houses which carried past's marks today with an example of civil architecture, is an important place.Row hoses which were built for the achieves of the palace in the 19th century in the Ottoman Empire and known as the Ottoman's first public houses.Now function as trade centers ,hotels and houses.Also this region has ULI Awards For Excellence in 2009 by Urban Land Institute.

Rosa Urbano Gutierrez
Lecturer, University of Liverpool, UK
Amanda Wanner
Associate Senior Lecturer, Leeds Metropolitan University, UK

Light in Ceramic Architectural Skins

This paper reports on a project undertaken in the course of the 2011-13 academic period as part of a research-led teaching initiative taking place at the Liverpool School of Architecture. The objective is to explore a new concept of sustainable advanced ceramic façade. We plan to improve the distribution of daylight in buildings by transforming the standard ceramic lattice wall into a dynamic lighting interface. So far, the use of ceramics in contemporary facades investigate an efficient combination of thermo-acoustical control, mechanical optimisation and aesthetical properties (such as colour, textures and finishes), but there is very little explored about its potentials to include the benefits of sunlight. Due to the critical ecological impact caused by lighting purposes in buildings, maximising our reliance on natural lighting has become a priority, which demands the exploration of different material and technical solutions. Ceramics offer exceptional prospects in this direction, as a durable, abundant, low-impact and less energy intensive alternative material. By means of advanced light-control techniques, geometrical analysis and contemporary digital design tools, the first set of proposals focused on shaping the ceramic surface to generate a system to capture, deflect and/or transport daylight throughout the building skin. The first prototypes of these structures have been designed, simulated, and fabricated in collaboration with ceramic artists and manufacturers. Five of these prototypes are currently being installed within a lighting scenario in the school's main gallery, to test their physical, environmental and architectural performance. The paper shows the results and potentials of ceramics for daylighting architectural systems together with their building integration.

Daniela V. de Freitas Simoes
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Reading Architecture from the Center to the Periphery

Architectural magazines in the second half of the 20th century have assumed a great role as vehicles of dissemination of new paradigms and debates – while Europe faced a difficult reconstruction and the USA established itself as a cultural and influent centre.

Although many of the so-called renowned architectural magazines have already been object of investigation, peripheral country's magazines have not. It is also in the chronological period that the defiance of Modernism and its paradigms poses also the question of "centre" and "periphery".

This paper – which is a working paper for the current Phd investigation - aims at presenting the subjects debated in two Portuguese architectural magazines – *Binário* and *Arquitectura* – in terms of assessing not only the international debates engaged within their pages, but also how these were approached, discussed and somehow, processed by the Portuguese architects despite the fascist dictatorial regime – *Estado Novo* (1933 – 1974).

Vacharee Vacharasin
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Application of Imaging Technology to Geometrical Study: Case Study of Prasat Pimay Sandstone Sanctuary, Thailand

This research is concerned with the application of geometric system to study the Prasat Pimay sandstone sanctuary using the field survey of architectural remains, satellite images from Google Earth, AutoCAD, and the 3D models and measurements generated by the Photo Modeler 6.5 program. The geometric system, a significant tool of the master builders, is employed in this paper to portray the findings. Analysis according to the universal architectural geometry method results in the discovery of an ingenious spatial arrangement in the layout, plan, structure, and forms of the sanctuary. The architectural design is of the same method found at the Prasat Phanom Rung sanctuary. The plan and forms of the entire building are achieved by skillful arrangement of a three-dimensional space using geometrical concepts, i.e., square diagram, segment bisectors, arcs, and right triangle, whose proportions of width and length are in simple relations.

Tine Van Herck
Teacher; Researcher, LUCA, School of Arts (KULeuven), Belgium

# Method for a Human based Design Process

WHAT
I develop a **method for a *human based* design process**. This means a design method that assures the social relevance of projects. It can be applied to projects of different scale : from interior architecture to landscape strategies.

WHY
What should be the attitude of a designer in today's society where all certainties threaten to disappear? How to contribute something small to society in order to create a stronger tissue, a safety net, a solid foundation. How to pursue a Joie de vivre for the users, passers and ourselves ...? What is or could be the role of the designer in our complex world.

HOW
We are developing the method by a **practice based research**. The research combines projects of our office PT ARCHITECTEN, with student and other works. At this moment, the method for **a *human based* design process** can be summarized in this diagram:
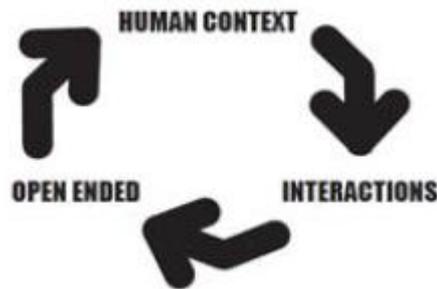
Of course the diagram is evolving. At the conference, I would like to present various projects starting from this scheme and comment on both the work itself as on the method.
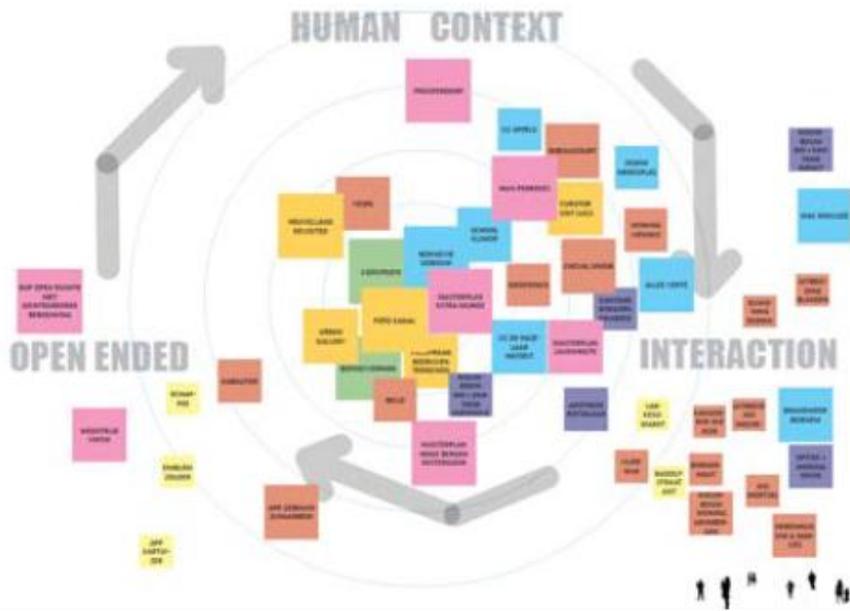
Mariarosaria Villani
Architect, University of Naples "Federico II", Italy
Luigi Veronese
Professor, University of Naples "Federico II", Italy
Arianna Spinosa
Professor, University of Naples "Federico II", Italy
Maria Falcone
University of Naples "Federico II", Italy

Rural Architecture in Sorrento-Amalfitan Coast. Constructive Tradition and Prospect for Preservation

Throughout a journey in Spain during 1930, Le Corbusier was impressed by the local spontaneous architecture, whose volumetric and geometrical lines merged later in his design production.

Since that time, the rural architecture has been object of several studies to inquire the inseparable relationship that links it to the landscape.

Within the Parthenopean framework, particular importance has the knowledge and preservation of spontaneous architecture within an environment of great landscaping value as the Sorrento-Amalfi coast, which is also characterized by a rich heritage of rural buildings that retain recurring forms, such as the characteristic "*lamia*", a rustic extrados vaults.

The local type of construction, forged by centuries of experience in the manufacture of local materials, the geographical location and the climatic conditions have led to a progressive definition of recurring planimetric distributions and spaces linked to the relationship of form and function, among them the "cellaio", the "tank" 's "threshing floor", the "oven" .

Since 1936, during the Sixth Triennale of Milano a section was dedicated to the *Italian rural architecture* minded by Giuseppe Pagano. Roberto Pane - inspirer of the Venice Charter of Restoration of 1964, in which was extended the definition of monument also to the anthropical environment - presented a photographic exhibition on rural architecture in Campania. Subsequently, in the essay *Sorrento and the coast* (1955), he highlighted the issues involved in the conservation and protection of anthropical environment of Sorrento's peninsula, where architectural peculiarity characterize the Mediterranean environment merging with it.

The paper intends to focalize the importance of knowledge of this popular heritage, often forgotten. Through direct researches that want to recognize the principal peculiarity, the constructive technics and materials, will be studied the recurring problems and the possible strategies for integrated conservation in order to identify the best techniques for their transmission to future.

Irina Ioana Voda
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Nationale Superieure d'Architecture de Grenoble (ENSAG), Romania;
France
Adriana Matei
Professor, Technical University of Cluj- Napoca, Romania
Anne Coste
Professor, Ecole Nationale Superieure d'Architecture de Grenoble, France

The Ineffable in Contemporary Architecture

Through this study it is intended the interpretation of the term ineffable in the history of architecture, its way of expression throughout the twentieth century and especially in contemporary architecture trends. The notion of ineffable is defined by energy (waves, propagation mode), atmosphere, water, air, humidity, defying the intrinsic feature of architecture - tangibility.

These elements remain rather at a sensorial level in the perception of the public, but ineffable factors become more important since modern period to the present, leading to the dispersion of the boundary between matter and void, between reality and virtuality or between architecture and the illusion about it.

Passing through the Greek concept of Chaos and Cosmos, where Chaos means disorder, fluid, unbounded, imperfect, therefore ugly, and through different stages as Middle Ages or Baroque, developing during the Organicism, Neoplasticism or Elementarism, the term of ineffable reaches an apogee in contemporary architecture through dematerialization, kinetics, sequencing, fractal, virtuality, etc...

This dematerialization involves notions like trans-apparent and transparent (the ratio between materiality and light), sequence (borrowed from the cinema) - which involves movement, speed and memory of previous sequence - real image versus virtual image, or transparent overlapped filters.

Space is expanded from inside to outside and backwards through centrifugal forces of energy, flowing through overlapped screens, until it get to a lack of guidance.

There is a change in the relations between nature and artifact, mass and void, transparency and opacity, where the intermediary phases are exacerbating, until a new "Chaos" of reality and unreality in contemporary architecture.

Serbülent Vural
Assistant Professor, Karadeniz Technical University, Turkey
Selin Oktan
Research Assistant, Karadeniz Technical University, Turkey.

Architecture of Electronic Revolution

Zheng Wang
PhD Student, Architecture School of Southeast University, China

Earth and Light Steel:
New Tectonic of Material in Chinese Neo-Vernacular Architecture

The Chinese contemporary Neo-Vernacular is experiencing the process of transforming themselves into the status which concerns more about vernacular expression, especially by material. Based on the research on two primary schools constructed in Chinese rural area, several aspects about material presence and relative tectonics are discussed to explore new possibilities that how material functions in contexts including vernacular environment, cultural background, community relationship and ecological efficiency.

Stephen Wischer
Assistant Professor, North Dakota State University & McGill University, USA

Anselm Kiefer's La Ribaute: Architectural Hermeneutics and the Space of Dramatic Representation

This presentation explores the way Anselm Kiefer's compound *La Ribaute*, outside Barjac, France, provides vital lessons for architectural thinking and doing that transcend a reductive notion of formal aesthetics or utilitarian attitudes applied to much contemporary architectural practice. Blurring conventional boundaries between art and architecture, Kiefer's compound demonstrates a *hermeneutic* approach to architectural inquiry, allowing an active interpretation of the past in the present.[1] The intertwined relationships of poetry, history and culture presented at *La Ribaute*, transcends isolated objectives, visual aesthetics and the direct *transcription* of one-to-one signs, inviting a reconciliation of architectural questions—symbolically—through *translation*.

Framed through the writings of Maurice Merleau-Ponty, Hans-Georg Gadamer, and Alberto Pérez-Gómez, the first part of my paper examines how the materiality, construction and corresponding atmospheres at *La Ribaute* allow historical quotations to emerge within the compound's subterranean passageways, towers and pavilions. The second part of my paper discusses Kiefer's work in relation to convergences with western architectural traditions, including: the monastery of *La Tourette* by Le Corbusier, Piranesi's etchings, and the space of dramatic representation witnessed in the origins of Greek theatre. This helps reframe architectural practice as the opening of a thick and reversible *depth*, which weakens sharp divisions between the real and the imaginary, the outside and the inside; between the self and the Other.[2] Since the Western Tradition was perpetuated through the passing on of stories, I conclude by proposing that Kiefer's (ethical) creations demonstrate an affinity with the symbolic traditions of architecture; providing frameworks that allow us to see more of ourselves through the creation in front of us.

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[1] Gadamer, Hans-Georg, *The Relevance of the Beautiful and Other Essays*, edited by Robert Bernasconi (United Kingdom: Cambridge University Press, 1986), p. 9.

[2] Merleau-Ponty, Maurice, Eye and Mind in The Primacy of Perception (Evanston: Northwestern University Press, 1964). p. 180.

Nan-Wei Wu
Post-Doctoral Fellow, National Cheng Kung University, Taiwan
Chao-Ching Fu
Distinguished Professor, National Cheng Kung University, Taiwan

Material that Talks: Material Use of Architectural Surface in Semiotic Implications

According to the language of post-modern architecture which Charles Jencks proposed, the form has been very crucial for this language expression. However, many suggestions also imply that the material which is deployed for building is also significant in the linguistic expression of architecture. Based on this consideration, the material use of architecture shall also contain semiotic implication, no matter of architects or of social consensus. What does the material talk? How does the material talk?

To answer these two questions, some empirical works in architecture will be examined to reveal the message which could be delivered in architectural materials. Before this, semiotic debates in architecture will be reviewed. Then, some empirical works in the West (VSBA's Lewis Thomas Laboratory, 1986) and in the East (Moriyama's Taipei Public Hall built, 1936) will be considered particularly for their material deployments on the surface (façade). Since the architectural surface is the most tangible part in terms of material use of architecture, the surface of both projects will be detailed with their implication and the atmospheres which the materials formulated and created. This paper will conclude the possible implications from architectural projects and also the different expressions of material use, which will help us to rethink of the expression of material use of architectural surface.

Jing Xie
Assistant Professor, University of Nottingham, Ningbo, China

Instrumental Forms: An Historical Inquiry of the Architecture in 19th Century England

The architecture of nineteenth-century England offers us immense excitement and inspiration. This development also nourished a scientific belief that architecture could be utilitarian like a mechanical contrivance for instructing human behaviour, thereby resolving social problems. This habitual reasoning and solution, along with progress in science and technology, seems to have cultivated the tenuous thinking among many modern planners and designers that behaviour is observable and analyzable, and form embodies meaning hence it can codify behaviour patterns, so that physical configuration can lead to a desired outcome in shaping people's perception and behaviour.

Through a detailed examination of architectural styles and forms, and their social impact of 19th century England, this paper attempts to underline the disconnection between physical form and social behaviour. The process of form becoming instrumental is fundamentally a social process of assimilating values and behaviour patterns.

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Discussions on the Writings of Architectural History under Cultural Essentialism

The paper aims to explore the limits of the writings of architectural history under the concept of cultural essentialism. The ideal cultural essentialism emerges from the moment of the European encountering with and writing her non-western other. In the discipline of architectural history in the nineteenth century western architectural historians, such as James Fergusson and Sir Banister Fletcher, conceptualized and essentialized non-western architectural in their framework of architectural history of the world. Their works further influenced oriental architectural historians, such as Chyuta Ito, and their self-formulations of own architectural history. All their works present an ideal concept of architecture as materialized cultural representation, in other word, cultural essentialism.

However, if we take Homi Bhabha's postcolonial critique into account, the idea of architecture as materialized cultural representation become problematic. Bhabha's key ideas, such as hybridity and cultural difference, reject the precise and reduced categorization and discrimination created by western epistemology where cultural essentialism operates. Furthermore, under the categorization, the West remains its dominant power. Therefore he emphasizes 'the process of the enunciation of culture'. Bhabha's postcolonial insights have pointed out the unbalanced relationships within cultural essentialism, and I believed that it also exists in the writings of architectural history under cultural essentialism.

This paper will examine both western writings of the other's architectural history, such as Fergusson's and Fletcher's formulations of oriental architectural history, and the other's self-formations of own architectural histories, Ito's self-announcement of own architectural history. Putting them together here is able to show how the idea of cultural essentialism operates in the discipline. Through Bhabha's postcolonial insight, and by exploring the limits of the idea of architecture as materialized cultural representation in architectural historiography, we may reconsider how we formulate and conceptualize architectural history in the dynamic era of transculturation.

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The Analysis of Cave Houses as Archetypes of Shelter Formation in Cappadocia Region, Turkey

Cave houses are the privileged archetypes of the concept residence being preserved from ancient periods until today. The spatial formation of these structures, livable paradigms in the near surrounding, their aesthetical value as a whole, the environmental approaches as a whole, sustainability ability of these houses, interior space etc. are being identified multidisciplinary in this paper.

The aim of this paper is to mention the historical background, formation and developments of the spatial necessities of human from the ancient times that have been surviving from millions of years and are still being used today. The functions of the caves are being identified according to current necessities.

The cave houses are social and cultural reflections of many cultures being sustained around this area until thousands of years. The ability of carrying multifunctional properties are the flexible character of stone based natural space formations. The multicultural aspect of space usage and interior abilities are to be concerned in a wider aspect.

The methodology of the study is first evaluating the general approaches to be concerned. Then the spatial paradigms are being identified depending on current usage. The next step is a comparison of the spatial usage of space form the ancient times until today's conditions and making proposals.

After the functions of these cave houses in current conditions being evaluated the proposals are going to widen the sustainable space usage depending on today's conditions with a critical perspective. In the results and conclusions the sustainable features of these cave formations are analyzed systematically.

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Towards an Experimental Approach in Design Research: Urban Archi-Scapes Studio

Emerging as a recognizable field of study in the second half of the twentieth century, Design Research handles the entire design process. It shapes up in the framework of research-based design practice. The studies carried out in this field, bases on the understanding and improvement of design processes. In the context of design research, a design process carried out by a experimental approach, intrinsic to experimentality, promotes a critical look upon the entire process and constitutes an effective inquiry. By means of experimentality, it is possible to deal with many constituents of the process from design methods to design results and modes of presentation of this results via unusual ways. Through this consideration, taking an experimental design studio as a case study, this paper shares alternative designerly ways of thinking and communicating upon the processes of shaping and making of places that is produced in the Urban Archi-Scapes Studio.

Urban Archi-Scapes Studio, represents one of the WS-RADS 2012 (*Winter School-Roving Architectural Design Studios*) intensive program studios of Gazi University Architecture Faculty. Under the theme "Urban Housing: Visions of the Future", the studio introduces a process of shaping and making of an alternative urban housing area through experimental approach in two weeks workshop time. Accordingly within the context of this paper, design methods, design results and presentation modes of design results that are developed through the design process of the Urban Archi-Scapes Studio are illustrated. Additionally, how a process of shaping and making of places can be transformed into a design research is represented. How the process of a design studio constructed through an experimental approach becomes design research and how each of the design results constitute a distinct inquiry is discussed from a pedagogical perspective.

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Quantitative Analyses of Street Network Density in Diverse Urban Contexts

Streets unite the function of circulation route and public space in urban system, and they play an important role in defining the urban landscape and characterizing the local identity of cities. Although the researches of street system as a spatial entity started in the 1950s, it is still difficult to define the morphological features of street networks specifically and precisely, especially those irregular ones. It leaves a gap between research and design.

This paper proposes a methodology to examine street network features and develop a new quantitative device based on network density analysis (Meta Berghauser Pont & Per Haupt 2009) to describe and visualize the geometrical characteristics of network layouts. A set of variables of network density – network area per area unit and network length per area unit – is introduced to construct a density diagram. By plotting the density data of the street networks, the diagram can help to recognize different types of networks according to their density properties.

This analysis method is applied in Tianjin, a Chinese city which had 9 historical European and Japanese concessions established successively in the early 20th century. The concession territories, which were constructed under distinctive foreign background, provide extremely diverse urban texture samples that coexist with each other. By using GIS techniques, the density features of the concession street networks are extracted and described in a quantitative way. Based on the data, a guideline for conservational urban design in Tianjin historical concessions is suggested. The research results finally lead to a deeper insight into the spatial interaction between social/cultural elements and physical built environment in urban area.

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Eindhoven as an Example of Pragmatic Sustainable Design: Preparing the Period of the Post Carbon City

The contribution focuses on the city of Eindhoven, The Netherlands, especially the preparation of this city for the post carbon period. Eindhoven is the example of an industrial city, which emerged in 20th Century because Philips established its business in this city on the so called Strijp area. However, by the end of 20th century the "de-Philipsing" effect occurred: a post-industrial development phenomenon highlighting the importance of the creative and knowledge economy. Morphologically the city can be typified as a growing together of several villages. Striking is the enormous post war enlargement according to the principles of modern urbanism in the north of the city, the Woensel area.

In preparing Eindhoven for the post carbon period, a sustainable strategy is necessary. Next to the usual policies of energy neutrality and carbon emissions, it is indispensable to intervene in the morphology of the city. Form and structure should be adapted to meet the goals of sustainability. The current debate in general has a tendency to focus on models of the city and values of sustainability. However, the challenge is the adaptation of existing forms and structures as for a large extent they already represent the future sustainable city.

The contribution takes the transition of Eindhoven from an industrial towards a post industrial city as point of departure, focusing on the urban redesign of the post war district of Woensel. This performed is based on the vision of the city as a modular construct, proposed by Hildebrand Frey, as notion of a pragmatic design strategy to adjust form and rescaling an existing area, a method to implement new directions to work through challenges of sustainability.

In the presentation the assumptions of pragmatic sustainable urban design related with the method will be discussed, as also the concrete morphological analysis and redesign of Woensel as an example. The result shows the utility of the method in a new urban context, concluding that sustainability is a concept to transform the city, in which morphology is very important for the transition.