

2016

Architecture Abstracts

Sixth Annual International
Conference on Architecture,
4-7 July 2016, Athens, Greece

Edited by Gregory T. Papanikos

THE ATHENS INSTITUTE FOR EDUCATION AND RESEARCH



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Preface

This abstract book includes all the abstracts of the papers presented at the 6th Annual International Conference on Architecture, 4–7 July 2016, Athens, Greece, organized by the Athens Institute for Education and Research. In total, there were 50 papers and 57 presenters, coming from 21 different countries (Australia, Brazil, Canada, China, Denmark, Egypt, Finland, Iran, Italy, Kazakhstan, Lebanon, New Zealand, Portugal, Saudi Arabia, Serbia, South Africa, South Korea, Spain, Sweden, Switzerland, Taiwan, Thailand, Turkey, USA). The conference was organized into twelve sessions that included areas such as Pedagogy, Approach to Architecture, Technology, Urbanism & Other Issues 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 six research divisions and twenty-seven 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
6th Annual International Conference on Architecture
4–7 July 2016, Athens, Greece

Conference Venue: [Titania Hotel](#), 52 Panepistimiou Street, 10678 Athens, Greece

Monday 4 July 2016

(all sessions include 10 minutes break)

08:00-08:30 Registration and Refreshments

08:30-09:00 Welcome & Opening Address (ROOM B--Mezzanine Floor)

- Gregory T. Papanikos, President, ATINER.
- George Poulos, Vice-President of Research, ATINER & Emeritus Professor, University of South Africa, South Africa.

09:00-10:30 Session I (ROOM D- 10TH Floor): Pedagogy

Chair: Olga Gounta, Researcher, ATINER.

1. Ervin Garip, Associate Professor, Istanbul Kultur University, Turkey. The Role of Experiential Learning Strategies in Interior Design Education: Environmental Design Course and Case Studies in Yenikapi Coast Landfill Area, Istanbul.
2. S. Banu Garip, Associate Professor, Istanbul Technical University, Turkey. Experiential Learning in Interior Architectural Education: Experiences and Case Studies in Environmental Psychology Course.
3. *Christo Vosloo, Associate Professor, University of Johannesburg, South Africa. Participatory Entrepreneurial Learning for Architects.
4. *Sawsan Saridar Masri, Assistant Professor, Beirut Arab University, Lebanon. Improving Architectural Pedagogy toward Better Architectural Design Values.

10:30-12:00 Session II (ROOM D- 10TH Floor): Approach to Architecture I

Chair: *Christo Vosloo, Associate Professor, University of Johannesburg, South Africa.

1. Vimolsiddhi Horayangkura, Chair, Ph.D. Program in Integrated Science of Built Environment, Professor, Thammasat University, Thailand. In Search of Fundamentals of Thai Architectural Identity: A Reflection of Contemporary Transformation.
2. Nezihat Koskluk Kaya, Associate Professor, Dokuz Eylul University, Turkey. The Interrelations of Tangible and Intangible Cultural Properties in Buldan.
3. *Isa Pasqualini, Lecturer, Federal Institute of Technology of Lausanne EPFL, Switzerland. Visual Touches and Touching Views.
4. Riitta Niskanen, Researcher, Lahti City Museum, Finland. Time of Great Changes in the 1980's Lahti as an Example.
5. *Yonggao Shi, Associate Professor, Southeast University, China. The Evolving Vernacular: What Position and Situation Mean to the Life of Vernacular Architecture.

10:30-12:00 Session III (ROOM E- 10TH Floor): Technology

Chair: *Sawsan Saridar Masri, Assistant Professor, Beirut Arab University, Lebanon.

1. Leif Hogfeldt Hansen, Associate Professor, Architect, Aarhus School of Architecture, Denmark & Sara Kim, Architect, Visiting Lecturer, Aarhus School of Architecture, Denmark. Towards a New Tectonics in Bamboo – A Comparative Cross-Cultural Case Study in Development and Construction of Different Split Bamboo Constructions with Arbitrary Double Curved Forms.
2. Merve Ascioğlu, Research Assistant, Istanbul Kemerburgaz University, Turkey & Alpin Koknel Yener, Professor, Istanbul Technical University, Turkey. Light as an Intangible Layer of Architectural Environment.
3. Monica Saeter, Researcher, Interactive Institute Eskilstuna, Sweden. Design Principles for a Sustainable Lighting.

12:00-13:30 Session IV (ROOM D-10 TH Floor): Architectural Design & Building Type I	12:00-13:30 Session V (ROOM E-10 TH Floor): Methodology
Chair: *Isa Pasqualini, Lecturer, Federal Institute of Technology of Lausanne EPFL, Switzerland.	Chair: Leif Hogfeldt Hansen, Associate Professor, Architect, Aarhus School of Architecture, Denmark.
<ol style="list-style-type: none"> 1. Ferhat Hacialibeyoglu, Assistant Professor, Dokuz Eylul University, Turkey. "İzmir Centre of Architecture Building" in the Context of Re-functioning and Re-identification. 2. Srisak Phattanasasin, Assistant Professor, Thammasat University, Thailand. Courtyard Compact House: An Alternative Solution for Self-sufficient Architecture in Bangkok Urban Area. 3. Lucia Frescaroli, Ph.D. Student, Politecnico di Milano, Italy. Ordinary Domestic Interiors. An Original Observation Inside Italian Homes. 4. <u>Sindy Melissa Godinez de Leon</u>, Ph.D. Student, Università degli Studi di Ferrara, Italy, Luca Venturi, Professor, University of Bologna, Italy & Maurizio Biolcati Rinaldi, Professor, Università degli Studi di Ferrara, Italy. First Aid Center in Fotomena - Cameroon. 	<ol style="list-style-type: none"> 1. *Henry Tsang, Assistant Professor, Keimyung University, South Korea. Study of Green Building Certification Programs in South Korea. 2. Eldin Shahira Sharaf, Associate Professor, Delta University, Egypt. "Reflection on Practical Implementation of Virtual Reality in Interior Design Teaching Studio".

13:30-14:30 Lunch

14:30-16:30 Session VI (ROOM D-10 TH Floor): Architects & Theory
Chair: *Henry Tsang, Assistant Professor, Keimyung University, South Korea.
<ol style="list-style-type: none"> 1. Daniel Davila Romano, President, Temenos: Spanish National Association for Architectural Theory, Spain. Concepts of Space in the Spanish Translations of Vitruvius (1564, 1582, 1761 and 1787). Their Differences from Gottfried Semper's Idea of Space as Developed in <i>Der Stil</i> (1861, 1863). 2. Raffaella Maddaluno, Assistant Professor, University of Lisbon – CIAUD, Portugal. Fernando Távora: The Journey as an Instrument of Experience and Transmission of the Architectural Discipline. 3. <u>Maria Joao Soares</u>, Research Fellow, CITAD / Associate Professor, Lusiada University, Lisbon, Portugal & Clara Germana Goncalves, Research Fellow, CITAD, Lusiada University, Lisbon / Associate Professor, ISMAT, Portimao / Invited Assistant Professor, University of Lisbon, Portugal. At and with the Sea: Le Corbusier's Path towards a "Desiring-Machine". 4. Ingrid Quintana Guerrero, Researcher, Universidade de São Paulo, Brazil. Latin American Collaborators at Le Corbusier's Studio: The Case of Rogelio Salmona [History of Architecture and the Built Environment]. 5. Rossella Putzolu, Ph.D. Student, University of Cagliari, Italy. The <i>Joseph Lemaire</i> Sanatorium in Belgium: A Forgotten Modern Masterpiece. 6. Maria Paola Sabella, PhD student, Università degli Studi di Cagliari, Italia. The project of 'Palais de la Société des Nations de Geneve' by Le Corbusier in <i>Cahiers d'art</i>.

16:30-18:30 Session VII (ROOM D-10TH Floor): Urbanism & Other Issues

Chair: *Yonggao Shi, Associate Professor, Southeast University, China.

1. Nico Kotze, Professor, University of Johannesburg, South Africa. The Built Environment and Politics in Bo-Kaap, Cape Town: The Conservation of a Neighbourhood.
2. Vladimir Mako, Professor, University of Belgrade, Serbia. The Aesthetics of Transformation. (Monday, afternoon)
3. Chia-Hui Wang, Associate Professor, University of Taipei, Taiwan, Nai-Wen Kuo, Professor, Taipei Medical University, Taiwan & Kathryn Anthony, Professor, University of Illinois at Urbana-Champaign, USA. Impact of Urban Landscape on Patient Recovery - An Example of Post-Cesarean Section Women.
4. Meng Chen, Ph.D. Candidate, Southeast University, China. Nanyang Industrial Exposition and the Modernization of Nanjing City in Late Qing Dynasty.
5. Ruiqi Dou, Ph.D. Student, Southeast University, China. Conversion, Simplification and Differentiation: Three Rural Housing Strategies in China Based on Self-built Residence and Construction Solidarity.
6. Zhuo Chen, MSc Student, Chongqing University, China, Bo Yan, Professor, Chongqing University, China & Wenyong Tan, Associate Professor, Chongqing University, China. A Research on Preservation and Renovation Strategies of Spatial Pattern in China's Urban Historical Blocks against the Background of "the Belt and Road": A Case Study of Ayidun Historic Block in Yining City, Xinjiang Uyghur Autonomous Region.

21:00-23:00 Greek Night and Dinner (Details during registration)

Tuesday 5 July 2016

08:00-11:00 Educational and Cultural Urban Walk Around Modern and Ancient Athens (Details during registration)

11:00-12:30 Session VIII (ROOM D-10TH Floor): Urban Architecture

Chair: Nico Kotze, Professor, University of Johannesburg, South Africa.

1. *Fatih A. Rifki, Professor, Montana State University, USA & Reese Christensen, Graduate Student, Pratt Institute, USA. Testing the Pattern Language Theory in Five Italian Piazzas to Derive Lessons for American Public Urban Open Space Design.
2. Azhang Baghaei, Professor, Islamic Azad University, Kerman Branch, Iran. Inside Outside Architecture: Character and Concept of Open Spaces in Persian Traditional House in Hot, Arid Climate.
3. *Eirini Kasioumi, Research Assistant, Lecturer and Ph.D. Candidate, ETH Zurich, Switzerland. Emerging Urban Forms and Functions around Hub Airports.
4. Zhanfang Hu, Ph.D. Candidate, Southeast University, China. Thoughts of Modern Architectural Heritage Protection upon Current Cities - Taking Nanjing as an Example.

12:30-14:00 Session IX (ROOM D-10TH Floor): Approach to Architecture II

Chair: *Fatih A. Rifki, Professor, Montana State University, USA.

1. T. Elvan Altan, Professor and Chair, Department of Architecture, Middle East Technical University, Turkey. The Works of the Bediz-Kamcil Partnership: Rebuilding Modern Ankara in Mid-Twentieth Century.
2. *Fiorella Vanini, Assistant Professor, Prince Sultan University, Saudi Arabia. Controspazio and the Autonomy of Architecture (1969-1973).
3. *Clara Germana Goncalves, Research Fellow, CITAD, Lusiada University, Lisbon / Associate Professor, ISMAT, Portimao / Invited Assistant Professor, University of Lisbon, Portugal & Maria Joao Soares, Research Fellow, CITAD / Associate Professor, Lusiada University, Lisbon, Portugal. A Transdisciplinary Dictionary of Architecture: A First Approach.
4. William Albert Duncan, Postgraduate Student, Victoria University of Wellington, New Zealand & Daniel K. Brown, Associate Dean, Victoria University of Wellington, New Zealand. Heterotopia: After the Fall.
5. Shannon Aya McGrath, Postgraduate – MSc Student, University of Canberra, Australia. Recontextualizing the Architectural Manifesto.

14:00-15:00 Lunch

15:00-17:00 Session X (ROOM D-10TH Floor): Architectural Design & Building Type II

Chair: *Fiorella Vanini, Assistant Professor, Prince Sultan University, Saudi Arabia.

1. Gul Deniz Dokgoz, Associate Professor, Dokuz Eylul University, Turkey. Critical Approach of Cubic House as an Image of Modernism in Turkish Cartoon.
2. Idil Karababa, Assistant Professor, İstanbul Bilgi University, Turkey. Layers and Frames - Spatial Organization of the Sanctuary of Apollo at Delphi.
7. Ursa Komac, Assistant Professor, University of Canberra, Australia. Public Space as a Public Good.
3. Umit Ceren Bayazitoglu, Research Assistant, Ozyegin University, Turkey & Seda Cengiz, Architect / Ph.D. Candidate, Izmir Institute of Technology, Turkey. A Case Study on Identification of Traditional Timber Framed House: Konuralp.
4. Seda Cengiz, Architect / Ph.D. Candidate, Izmir Institute of Technology, Turkey. Traditional Rural Architecture in Eastern Black Sea Region: Case Study on Rize-Fındıklı-Hara Village.

17:00-18:30 Session XI (ROOM D-10TH Floor): Special Topics I

Chair: Xin Zheng, Professor, Southeast University, China.

1. Altyn Aikeyeva, Professor, The Karaganda State University, Kazakhstan, Bakhyt Zhautikov, Professor, The Atyrau State University, Kazakhstan, Xenia Rogovaya, Graduate Student, The Karaganda State University, Kazakhstan, Farkhat Zhautikov, Graduate Student, The Karaganda State Industrial University, Kazakhstan, Perizat Mukhtarova, Student, The Asian Pacific University of Innovations and Technologies, Malaysia, Aigerim Tanskozhanova, Graduate Student, The Karaganda State University, Kazakhstan, Arailym Ayubekova, Student, The Karaganda State University, Kazakhstan, Saken Izimov, Student, The Karaganda State University, Kazakhstan, Saduakas Kappar, Student, The Karaganda State University, Kazakhstan & Aiadil' Ospanov, Student, The Karaganda State Technical University, Kazakhstan. The Dynamic Analysis of the Main Characteristics of Electromagnetic Lifting Installation Elements.
2. Hans-Peter (Hepi) Wachter, Associate Professor, University of Oklahoma, USA. Making Places: Environmental Gerontology.
3. Chenwei Zheng, Ph.D. Candidate, Southeast University, China. Exploring the Traditional Form of Stockade Village Architecture in Pingyao County under the Background of Historical Regional Commerce Development.

18:30-20:00 Session XII (ROOM D-10TH Floor): Special Topics II

Chair: Nicholas N. Patricios, Director, Engineering & Architecture Research Division, ATINER, Professor & Dean Emeritus, School of Architecture, University of Miami, USA.

1. Xin Zheng, Professor, Southeast University, China. The Design Strategy and Methods of Rehabilitation of Historical City Blocks in China. A Case Study of Qingguo Lane Block in Changzhou.
2. *Macarena de la Vega de Leon, Ph.D. Candidate, University of Canberra, Australia. Towards Authenticity: Greece in *Modern Architecture since 1900*.
3. Nihal Coskun, Research Assistant, Mimar Sinan Fine Arts University, Turkey. Some Remarks Regarding the Evaluation of the Traditional "Turkish House".

21:00-22:30 Dinner (Details during registration)

Wednesday 6 July 2016

Cruise: (Details during registration)

Thursday 7 July 2016

Delphi Visit: (Details during registration)

Altyn Aikeyeva

Professor, The Karaganda State University, Kazakhstan

Bakhyt Zhautikov

Professor, The Atyrau State University, Kazakhstan

Xenia Rogovaya

Graduate Student, The Karaganda State University, Kazakhstan

Farkhat Zhautikov

Graduate Student, The Karaganda State Industrial University,
Kazakhstan

Perizat Mukhtarova

Student, The Asian Pacific University of Innovations and Technologies,
Malaysia

Aigerim Tanskozhanova

Graduate Student, The Karaganda State University, Kazakhstan

Arailym Ayubekova

Student, The Karaganda State University, Kazakhstan

Saken Izimov

Student, The Karaganda State University, Kazakhstan

Saduakas Kappar

Student, The Karaganda State University, Kazakhstan

&

Aiadil' Ospanov

Student, The Karaganda State Technical University, Kazakhstan

The Dynamic Analysis of the Main Characteristics of Electromagnetic Lifting Installation Elements

This work concerns creation of imitating model of elements of the system "skip- constant magnet-coil" of electromagnetic lifting installation. In the work the principle of work of electromagnetic lifting installation elements is presented and described. For model operation the ANSYS Maxwell program was used. The problem of model operation is definition of the main magnetic characteristics of installation elements (Lorentz force, magnetic intensity and magnetic induction). The work describes five experiments which calculated parameters are used for construction the common graphic charts. By results of experiments engineering equations with one variable are worked-out. The received equations allow to define the characteristics of magnetic field counted in the work.

T. Elvan Altan

Professor and Chair, Department of Architecture, Middle East
Technical University, Turkey

The Works of the Bediz-Kamcil Partnership: Rebuilding Modern Ankara in Mid-Twentieth Century

The Turkish Republic, founded in 1923 as a modern state, witnessed important changes following the Second World War in socio-political and economic terms with its fuller integration into the international capitalist system and adoption of the modernization paradigm. The focus of this paper is the transformation of modern Ankara, capital city of Turkey, in the mid-twentieth century, which exemplifies the contemporary built environment in the country. The post-war built environment in Turkey is characterized by urbanization as a result of rapid migration to cities, whereby the increasing number of houses began to transform the urban scene. The construction of newly emerging public building types such as industrial, commercial and office buildings, also increased in this context with the demand of the developing private sector as well as with the continuing modernizing efforts of the state as a result of its current developmentalist aims.

The use of the contemporary modernist style as well as the new materials and construction techniques, defined the architectural production in this context. This paper analyzes the built environment during the post-war decades in Ankara by examining the works of the Demirtaş-Kamçıl partnership that played a defining role in the post-war construction of the city. The Demirtaş-Kamçıl partnership designed many houses as well as public buildings both for the state and the private sector from 1952 to 1980 with a modernist approach. The analysis of their role as one of the earliest and long-enduring private architectural offices in the country, will help evaluate the rebuilding of the modern city of Ankara through the transformation of its urban context in the mid-twentieth century.

Merve Ascioğlu

Research Assistant, Istanbul Kemerburgaz University, Turkey

&

Alpin Koknel Yener

Professor, Istanbul Technical University, Turkey

Light as an Intangible Layer of Architectural Environment

People get in contact with the environment they have been in by their sensation competence. These competences provide them to decode their environment or the space they have been in. Perception, which is created by the environment or space, defines the relation between people and the surrounding space. Supporting this, Schulz indicates that perception creates the awareness of environment and vision is used not only for direction of people but also to understand the environment and convert it to a useful space [1].

Besides vision is one of the most important components of perception, light is also the most significant component of vision. Lighting provides visibility of the surrounding objects, tissues and textures; people are not able to see without light. Moreover, lighting can extremely change the perception of space. Barr and Broudy state that light is the catalyst that can convert a texture to a finished architectural surface. With the effect of light, atmosphere in the place can change, the desired effects can be enhanced, motion and viability can be created in the space [2]. Lighting impacts the way we perceive the environment in harmony with the architectural geometry, the way we evaluate and determine our responses to the environment.

It is not possible to create a visual perception without light, thus it has the majority of the perception of space. It could be said that light makes a space alive by rendering objects/surfaces and creating shadows, re-shape the forms by creating visual illusions, can define a movement in an environment, can affect and direct human psychology and wellness. Light defines the environment that we have been in by creating visual and psychological perception.

In this context lighting and its power on the perception of space and environment will be analyzed on the basis of the architectural spaces. Light can transform to a texture, material or a form, it can define the movement and the boundaries, or be a divider for a space, it can guide people and change their emotions. These behaviors of light will be analyzed on existing buildings. With these analysis effects of light (or its' behaviors) on human sensations and the perception of space and environment will be tried to examine. Also by these analyses that is aimed to indicate that light is not just a source that provide us a vision, but also it is an intangible layer that can be transformed to a component

of the architectural environment like materials, textures or form but a more stronger and flexible component than these.

Azhang Baghaei

Professor, Islamic Azad University, Kerman Branch, Iran

Inside outside Architecture: Character and Concept of Open Spaces in Persian Traditional House in Hot, Arid Climate

The whole subject of architecture is acquiring a thorough overhaul as a result of concerns for today and the future. Traditional houses represent the depth of awareness and capacities of Persian architect to deal with harsh natural conditions. Its content and the relevant approaches are becoming wider, as we explore in traditional sustainable and adaptable conventions and procedures of Persian architecture in central hot desert climate. There exist numerous stylistic analyses, among them the role of open space, its character and concepts hold the main position. These analyses had used various types of open spaces with different types of shape, size, depth and height and had organized them in a unique three-dimensional, spatial positioning system. The vital role of open spaces and their diversity in different level of height and positioning of them is the key. Design guidelines and preferences which regulate various interface spaces organize indoor outdoor compilations that made the homes suitable places to live in. Traditional definition of these open spaces and their role are one of the most important characters in Persian desert architecture.

Central courtyard is the heart of Iranian traditional home in desert climate. But there are different kinds of open spaces. The concepts are important from two points of view: functional and physical. 1) Increased sense of security and development of privacy are functional characters of these open spaces. For example central open courtyard is the first and the closest open space to achieve the nature in desert. Direct contact with water and green plants for all people in home and receiving appropriate sun light in all seasons and some other functional reason depend on central open space. The function and name of each open space is different. Their orientation and position defines the other part of home. 2) Organizing all the rooms and spaces depends on open space and central courtyard. Designing a home starts from central open space and assorted indoor and outdoor spaces then arrange around it, based on various reasons. So relationship between outside and inside spaces will develop when it is needed. The main façades are inside the house and a brief sense of nature comes inside from outside the house. So everything a family needs from outside comes inside that the author named it Inside-Outside architecture. In this way there are several principles, priorities and technics that will be discussed in this paper.

Umit Ceren Bayazitoglu

Research Assistant, Ozyegin University, Turkey

&

Seda Cengiz

Architect / Ph.D. Candidate, Izmir Institute of Technology, Turkey

A Case Study on Identification of Traditional Timber Framed House: Konuralp

In Anatolian rural settlements, it can be observed that, local architectural components form the urban and the architectural identity of the district. One of these factors is the construction style of the buildings. In the paper, the structural systems of registered and non-registered timber civil architecture examples, basically from the first half of the 20th century, that constructed in an area having potential in different perspectives will be analyzed. The field of study is Konuralp; a town of the city of Düzce, located in the northwest part of Turkey, in West Black Sea Region.

Konuralp; is rich in the way of the archeological and historical values, open to improvement and transformation due to Düzce University that located within the borders of the town, is advantageous in terms of agriculture and animal breeding; and also is close to city center of Düzce. Consequently, it can be seen that the area has various meanings, opportunities and strengths throughout history.

In academic years of 2012-2013 and 2013-2014; the survey, restitution and restoration project of traditional timber civil architecture examples located in Konuralp has been studied with the senior architecture students of Gebze Technical University. That practice gave chance to recognize the historical tissue, to experience the daily life in the town and also to analyze the traditional construction details for both the students and the instructors. In the paper, both surveyed and unstudied timber houses will be identified, analyzed and classified.

The development of Konuralp today can be an opportunity; on the other hand the continuing urban conversion could be seen as a treat, causing deterioration of uniqueness of the historical urban tissue. Therefore, the studies focusing on the documentation of local architectural identity, vernacular materials and urban tissue can be important for urban sustainability. Finally, the aim of the study is to create an inventory by analyzing the indigenous materials, structural systems, details; observing the various packing materials used in the timber construction system; studying on planning typologies and functional diagrams; making a map to display the locations of the traditional timber houses.

Seda Cengiz

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Traditional Rural Architecture in Eastern Black Sea Region: Case Study on Rize-Fındıklı-Hara Village

The Black Sea region is kind of a mountainside on the North part of Turkey. The settlements of the region were found on the mountains and plateaus. In the region, annual precipitation rate is higher than the country average. It provides to have the widest forest land of the country. Without any dispute this climatic and geographic conditions has also shaped the living habits of local people and built environment. Fındıklı located on the sea side of Black Sea, is a small county of Rize, Turkey. However the nearby settlements of county provide spectacular examples of traditional housing; the central Fındıklı does not present any traditional housing or district. The nearby inhabiting consists of villages and districts are settled through the rivers. Due to the geographical condition of the land, the districts are located separately from each other. Sometimes even single buildings had to be isolated from the others.

In the scope of this research Hara Village of Fındıklı is studied. The rural architectural examples can be classified according to their utilizations as temporary and/or permanent occupation. This study comprises of typological analysis of permanent occupation of rural houses in Hara Village. Those rural houses were constructed and used by the *Laz* population who are an ethnic group in the region. Houses are constructed as timber frame system with “*gözdolgu*”-cell filled-which is a kind of construction technique special to the region. By constructing *gözdolgu*, approximately 20x20 cm. grid system is generated into the timber frame by thin timber laths. The monolithic river stones are located into the grid gaps and fasten up with lime mortar. The inner faces of the wall are covered with timber boards while the outer faces are left as uncovered. Therefore, the construction system can be seen on these outer faces of the wall. The inner separation walls are built by again timber boards located in between the timber posts. Timber frame and *gözdolgu* construction system has provided a unique housing architecture in Eastern Black Sea Region of Turkey. In this paper, it is aimed to define architectural characteristic of the rural houses in Eastern Black Sea Region by emphasizing construction system and focusing on Hara Village.

Meng Chen

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Nanyang Industrial Exposition and the Modernization of Nanjing City in Late Qing Dynasty

Nanyang Industrial Exposition (*Nan Yang Quan Ye Hui*, 南洋劝业会) is a national exposition which is held corporately by officers and merchants in Nanjing, China. It opens on June 5th, 1910, and closes on November 29th, 1910. There are 4 to 5 hundred visitors every day, totally 200 thousand during the 6 months. Nanyang Industrial Exposition is officially called "Nanyang 1st Industrial Exposition". "Nanyang" (南洋) includes Jiangsu province, Zhejiang province, Guangdong province and other treaty ports. Also, the sponsors want to encourage overseas Chinese merchants in southeast Asia to develop industry and commerce in China. "Quanye" originates from "Records of the Grand Historian: Biographies of Merchants" (*Shiji: Huo zhi lie zhuan*, 《史记·货殖列传》). "Quan" (劝) means encouraging to do something and "Ye" (业) means industry and commerce, so "Quanye" (劝业) means to encourage to develop industry and commerce. Except for the display of industrial and commercial products, Nanyang Industrial Exposition shows the modern infrastructure, diverse architectural types and new exhibition space, which express the hosts' modern dream and the support by the local reformers. In a word, the establishment of Nanyang Industrial Exposition is not only to educate people as a modern civilized place, but also to show the modern city and architecture to the late Qing society which is in the process of new politics.

This passage introduces the social background of Nanyang Industrial Exposition in the late Qing Dynasty in the first. Then, based on the origin and preparation of the exposition, it discusses the relationship between the main Sponsor, the Liang Jiang Governor, Duan Fang's modern ideal and the layout of the exposition. He proposes "three rules to guide people" (*dao min shan fa san ze*, 导民善法三则), which directly influence the planning of the expo, such as the public garden, museum and zoo. At last, the passage studies the influence of the expo on the modernization of Nanjing city, including the modernization of infrastructure, the modernization of spatial experience, the promotion of urban regeneration and so on.

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&

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A Research on Preservation and Renovation Strategies of Spatial Pattern in China's Urban Historical Blocks against the Background of "the Belt and Road": A Case Study of Ayidun Historic Block in Yining City, Xinjiang Uyghur Autonomous Region

Against the strategic background of "the Belt and Road", the urbanization steps onto an increasingly fast pace in China's northwestern region of ethnic minority. However, the preservation and development of the historical blocks there comes into a dilemma, especially the spatial pattern. As an essential element of the structure of the urban historical blocks, its preservation and renovation becomes an important research project upon the shock of rapid urbanization. With a case study of Ayidun historic block in Yining city of Xinjiang, the article delves into the preservation and renovation strategies by analyzing its land use, block texture, street pattern, spatial scales, block skyline, spatial pattern of yard and architecture on the premise of respecting its regional characteristics, historical context and place spirit and considering the change of urban economic structure. To be specific, the strategies can be summarized as: core preservation area should be allocated and the land function and ratio should be integrated in the Ayidun historic block; on the basis of high building density but low plot ratio, the traditional block texture with the uniform distribution of buildings and exterior space should be maintained; the smooth fish-bone-shape street pattern should be spread to improve streets and alleys at safety risk; the components and scales of the street space should be optimized; the height of buildings should be correspondingly controlled; the priority of mosques should be given in the skylines; the historical yards and its conventional spatial pattern should be respected; last but not least, historical buildings should be preserved and meanwhile, better the geographical features and spatial pattern of non-historical regions. It is hoped that the above mentioned strategies can be enlightening about the preservation and renovation of historical blocks in China's northwestern regions of ethnic minority.

Nihal Coskun

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Some Remarks Regarding the Evaluation of the Traditional “Turkish House”

“No, undoubtedly we like these old ones not only for themselves. The thing that attracts us to them is the emptiness they left. There exists a trace or not, we are searching in them a side of ours which we supposed it was loss at our inner fight.” Ahmet Hamdi Tanpınar [1]

This paper is an attempt to make clear what is blurry. An effort to understand. A need to remember and remind before tabula rasa is completed. Not only with a feeling nostalgia, but also with the understanding that for a designer to be able to produce, there needs to be more than one live alternative in conceptual horizon. Through a traditional life unit: “Turkish House”.

Ottoman settlement geography is also not homogeneous as it is all around the world. The vast territorial expanse of the empire included many house types within it. The typical “Turkish House” is common at a limited core area of the empire and it has the specific characteristics which provide a peculiar place in the universal history of house types. As well as being functional and esthetical, it is also exciting because of the affairs with the social, geographical and cultural facts. Both in the past and at the present.

And today more than ever, since our failure as modern individuals to experience tradition is evident, it is time to look once again at the traditional “Turkish House”, paying particular attention to its physical value.

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Concepts of Space in the Spanish Translations of Vitruvius (1564, 1582, 1761 and 1787). Their Differences from Gottfried Semper's Idea of Space as Developed in *Der Stil* (1861, 1863)

Historians of Architectural Theory such as Harry Francis Mallgrave (1996, 1994, 2004) point out that the use of space as a conscious and essential concept in Architecture is due to Gottfried Semper (specially after *Der Stil in den technischen und tektonischen Künsten* 1861, 1863). Less thoroughly, the term of space had been used by other previous authors like Richard Redgrave (1851) or Arthur Schopenhauer (1818). Reconsidering the uses of space (or how that authors did refer to such a concept, if they did) before Semper's approach is one of the tasks when trying to reconstruct the history of space concepts.

The changes of the meanings of space term in four different translation into Spanish of *De architectura* by Vitruvius are analysed here in order to clarify a piece of the puzzle: some uses of space term in Spain before Semper's theory. The texts considered in this study are: the first translation of Vitruvius into Spanish, by Lázaro Velasco (1564); the first edition of Vitruvius in Spanish, by Miguel de Urrea and Juan Gracián (1582), Joseph Castañeda (1761) and the most complete and the strictest edition, by Ortiz y Sanz (1787).

Gathering the four texts indicated above, there are at least three uses of the expression space (*espacio*):

1. Space as a mere distance between two points or constructive elements of one building (like *intercolumnio*, *intervallum*, etc.) Being the most common use (it appears in all the translations), it was also given as the prevalent meaning of space in the first Spanish dictionary by Covarruvias (1611).

2. Space as equivalent to a place to remain, shelter, walk, etc. For example, the word 'space' appears with this meaning when describing the bigger place designed by Hermogenes between the *cella* and the peristyle of the 'pseudodipteral' temples (Book III, Ch. III).

3. Space as 'closure space', delimited and segregated from other spaces by means of constructive elements. This is also the core of Semper's idea of space and, even though it is not cristal clear postulated, it appeared in the last translation studied here when describing the way of building in some foreigner countries (Book II, Ch. I). However, this use is clearly minority because when Vitruvius

referred to an idea closer to this one, the words used in these translations are others: *salón* (hall) or *habitación* (room).

This study analyses the changes in these Spanish translations reflecting the uses of 'space' between 1564 and 1787, which is to say, a part of the 'prehistory' of space term in architectural theory.

Macarena de la Vega de Leon

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**Towards Authenticity:
Greece in *Modern Architecture since 1900***

In his *Modern Architecture since 1900*(1982) William J.R. Curtis attempts to present a “balanced, readable overall view of the development of modern architecture from its beginning until the recent past” and to include the architecture of the non-western world, a subject overlooked by previous histories of modern architecture. Curtis places authenticity at the core of his research and uses it as the criterion to assess the historicity of modern architecture. While the second edition (1987) of Curtis’ book appeared with just an addendum, for the third edition (1996) he undertook a full revision, expansion and reorganization of the content. This paper proposes that Curtis presented a more ‘authentic’ account of the development of modern architecture in other parts of the world with the third edition of his book. In the first edition (1982) of *Modern Architecture since 1900*, Greece appears only as inspiration to the work of Le Corbusier: the Acropolis is regarded as having made the greatest impression in the memory of the modern master. It is not until the third edition (1996) that Curtis discusses Greek modern architecture, embodied in the work of Dimitris Pikionis in the late 1930s and later on in the 1950s. It is also not until the third edition (1996) that Greece is ‘authentically’ addressed in terms of ‘national identity’, ‘universalism’ or ‘regionalism’. Between both editions of the book (1982 and 1996), regionalism in architecture was debated and framed in seminal essays and conferences by Curtis himself, Paul Rudolf and Kenneth Frampton. Focusing attention on the example of Greek architecture, this paper will seek to discern developments in Curtis’ discourse on regionalism between the first (1982) and the third (1996) editions of *Modern Architecture since 1900* from inspiration to authenticity.

Gul Deniz Dokgoz

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Critical Approach of Cubic House as an Image of Modernism in Turkish Cartoon

Civil architecture has an important role about the spatial effects of Turkish modernism movement on nation. Republican ideology desired to form the envisioned modern life by modern housing architecture which handled as a civil element for political modernization and was offered to the society as a public architecture. Young Turkish architects also have been main subject and producers of this civil architecture established by Republic. The traces of the modernization projects which supported by produces of modern housing architecture could be seen in many ideological and official publications. However, critical publications about modern housing projects especially must be investigated for comprehending the perceptual dimension of modernization project. At this point humor magazines, opponent and independent from government, were an important medium to reveal the civil perceptual dimension of modern house. Modern house was named in different terms in civil modernization concept but found its best expression in the term of "cubic house". The term of "cubic house", especially dominated in colloquial language, was a complimentary term in official publications at the beginning but also obtained a critical definition in humor magazines. Accordingly, critical process of the term of "cubic house" imprinted on the memories with its image and presented the spatial comprehension of the modern housing form. In this direction, modern housing approachment was a stylistic produce and was deprived without a conceptual structure -of which Western examples have- in architectural area whereas criticized modern house image has been an ideological critique area -instead of uncriticizable public buildings- through "cubic house" in cartoon.

Ruiqi Dou

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Conversion, Simplification and Differentiation: Three Rural Housing Strategies in China Based on Self- built Residence and Construction Solidarity

As most houses in the countryside of mainland China are built by local residents, it is difficult for architects to participate in rural housing construction, which hinders the improvement of research and design in this field. However, Construction Solidarity, a cooperative housing mode initiated by architect Hsieh Ying-chun, has been widely practiced in Hebei, Henan, Tibet, Sichuan and many other areas since 2005. This paper traces the development of Construction Solidarity in mainland China, investigates self-built residence and cooperative housing through case studies on three typical villages where Hsieh's studio carried out practice, and aims to find out strategies of rural housing with architects' intervention.

The author's research methods mainly include theoretical research, case study and field research. According to differences in building period, purpose, clients and participants, the author divides the development process of Construction Solidarity into three phases, and chooses Zhaicheng village in Hebei, Dongxincheng village in Beijing and Qilao village in Sichuan as three typical research areas to carry out field research by means of questionnaire, interview (with villagers, architects, government officers, etc.), mapping, mind-mapping analysis and comparative study, which focuses on the relationship between the folk houses built by the locals and the eco-friendly houses constructed in Construction Solidarity mode.

The result of the author's research mainly consists of these following three strategies of rural housing: Firstly, the conversion of space prototype, which establishes connection between the old and the new, and has completed the space reconstruction on the basis of ensuring the villagers' sense of home; Secondly, the simplification of construction technology, which builds association between industrial manufacturing and low-tech construction by adopting Light Steel Structure System; Thirdly, the differentiation of professional direction, which connects the architects and the natives, and redefines the architects as not only designers but also producers and distributors by building open system.

The current situation of self-built residence and the development of Construction Solidarity have proved the necessity and feasibility of architects' participation in rural housing and has presented three strategies. Nevertheless, there are still a lot of subjects for further

research, such as the balance between inheritance and transcendence during space conversion, the ways to ensure high-quality standards during technology simplification, and the methods of communication during profession differentiation.

William Albert Duncan

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&

Daniel K. Brown

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Heterotopia: After the Fall

Angela Merkel recently mandated that Syrian war refugees living temporarily in Europe must be repatriated once the Syrian war is over. But for many Syrians, their ancestral homes have been destroyed. This design-led research looks at innovative and culturally sensitive ways to repatriate post-war refugees back into their home villages – using contemporary architectural design that provides safe multi-family housing, while also acting as a memorial to a tragic disaster and establishing itself as a new symbol of hope.

The ancient city of Bosra, which has suffered significant damage by ISIS, is the design research site in Syria. It represents a significant loss not only of thousands of homes, but also wanton destruction of its ancient ruins, which represent its cultural heritage. This research project looks at speculative ideas for how these ruins can be directly and strategically implicated into the design for new housing for refugees returning to Bosra.

The research proposition is grounded in Michel Foucault's theory of 'heterotopias': re-conceiving architecture as 'counter-site' – inverting and contesting what would be traditionally considered 'real place'. The research argues that in this way, architecture can enhance societal awareness of the fine line that separates utopia from dystopia. The research integrates Foucault's theory of heterotopias with theories by Charlotte Catling on architecture taking a moral position, Penelope Haralambidou on allegory and architecture, and Cathy Ganoe on architecture and spatial narrative. Charlotte Catling argues that: "A new kind of 'activist' architect [is] emerging, one who doesn't wait for government commissions, but through direct engagement identifies what needs to be done and finds the means to make it happen"¹. Penelope Haralambidou argues that allegory can play a significant role in directly engaging these types of strategic activist visions – both through architecture as built work, and more especially through speculative architecture conceived as drawing and model. Cathy Ganoe

¹ Catling, Charlotte Skene. "The Naked Truth Architecture or Revolution." *The Architectural Review*. Issue Number 1412, Volume CCXXXVI, October 2014: 95-101. Print.

looks at how public awareness of these important issues can be enhanced by strategically incorporating narrative spatial theory into architectural discourse.

This conference paper “Heterotopia: After the Fall” for the 6th International Conference on Architecture in Athens examines the role speculative architecture – conceived as drawing and model – can play in addressing the repatriation of war refugees when their villages, homes and cultural artifacts have been lost. The design research proposes speculative ways to provide sanctuary and a renewed sense of homeland to Bosra’s returning citizens, while protecting and preserving key remaining areas of both the contemporary and ancient city of Bosra for future generations.

Lucia Frescaroli

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Ordinary Domestic Interiors. An Original Observation Inside Italian Homes

Looking at the last sixty years of the house design history, it's possible to find many wonderful examples of villas, apartments and other Italian houses designed by famous architects. But does this compendium of cases include the most common way of living? By starting from the popular domestic interiors, the essay defines a "new" category called *Ordinary Domestic Interiors*, following three points:

Quotidian and Ordinary: by discussing Michel de Certeau's *Practice of Everyday Life* and the more recent Daniel Roche's *A History of Everyday Things*, the essay explores meanings and contexts of quotidian and ordinary domestic life, and underlines the cultural and creative significance of its practices.

Investigating Domestic Interiors: by selecting different sets of advertisements, catalogs, articles, and pictures as primary sources, the paper analyzes the ordinary homes. It examines critically their origin, their aesthetic and sociological values, and their narrative qualities; thus, it defines *Ordinary Domestic Interior*.

Conclusions: by showing how ordinary interiors have been increasingly influenced by commodities, the market, and fashion-design trends, and revealing their intrinsic narrative and cultural discourses, the essay reveals facts and figures that have been playing major roles in the definition of the concept of "home", and the processes of home-making.

Ervin Garip

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The Role of Experiential Learning Strategies in Interior Design Education: Environmental Design Course and Case Studies in Yenikapi Coast Landfill Area, Istanbul

This paper mainly concentrates on experiential learning strategies and the role of experience in evaluating, analyzing and designing space. As a pedagogical strategy, doing case studies drawn from real-life situations by own, at the same time completing hands-on projects and assignments that emphasize applied learning over theoretical knowledge is essential for learning by doing processes. In this context, the study presents a descriptive reading through the experiences in the Environmental Design Course that was held in 2016 Spring Semester at Istanbul Kultur University, and in this sense evaluates the outcomes and the educational process. Case studies which were done in scope of the course and the design process are discussed. The students worked as groups on the selected site which is located in Istanbul's old historic peninsula. The site had a specific morphological characteristic; it was a giant urban square in Yenikapi Coast and was constructed for mass meetings and celebrations that had a 700.000-1.000.000 people capacity within 550.000 squaremeters. Therefore, it had changed the map of the historic peninsula. The students were encouraged to go and visit the site, make analyses and evaluations within the site and experience space. Referring to the experiences at the site, students made morphological analyses and semantic evaluations in groups. The analyses were structured as tests that were trying to find out the semantic and morphological evaluations of the students according to the assumption that each of them were the users of the space. At the end of the course, each group developed design ideas that pointed out their evaluations and analyses. It was observed that the students achieved to analyse, evaluate and find out the problems related with the site from their own perspective, and made design proposals related with the determined problems.

S. Banu Garip

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Experiential Learning in Interior Architectural Education: Experiences and Case Studies in Environmental Psychology Course

This paper focuses on the significance of experiential learning strategies and interdisciplinary collaborative work in Interior Architectural Education, specifically within the field of Environmental Psychology. In this context, experiences of a semester in 2016 at Istanbul Technical University, in scope of the Environmental Psychology Course and the case studies which were done in Istanbul by the students are presented and discussed within the paper. The structure of the course was constituted on the idea that the learner makes the direct contact with the cases by means of working both inside and outside the school. Therefore, the students were encouraged to go out of the school and work within the selected sites in every stage of the program. The students worked as interdisciplinary groups, selected problematic sites to work on, tried to understand the current state, analyze the study area and determine the problem by searching, discussing and brainstorming. 4 Case studies were conducted and the students designed the research by using the selected research methods, and collected information related with the determined problems. The students applied questionnaires, made face to face interviews and systematic observations within the sites. The titles were defined as "Istanbul Istiklal Street and Its Transformation within Five Years Period", "Mecidiyekoy Station of the Bus Rapid Transit System and Spatial Problems", "Living in High-Rise in Istanbul", "How Should Istanbul Haydarpasa Train Station Be Re-used?: Urban Memory, Attachment and New Interventions". Each group designed a research strategy and conducted field studies. At the end of the course, a questionnaire was given to the students in order to understand their evaluations about the process and to test the changes in their understanding of what a research is. As a result, students experienced a simulation of a research and systematically made an investigation on a problem within the urban space.

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&

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First Aid Center in Fotomena - Cameroon

Health and medical services are basic needs on humans today. As the World Health Organization defines: "... *Health is the state of complete physical, mental and social well-being, and not merely the absence of disease or illness.*"

There are many countries in the world today which lack basic medical services and this has raised concern of developed countries to undertake initiatives to provide and improve the basic medical amenities to humans internationally. This is done through human aid, social and health assistance, training projects involving institutions and universities through volunteer and exchange programs which augment assistance to each concern issue.

In our study we compared social and health sectors in Cameroon with other countries of the world. The study was concluded using statistics and graphical data (showing the 2013 statistics, source World Bank) which represents in-services, health system and social developmental access in Cameroon in comparison to other countries. Additionally, territorial screening was done which supplemented to our final architectural design of the First-aid center at Fotomena. While designing the First-aid center building, its social and environmental feasibility was given prime importance.

The construction of first-aid center has a master plan, and all constructions would abide the master plan. In accordance, the first-aid center was intended to be constructed in phases. The professor's at the Ferrara and Bologna University have laid out the phases of construction taking in consideration the interdisciplinary team of professionals like consultants, technicians, economist, etc.

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&

Maria Joao Soares

Research Fellow, CITAD / Associate Professor, Lusiada University,
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**A Transdisciplinary Dictionary of Architecture:
A First Approach**

This paper will serve as part of the groundwork for the creation of a transdisciplinary dictionary of architecture that is the result of inter and transdisciplinary research. The body of dictionary entries will be determined through the mapping of concepts that emerge during said research. The aim is to create a dictionary whose entries derive from the scope of architecture as a discipline, but simultaneously have full meanings in other disciplines. Or, even, define a hybrid disciplinary scope.

The various entries – such as, space, time, harmony, proportion, notation, presentation, modern, classic, architecture and cosmology, architecture and arithmetic, architecture and mathematics, architecture and music, architecture and cinema – will debate each concept in the context of history, the varying disciplinary interpretations, the differing implications those disciplinary interpretations have in the context of architecture, and the differing conceptual interpretations. The entries will also make reference to important authors and studies in each specific case.

Within the context of the dictionary idea, and indeed in line with that idea, the paper also aims to be a showcase and motive for debate on architecture in general, and architecture in contemporaneity in particular.

Ferhat Hacialibeyoglu

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“İzmir Centre of Architecture Building” in the Context of Re-functioning and Re-identification

Space exists as a qualified void. This void has a meaning if the function-user relationship is well handled. At that point void hierarchy, constitutes the main space and its sub-spaces, is designed integrated with aesthetical, artistic, functional and technologic necessities of the current conditions. Social transformations and changes in built environment and also emergent functional requirements cause that the original function of the space could not to bring present time. This situation accompanies with a problem that spaces could not use and stand idle in spite of their genuine historical and cultural values for related built environment. Re-functioning and adaptive reuse of historical buildings and also regaining the urban life of them is seemed as a conservation-sustentation method. This approach ensures the cultural continuity of architectural and cultural values. However, historical spaces, had a place in the urban mind, gain a new identity and are transferred to the next generations by integrating into the city life. In İzmir Alsancak wharf (current Port Area), Old Tekel Storage Building is an example of these situation as one of the early samples of storage function at the end of the 19th century. This building comes to the forefront with their central location and has a potential to make the architecture visible and to contribute the urbanite and urban life. Accordingly, this building was transformed to the "Chamber of Architects" and "Izmir Centre of Architecture" with a community-minded perspective and the idle building was integrated with the city life through its new identity, new functions and utilization practices. The re-functioning / re-identification adventure of building contains interdisciplinary and participative-collective design process. The main aim of this study is present the contributions of the building for environment, urban and urbanite with its functional varieties and new identity, and the potentials of the building that making the architecture visible and also discuss participative-collective producing model applied in its design process.

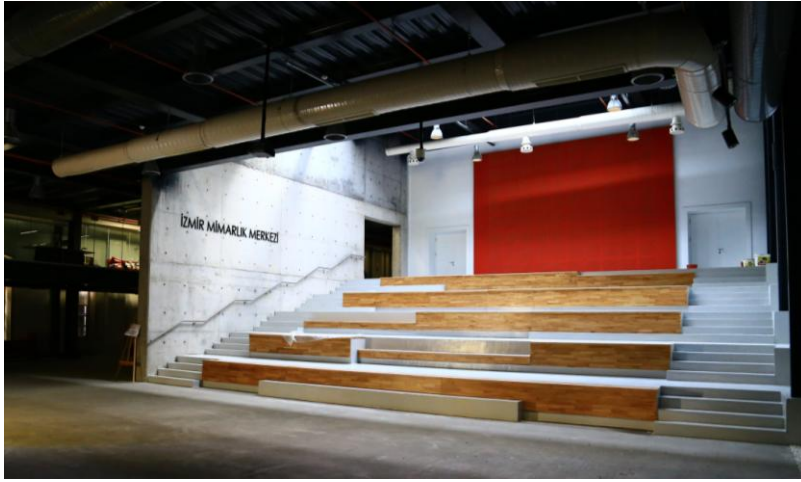


Fig.1. Entrance of the space-Informel stage

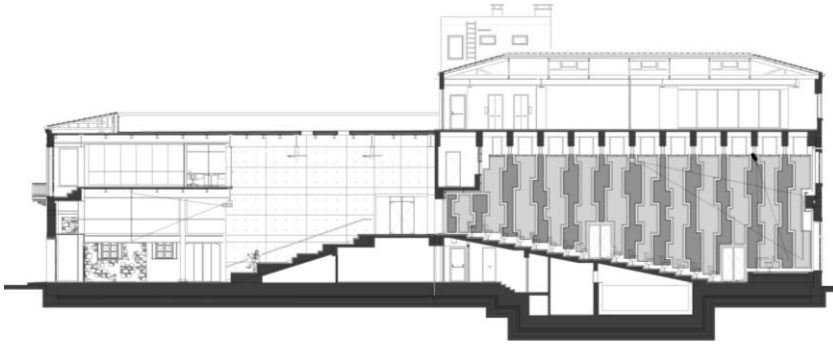


Fig.2. As built section-space potential

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&

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**Towards a New Tectonics in Bamboo -
A Comparative Cross-Cultural Case Study in Development
and Construction of Different Split Bamboo Constructions
with Arbitrary Double Curved Forms**

The idea of this project called COCOON is to investigate architecture designed with split bamboo from a sustainable low-key point of view, but with an experimental approach to material, form, construction and space, that involves architects and architectural students from different places and cultures with their unique individual backgrounds.

The project consists of three different built case studies 1:1. The first in South India, the second in Italy and the third in South Korea, which explores the use of split bamboo constructions to make arbitrary double curved forms in buildings.

COCOON I is a climate responsive building, that serves as an alternative learning centre for none educated farmers in Trichy, South India (Figure 1, 2). Cocoon II is a mobile and folding construction

used as a pavilion at the Milan design week 2015 in Italy. COCOON III is a doubled curved installation constructed in set pieces, that can be assembled in different combinations to adapt to different spatial situations.

The results show a unique approach to different split bamboo construction methods, where it is possible to merge new digital computer techniques with a craftsman's understanding of the bamboo material. The main design tools have been analogue models and digital computer models generated in the programs of Revit, Rhino, T-spline and Grasshopper. Inspirations have been light lattice

structures by Frei Otto and organic split bamboo constructions by professor Auwi Stübbs, Germany.

The project proves it is possible in the future to investigate and use the potentials of arbitrary double curved forms in split bamboo constructions for new sustainable architectural solutions.

Vimolsiddhi Horayangkura

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**In Search of Fundamentals of Thai Architectural Identity:
A Reflection of Contemporary Transformation**

The long historical development of Thai Architecture has revealed inherent fundamentals of architectural identity that reflect enduring Thai wisdom. Upon closer scrutiny of contemporary architecture, fundamental Thai characteristics persist in the present-day context, and would unveil the proper approach to Thai architectural identity development.

The research objectives focus on: 1) reviewing theories, concepts and guidelines of modern Thai architectural identity; 2) making architectural surveys in various regions of Thailand, especially prominent works; 3) identifying the concepts, inspirations and directives of creation held by architects and academics. Twenty specified architects and academics were interviewed and the outputs were analyzed through content analyses based on the research conceptual framework. Through integrated analyses of these studies, five major categories of fundamentals were revealed.

The abstract qualities reflect the enduring Thai spirit nurtured through conditions of tropical climate and Thai wisdom. The non-abstract characteristics are mainly the outcomes of localism for both traditional and contemporary architecture such as the use of local materials and the applications of formal pattern. Among the various dimensions of aesthetics, the two dominant aesthetic characteristics are the use of curvilinear lines, such as the graceful catenary curve, and refined ornamentation. Symbolism through the application of iconic images is apparent in both traditional and contemporary architecture in design elements such as the high-pitch gable roof and lotus-shaped motifs. Symbolism derives from the prevalent belief system such as reincarnation and cosmological model. Thainess encompasses the spirit-driven formal and popular development, and the joyful nature of the Thais regarding the formal multiplicity and colorful manifestation.

More research should be focused on the meaningful symbolic intervention rather than the iconic applications of conventional images and elements. Finally, the confirmed fundamentals would be the basis for creating a distinctive Thai architectural identity in the more globalized future.

Zhanfang Hu

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Thoughts of Modern Architectural Heritage Protection upon Current Cities - Taking Nanjing as an Example

Urban modern architectural heritage is the historical outcome of Chinese modern urban construction and social development, and the historical witness of current multi-culture. This paper starts the discussion from the issues of the protection and reutilization of urban modern historical heritage, and then takes Nanjing city as an example to study how to move the rational and orderly protection of modern architectural heritage forward. It aims to provide reference and inspiration for protection of Chinese urban modern architectural heritage.

Idil Karababa

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Layers and Frames – Spatial Organization of the Sanctuary of Apollo at Delphi

Some buildings pose good for photographs. We admire them from far away just by looking at their pictures even though we never see them in reality. The New Acropolis Museum in Athens is not one of these buildings. You have to be moving in it in order to fully appreciate it.

Bernard Tschumi's New Acropolis Museum in Athens has been a great matter of controversy during its construction and after its opening on June 2009. This building located at the center of Athens, on a site at the foot of Acropolis Hill, has been discussed within the context of Greek politics, Elgin marbles, its collection, archaeological significance of its site, its spatial organization.

This paper is not yet another attempt in understanding or criticizing the New Acropolis Museum. In this paper I will use this building's mode of spatial organization to explain the mode of planning at the sacred site of Apollo at Delphi. Acropolis Museum's spatial organization is mainly based on superimposed horizontal and vertical layers which constitute frames that can be viewed from different locations within the museum. These frames motivate the *flaneur* in the building to move and create sequences to experience it as a whole. Also through these frames the building extends to its surrounding environment or the surrounding environment is imported into the building.

Same kind of an effect can also be traced at the sanctuary of Apollo at Delphi. This site, located at a particular landscape at the southwestern spur of the Mount Parnassus overlooking the valley of Phocis, is organized on terraces which constitutes its horizontal layers. These layers constitute frames that foster movement in-between them. Movement among these frames are facilitated by ramps that direct the gaze towards the vertical layers defined by the landscape. Through this movement surrounding environment is imported into the site and the natural and man-made is integrated as a whole.

Eirini Kasioumi

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Emerging Urban Forms and Functions around Hub Airports

Thanks to increasing global movements of people and goods, hub airports have emerged as emblematic nodes of the globalized economy. Spatially, they have morphed into large complexes with intricate design and functionality, in order to respond to such global flows and the changing landscape of commercial aviation. Throughout their history, airports have embodied the influence of aerial mobility on the practices of urban space and have been places of architectural experimentation (Roseau 2008). Since the last two decades, they seem to trigger new urban forms and functions, spilling outside the airport fence. From extensive new terminals to exclusive ground transport systems, to hotel clusters, conference and commercial centers, airports become urban centers in their regions and their immediate environments. Certain models of airport-related urban development such as «airport corridor» (Güller Güller 2002) and «aerotropolis» (Kasarda & Lindsay 2011) have captured this dynamic, but their empirical robustness remains limited. Other studies have categorized the groundside effects of air transport (i.e. Cidell and Adams 2001), identifying common land uses (i.e. hotels, warehouses, sports facilities) but suggesting that their mix is unpredictable and context-dependent. In this paper, I provide some insights on the factuality of emerging forms and functions in airport areas, and their qualitative characteristics, through the study of their historical evolution in two important airports, Paris-Charles de Gaulle and Paris-Orly. Such studies are rare for European airports; this analysis, part of a doctoral research on planning strategies in airport areas, contributes to filling this gap. The paper is structured around three parallel investigations: first, concerning the major projects within the airports (new runways, terminals and other buildings); second, key projects in their vicinities (new transport links and airport-related developments); and third, land use change in their areas. It concludes with a small comparison of the findings with other airport areas in Europe. Thus the paper draws attention to emerging urban phenomena associated with airports and positions them within the broader landscape of emerging urban forms in global metropolitan areas.

Ursa Komac

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Public Space as a Public Good

This paper explores the public space as a public good. Public space is understood as a 'void' in the urban continuum that has unlimited access for the city dwellers. We study the public space as a physical, material space, as imaginative material space and as a formative part of the public domain in order to answer the following question: what are the aspects of public space that articulate the city?

The public space is necessary for social and economic reasons. The city needs both spaces to socialise, meeting places, and spaces for the enjoyment of solitude. A public park can at the same time fulfil both social needs. The economic reasoning has to do with efficiency. It is indeed unfeasible for each person to own a garden with majestic trees, a large pond and a vine-covered pergola. But many people could for example at the same time use a public park that has all these features.

The public space as defined in this paper has the two characteristics that define a public good, namely non-excludability and non-rivalry. Public spaces are non-excludable by definition as everyone can access them. They can be, and sometimes are, to an extent non-rivalrous. That is, the enjoyment of a user does not detract from the enjoyment of any other. It follows that when users start to interfere negatively with each other's enjoyment the public good becomes congested and it is not able to perform all or some of its functions.

Nezihat Koskluk Kaya

Associate Professor, Dokuz Eylul University, Turkey

The Interrelations of Tangible and Intangible Cultural Properties in Buldan

Discussions about intangible cultural heritage emerged through the process for defining cultural heritage of humanity and developed for correcting the deficiencies of those definitions. In this respect, these discussions were not oriented for creating dissociation in the understanding of cultural heritage, but emerged as the product of the endeavor of understanding and re-defining the entity. This research aims to examine the relationships between architecture and intangible cultural heritage in a historic environment called Buldan.

Buldan which is one of the well-preserved districts of Turkey has been a settlement area for different nations throughout the history. Its economy is based on textile. In Ottoman times convoys of camels loaded with fabrics for the palace used to set out from here every year. The traditional Buldan houses, possessing mainly textile industry function, differ from the other Ottoman houses. The textile industry shaped the architecture and the details. These houses were formed with extra spaces where the textile functioning could be held. The houses have two main spaces as the loom room and the sofa. Generally, the loom is situated on the ground floor which is shaped according to the organization of this loom. There is a strong correlation between the textile industry and the architecture in Buldan.

The aim of this work is to present the Buldan houses and the details shaped by the textile industry and to propose suggestions for preserving the historical frame of this location by evaluating physical structures of the site that reflects the values of cultural accumulation and life style for a certain period.

This paper analyzes historic built environments as an entity of tangible and intangible cultural properties. It mainly puts forward the assumption that intangible and tangible cultural properties need to be conserved together in historic environments. In this sense, it analyzes the interrelations between tangible and intangible cultural properties, in other words, built environment and culture. As a conclusion, it puts forward possible conservation approaches for the sustainability of the integrity of interrelations between tangible and intangible cultural properties in Buldan.

Nico Kotze

Professor, University of Johannesburg, South Africa

The Built Environment and Politics in Bo-Kaap, Cape Town: The Conservation of a Neighbourhood

The Apartheid Laws of South Africa have had a dramatic impact on the population of the country due to the allocation of living space according to race. However, Bo-Kaap and old inner-city working-class neighbourhood in Cape Town and its inhabitants was protected from relocation by the introduction of these same laws. By the 1930s, the neighbourhood had degenerated into an overcrowded and run-down slum, consisting largely of dilapidated houses. By 1934 the area was declared a slum area and by 1941 about 150 housing units had been expropriated by the local authority for redevelopment in a comprehensive renewal scheme for the area. Due to the efforts and involvement of the poet/academic I.D. du Plessis and Dr Jansen the entire neighbourhood was declared a national monument by Historic Monuments Commission (HMC) of South Africa. This placed the entire process in a state of checkmate because without the consent of HMC no redevelopment could take place. In 1957, under the Apartheid regime, the area was declared a "Malay Group Areas" and from 1962, no other population group, apart from the designated "Cape Malays", could own property in the Bo-Kaap. At present, the area with its colourful housing units and 11 mosques and vibrant population is part of Cape Town's cultural heritage and a very important tourist attraction. Property prices have increased dramatically, but are still relatively low, while the number of properties sold is also on the increase. The community leaders and especially the Muslim residents are in a constant battle to retain the neighbourhood's cultural identity.

Raffaella Maddaluno

Assistant Professor, University of Lisbon – CIAUD, Portugal

Fernando Távora: The Journey as an Instrument of Experience and Transmission of the Architectural Discipline

The journey for the architect Fernando Távora, master of the "School of Porto," has been a part of a method of progression of his own cultural background. Numerous the occasions: some trips to Spain, Italy, a trip around Europe in 1949, traveling on the occasion of CIAM. His years of training culminate in a trip around the world in 1960, thanks to a grant from the Gulbenkian Foundation in Lisbon, which allows him to visit for 4 months USA, Mexico, Japan, Thailand, Pakistan, Lebanon, Egypt and finally Greece. The journey is the medium to build mentally and physically a living, direct, intelligent, without filters of interpretation, with the non-specialist "knowledge" of places and people. He considers fundamental for the discipline of the project the basic principle of "first live, then design". He writes daily on this trip a chronology of the events, and produces a lot number of drawings of all the places visited.

His journey ends in Athens, where finally, he reflects on the idea of time and on how is important to remove the "measure" at the time of the event, whatever it is. "It is curious - he says - as our civilization, beyond its economic wealth, ignores the importance of the Agora in its full meaning. In fact, in the United States, for example, the time to talk during a walk or to walk during a conversation does not exist, because all the talks and all the movements have a practical, useful, eminent and concerned purpose". There is a form of TIME appropriate to transmit an "architecture lesson"? There is a practical experience of the trip that the lesson of Fernando Távora has transmitted to whom recognizes him as a teacher? The paper's aim is to tell some of this kinds of themes of the diary.

Vladimir Mako

Professor, University of Belgrade, Serbia

The Aesthetics of Transformation

In the context of the traditional definition of aesthetics as the “science on beauty”, the title of this paper can be understood as a contradiction in the first place. Traditional search for beauty is the search for completeness, balance and wholeness. What is in transformation can be thought as unfinished and tolerated only if the observer has the possibility to anticipate the final idea of the artist, as for example in Leonardo’s “Adoration of the Magi” at Uffizi. However, the contemporary theories on aesthetics, particularly in architecture and city building, insists on dynamism of perception which is based among other principles, on aspects of ambiguity, ambivalence, actually on effects of transformation and the sense of unfinished. These aspects are tools of creative thinking, and usually they can be defined in a different way than in traditional theories.

In that context, “unfinished” does not reveal the final idea, for it is not anymore just a state in between in completing a work. As a notion it is governed by the forces of social, economic and cultural necessity. As an aesthetic experience it is an aspect which involves the consumer and observer into the process of “completing” a work through its personal anticipation of what the final idea or work may be. “Unfinished” means the possibility for many final solutions through the process of continual transformation and development of space. That is the reason why the aesthetics of transformation exists preferably as an urban concept, referring on the sensation of constant dynamic changes of the urban structure.

In the sense of in-between-ness it reveals its full creative capacity.

Shannon Aya McGrath

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Recontextualizing the Architectural Manifesto

Focussing on the recontextualization and reinterpretation of the architectural manifesto within contemporary society, this paper attempts to outline the potentiality surrounding various forms of written and aesthetic production which have the capacity to operate as a mediation between the self and the built environment.

Architecture can be said to be in a state of crisis. A crisis which before the rise of capitalism and the resulting culture of commodity fetishism was unprecedented. Often fortified by the post-ideological point at which the discipline of Architecture has now arrived, an assault by various simulacra, simulation, and superficiality have generated an image driven society. Subsequently a need for viable forms of aesthetic expression that work to reinsert the individual into society has now become clearly discernible.

An interpretive analysis of *SMLXL*, as a contemporarily viable manifesto that reorientates architecture to meet a multimedia age, is the focus of this paper. Here, *SMLXL* is presented as an example of how certain platforms which facilitate or inspire architectural discourse are able to cultivate an integration of architectural design, discourse, and practice into the collective multimedia real.

Riitta Niskanen

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Time of Great Changes in the 1980's Lahti as an Example

Finland went through a strong economic boom in the 1980's. A citizen became a consumer. Everybody wanted to enjoy life and its possibilities. An American origin term 'shoppailu', shopping, was taken in. The culture also was turned into consumer goods, and it became slowly commercialized, maybe plain, too.

On the crest of the boom Finland built, no more department stores but hypermarkets and malls, no more public swimming pools but spas, no more playing fields but recreation centers and multipurpose halls. The town and the whole life was a stage.

From the 1970's onwards Lahti city center began to enlarge in the area of Paavola which was an old garden suburb from the 1920's. The policy-makers dreamed of a new commercial area and culture center.

The new Paavola represented totally new architecture: marketplaces, squares, plazas, towers, gates, pavilions, bridges, glass roofs. These were the new architecture of the 1980's which was based on the new city actions as all kinds of spectacles like graffiti, big polterabends, fleet markets, happenings, 24-hour boat cruises, typical to this era.

Paavola turned the old city hierarchy upside down, too. The silhouette of Lahti had been ruled by the traditional European elements, the church and the town hall, under whose realm the business and culture buildings submitted. Paavola was based on a new kind of low zone structure where different functions revolve each other. The market zone was built next to the city center, and the culture zone located behind that. An open parking field became a basic unit of the town fabric.

A new landmark of Paavola was a glass tower of a shopping center with representation rooms and a terrace of a bank high up in the skies. What a symbol for the era of consuming party!

Isa Pasqualini

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Visual Touches and Touching Views

Embodiment is related to the architectonic experience of built space, beginning with the Vitruvian «lineaments», Alberti's architectonic «just as with animals members relate to members», Semper's «cloth», and, in the 19th century, the theories of empathy describing the kinesthetic effect of architecture on the human body. Embodiment is a key aspect of virtual space, where, as in Merleau-Ponty's phenomenology, the body is introduced as «third figure» in the artistic figure-ground scenario. In this sense, how does an observer relate to architectonic space through her feelings? Is there an immanent interaction between the architectonic interiors and the observer's experience of his own body in space? Cognitive neuroscientists have been studying the effects of embodiment or bodily self-consciousness by focusing on the unity between the subjective feeling to own a body or body ownership and to exist at a unique position in space. Bodily self-consciousness can be manipulated in the laboratory, influencing the unified conscious experience of one's own body in the so-called Full-Body-Illusion, by dissociating visual from tactile stimuli between one's own and an artificial body. In this way it has been shown that body ownership can be induced for an artificial body, along with the experience of its location. Visual stimulation of an artificial body can also be synchronized with the participant's heartbeat to induce an interoceptive sensation. In three different experiments performed at the Laboratory of Cognitive Neuroscience at EPFL, we combined the Full-Body-Illusion with several architectonic interiors in virtual space, revealing that there is a strong relationship between architectonic elements located closer to the body, and the way in which space is perceived. I discuss the role of the artificial body or avatar in the virtual interior, as well as the different emotional effects evoked by bodily and abstract blob shapes.

Srisak Phattanawasin

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Courtyard Compact House: An Alternative Solution for Self-sufficient Architecture in Bangkok Urban Area

Due to economic changes, population growth and urbanization, today's dwelling spaces are becoming smaller and smaller according to the tiny plot of affordable land. However, based on these limitations for urban context in tropical regions, one of the alternative solutions for residential architecture, "Courtyard Compact House" has been developed. Its building configuration has been integrated between the courtyard planning in the past and compact living space in present day.

This article demonstrated the architectural concept of Courtyard Compact House and the analysis of its design efficiency reflecting the socio-cultural and environmental dimensions. The research methodology conducted through the selective case studies of Courtyard Compact House in Bangkok to answer the questions about a privacy and social interaction as well as the energy saving. On the socio-cultural aspect, as analyzed by using Space Syntax, the building configuration encouraged the social interactions of family members in the open courtyard area, especially the courtyard with main crossing paths. Moreover, on the environmental aspect, as analyzed by using Computational Fluid Dynamics, and ECOTECT stimulation, the design planning had many advantages of energy saving such as, natural ventilation design due to opening courtyard, solar radiation protection due to calculated shading area, and daylight gaining due to enclosed transparent walls in the suitable orientation. This design-research therefore revealed that the concept of Courtyard Compact House would revitalize the past courtyard planning's merit back to the nowadays solution for self-sufficient architecture in urban limited area of tropical metropolitan cities such as Bangkok, Thailand.

Rossella Putzolu

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The Joseph Lemaire Sanatorium in Belgium: A Forgotten Modern Masterpiece

The *Joseph Lemaire* Sanatorium opened in September 1937 in Tombeek, Flemish Brabant (Belgium), to treat TBC – ill workers. This building belongs to the series of masterpieces of sanatorium typology, which spread since the beginning of XIX Century and reached its highest levels of modernity during the 30s, following the International Style principles: beside this one, we find the *Zonnestraal* Sanatorium in Hilversum (Holland) by Duiker and Bijvoet, the Aincourt Sanatorium by H. G. Pingusson, the Alvar Aalto's *Paimio* Sanatorium etc.

Built by the *Prevoyance Sociale*, an assurance company, the Lemaire was designed by Maxime Brunfaut along with his father Fernand and the collaboration of Joseph Lemaire, the Director of the *Prevoyance Sociale*. It was designed to host 150 male patients, with a main building reserved to the hospital functions, a perpendicular wing for the general services, a ball room and a leisure room, superposed, that form a bulging wing on the south façade.

The Modernity of this work is traceable certainly in the composition and in the constructive technology of the complex – for which Brunfaut chose single blocks instead of detached pavilions like in *Zonnestraal* – whose structure is made of a concrete frame, with isolated doubled walls filled with cork. Expansion joints are provided along the total length of the building creating eight independent parts. Externally, ceramic tiles were fixed to the main structure with a particular joint of mortar and metal hooks to grant their expansion and stability.

Brunfaut's formal language is strongly modern also because he took in highest consideration the distinction amongst functions, services, spaces dedicated to clinic duties, those dedicated to the leisure of patients and those intended for the services and administrative functions. Moreover, he paid attention to the technical features of each part, either under the principles of Hygienism either to the Functionalism typical of Modern Movement: we can see them in the impressive system of the main staircase designed to separate visitors and patients, to avoid accidental contacts and to easily disinfect it. The fate of this building was, unfortunately, cruel: at the end of 1980s it was closed and dismissed, so degradation and decadence took over it in a few years. On one side natural environment reclaimed its former places, invading the structures and the outer spaces; on the other the lack of maintenance and frequent acts of vandalism transformed the building from a jewel of the Belgian Modern Movement into a devastated ruin

with serious problems affecting fixtures, inner spaces and loaded parts. Despite its inscription as an historical and architectural monument in 1993, only in 2011 – after continuous thefts of its furniture and technical parts – the Flemish Minister of Cultural Heritage allocated funds for its restoration, which is nowadays still far from being concluded.

Ingrid Quintana Guerrero

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**Latin American Collaborators at Le Corbusier's Studio:
The Case of Rogelio Salmona [History of Architecture and
the Built Environment]**

This paper aims to explore the role of preminent Latin-American architects of the second half of 20th century, as draftsmen of Le Corbusier inside his Parisian atelier. Based on primary resources, mainly from Fundación Rogelio Salmona and Fondation Le Corbusier (plans, sketches, mails and notes), we will focus the case of Colombian (French-born) architect Rogelio Salmona, through his internship and later professional collaboration with the Modern master, between april 1948 and july 1954. Salmona had one of longest direct participations at the *atelier* between the young architects from Latin America, and he was one of the persons involved in the the biggest number of projects (29). Even if Salmona's engament in those proposals was irregular, and beyond the well-known differences between him and his mentor, this presentation also pretend to highlight his influence of Colombian in the methods and results of those works. The list mainly concerns individual housing programs (Maisons Jaoul, maisons Roq et Rob, Maisons de péons at Chandigarh et Villa Chimambhai, maisons type Rochelle at Roubaix and Briey Ville-Neuve) and urban planning (Rotterdam Neighborhood at Strasbourg, Plans for Marseille Veyre, Marseille Michelet and Bogota, Capitol of Chandigarh). As an inovation in relation with recent thesis and dissertations about this subject, we do not examine our study case as an isolated phenomena, but we always consider the situation of Salmona's colleagues and fellow citizens. Also in opposition to the majority of former investigations about disciples of Le Corbusier out of Europe, characterized by its euro and anglocentric approach, our paper searches to place Latin-American actors as key characters in the History of Modern Architecture and no as periferical witness, even if it was about a young and naïve professional network.

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&

Reese Christensen

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Testing the Pattern Language Theory in Five Italian Piazzas to Derive Lessons for American Public Urban Open Space Design

In many American cities, the social life manifested in public open spaces leaves a lot to be desired when compared with many of their counterparts in Europe. Though it can be argued that cultural and climatic factors are the main determinants of these differences, this paper posits that physical characteristics, i.e., urban design parameters, are equally, if not more, influential on the performance of these places when they are analyzed in terms of urban social life.

To demonstrate this claim, place-based qualitative research has been conducted on five well known urban public places in two Italian cities: Piazza Navona, Campo di Fiori, and Tiber River Bank in Rome, and Piazza San Marco and the canal Bacino Orseolo in Venice. Discovery, description, analysis, and interpretation, followed by the synthesis and conclusions comprised the successive phases of research, which aimed at understanding the framework necessary to

initiate, nurture, and sustain intense public life in these successful urban open places.

The urban design principles identified in the field research of these five places, were tested in terms of their compatibility with the “patterns” put forth in Christopher Alexander et. al.’s seminal work *A Pattern Language*. In conclusion, five C. Alexander patterns were found to be present in all while each specific location had at least two or three patterns that are unique to each. The common patterns are *Subculture Boundary* (13), *Activity Nodes* (30), *Positive Outdoor Space* (106), *Hierarchy of Open Space* (114), *Activity Pockets* (124).

Unique patterns were:

Piazza Navona: *something roughly in the middle* (126) *sunny place* (161), and *night life* (33), Tiber River Bank: *access to water* (25) and *night life* (33), Campo di Fiori: *Market of Many Shops* (46) and *Something Roughly in the Middle* (126), Piazza San Marco: *activity pockets* (124), *arcades* (119), and *dancing in the streets* (63), Canal Bacino Orseolo: *entrance transition* (112), (*access to water* (25) and *pools and stream* (64)

The conclusions of this research will be intensely illustrated with analytical sketches and photography of each site and verbally narrated.

Maria Paola Sabella

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The Project of 'Palais de la Société des Nations de Geneve' by Le Corbusier in Cahiers d'art

Christian Zervos (1889 - 1970) it was a greek publisher that lived in Paris. His professional experience was Cahiers d'art (1926-1970), that was a publishing house, a magazine, a gallery of art and point of reference artists, studios of art, architects that lived in Paris between the first and the second part of the Novecent.

Christian Zervos, inside Cahiers d'art, has made Le Corbusier the most important architect in the section 'Architecture'.

There are many articles about Le Corbusier and also written by the architect himself. Regarding the project for the 'Palais de la Société des Nations de Geneve', is important to mark that this work has been taken in examination by its first exit up to the result of the contest.

Is remarkable as the contest has constituted an appendix inside the magazine Cahiers d'art, in which were taken in examination the phases of the selection, both with reference to the other projects and with a particular attention for the project of Le Corbusier and Pierre Jeanneret. The most important section is the analysis of the palmares: a general attention sustains him to the more projects to the state-of-the-art one, contesting the various results and also the winning project. In the specific, is very important the rich reference to the thematic that puts in comparison Contemporaneity, Modernism and Classicism.

Monica Saeter

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Design Principles for a Sustainable Lighting

During 2014 a study in Lighting Science was performed within Swedish Institute for research in lighting science. The ambition with the study was to define design principles for an increased use of daylight and by that an optimized energy efficiency for lighting. The study is based on data from a post doc project performed during 2013 at Chalmers [Säter, 2014 a].

Methods used was visual analysis's of the appearance of daylight in a space during a year [Säter 2014a]. It also concerned research in methods for energy efficient lighting design [Säter 14b] that was developed within the post doc project from Chalmers [Säter 2014a].

Results shows that to be sustainable, lighting need to be designed adaptive to daylight, accept daylight as it appears in the space and be designed related to the light levels outdoors. This will give a natural rhythm in the ambient light, increase the use of daylight, increase energy efficiency and support human diurnal rhythm in a better way.

It can be concluded that lighting in order to be a part of the future low energy buildings need to be designed based on an adaptive approach to daylight. The natural lit environment that follows an adaptive approach to daylight, need to be accepted.

When the lighting that is designed static or dynamic and planned without contact with the rhythm of daylight outdoors, is compared to an adaptive approach that is designed in connection to daylight, the adaptive approach will increase the support of the user, decrease negative effects of lighting for humans, animals and ecosystems and reduce energy costs for lighting.

During 2015 a complementary study was started within the Interactive Institute in Eskilstuna that will add existing and new daylighting techniques and ICT. This will increase the energy saving potential of the concept.

Sawsan Saridar Masri

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Improving Architectural Pedagogy toward Better Architectural Design Values

... structure is columnar, planar, or a combination of these which a designer can intentionally use to reinforce or realize ideas. In this context, columns, walls and beams can be thought of in terms of concepts of frequency, pattern, simplicity, regularity, randomness and complexity... (Clark and Pause, 1985, p.3)

Since earlier urban settlements; buildings, structures and monuments have revealed the work of the master builders who reacted to the social, political and religious needs of their age with their aesthetic creativity on one hand and the technical excellence on the other. Today, while architects regret the inhumanity and formality of structural engineers towards timeless values in architecture such as aesthetics, structural engineers criticize the architects for their lack of essential structural engineering knowledge.

This research aims to improve the pedagogy of architectural design studio along with efficient structural and technical content of the curriculum delivered to architecture students, for a better integration of architectural concepts with structural solutions.

Architecture programs at Lebanese universities have been selected as a case study where course content, instruction modes and method of teaching structural subjects are examined, as well as students' performance and perception in integrating technical knowledge in their design projects. This selection has been due to a primary hypothesis indicating that some amendments are required. The study investigated that students show difficulties to integrate structural strategies with architectural decisions, and most of structural and technical courses have pathetic standing accompanied by student loss of interest and enthusiasm.

Eldin Shahira Sharaf

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Reflection on Practical Implementation of Virtual Reality in Interior Design Teaching Studio

The advancements in Information and communication technology are reshaping the architectural design studio teaching and design practices. The digital-imperative to switch from analogue to digital mode has already begun to manifest itself at the schools of design.

This paper introduces the foresighted step in revitalizing architectural interior design studio teaching by the application of collaborative Virtual Reality in the design studio.

The paper reflects on the practical implementations approaches including design process, communication and presentation, studio pedagogy, and students' learning. The next step ahead for architectural interior design studio teaching in which virtual reality is acting as a partner is introduced. In this paper a co-design process and implementation requirements of an interactive interior design service system is demonstrated.

The study depends on the integrated research methodology through descriptive analytical method as well as the experimental method through the description and analysis of the use of virtual reality applications in architecture education, and experimentation through the use of the cave to simulate students work to investigate the impact of technology on creativity in the design studio.

This paper reports the design process and results of the co-design sessions; and evaluation of the Virtual reality functionalities in design studio and architecture education.

Yonggao Shi

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The Evolving Vernacular: What Position and Situation Mean to the Life of Vernacular Architecture

Vernacular architecture is often viewed from a static perspective, which results in it being a relic either to be preserved or ruined, rather than a living body capable of coping with the contemporary life. Following a brief speculation on the notion of vernacular architecture, this paper lists a remote and even secluded village in the southwestern part of China as a typical model to study, finding out that true vernacular architecture always grow out of responses to specific conditions, and the adaptive accumulation of such responses in the historical time. The paper then elaborates, through two extreme yet different cases and a relatively ordinary and mild case, on the approaches of regenerating the vernacular under different circumstances. With all these researches from different perspectives, vernacular architecture is presented as, in the ultimate sense, the materialization of daily human practice; and the essence lies in its facing problems boldly, refusing any predetermined or dogmatic thinking, and taking advantage of the handy sources wisely. Based on these studies, the paper finally expounds two notions: Position and Situation, asserting that the routine static attitude to vernacular architecture should be discarded, instead, a careful study of the position and situation of architecture should be conducted, because only through this can the life of vernacular be regenerated and the ways of this regeneration found.

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**At and with the Sea:
Le Corbusier's Path towards a "Desiring-Machine"**

This paper aims to place Le Corbusier's thought and work in a contemporary realm through Gilles Deleuze and Félix Guattari's philosophy.

At and with the sea

In his book *Le Corbusier: The Architect on the Beach* (2011), Nicolas Maak writes: "In one of the most beautiful passages that Valéry wrote", said Walter Benjamin, 'the sea and mathematics enter into a captivating union'. This combination of rules with chance forms that can only be found, not invented, would later become a central philosophical motif in Le Corbusier's writings."

Le Corbusier's writings, drawings – about found objects thrown by the sea – paintings, sculptures, and, of course, architecture.

Le Corbusier's readings of Paul Valéry (1871-1945) legitimise his passion for the sea. They legitimise his relationship with the *objet trouvé* – or *objet à réaction poétique* – which would help him to elevate his work to a new level. The *objet trouvé* as an object that would "speak" to him as an "evocative friend". A witness. A path to architecture, as a process, where intention and chance consolidate construction and knowledge principles.

Desiring desiring-machines

Whilst Paul Valéry speaks of art as a "machine to impress the public", we can go further – returning to the old notion of the *machine à habiter* – and establish a new vision for Le Corbusier's architecture as an apparatus that leads us to Gilles Deleuze and Félix Guattari's "desiring-machine".

The apparatus as a reflection of Le Corbusier's longingness for the Mediterranean Sea – and for the *objet à réaction poétique*. We can assume this object (*à réaction poétique*) as a conductor of the immanent possibility of a non-preconceived form, as the conductor of an "open" thing that thrives, as an infrastructure, for the *machinic*. Something that goes beyond the traditional antinomies of modernism.

With the Modulor, Le Corbusier adopts the status of the body as an anthropomorphic machine. Body as armature, *machinic* system, and material flow. With his Convent of Saint-Marie de La Tourette (1953-60) and the anti-structural compositional relationships it establishes, Le Corbusier opened up a path for the *machinic* into the realm of architecture. The Convent is a set of organs without a body encasing them: a centrifugal force launches the organs into the space without releasing them. Architecture as an exposed organism, *machinic* system, and part-object. A "desiring-machine".

Living-in-a-living-object

In *L'Homme et la coquille* (1937), Paul Valéry writes about the paradoxical identity of living creature and shell. Where does the mollusc end and its shell begin? All as one, living in a living thing.

With this in mind, we go from La Tourette to the Chapel of Notre-Dame-du-Haut (1950-1955) – a post-desiring-machine. The Chapel is a body: a centrifugal force that takes control of its organs, designing its own interiority. From non-unity as a whole to *machinic* unity as an engulfing whole. A part-object swallowed by an internal organism. And we are reminded of the seashell negative imprint in the concrete panel.

Paths towards a living-in-a-living-object, towards a new architecture.

At the end, Le Corbusier has "given" his body to the sea.

The sea: the end: a new beginning.

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Study of Green Building Certification Programs in South Korea

Nations worldwide are adopting measures to battle climate change by setting targets to reduce greenhouse gas (GHG) emissions, South Korea has pledged to reduce its GHG levels by 37% by the year 2030. In cities such as the nation's capital of Seoul, the operation of buildings account for over 60% of the GHG emissions.

To target its building industry, the Korean Government developed a green building certification program G-SEED (Green Standard for Energy and Environmental Design), which includes mandatory and incentive-based measures to optimize building performance, such as energy, water and waste, to significantly which is enforced by the Ministry of Environment and the Ministry of Land, Transport, and Maritime Affairs.

The G-SEED program is expected to be more effectively implemented in comparison to other voluntary programs that are currently on the market. One of them is the LEED (Leadership for Energy and Environmental Design) program developed by the U.S. Green Building Council, which is adopted internationally.

The study aims to extrapolate the success and failures of the Korean G-SEED Program, and discuss the validity of the alternative programs, such as LEED, in South Korea.

The study firstly analyzes the G-SEED program's implementation process through literature review of Korean publications on the topic. Secondly, a comparative study is performed to investigate the differences in the evaluation and accreditation systems. Thirdly, surveys and interviews were conducted with members of the Korea Green Building Council to understand the roles of the stakeholders, i.e. the government, the accreditation authority, the design consultant and the client.

Preliminary results show a higher rate of implementation of G-SEED compared to LEED. The public sector and residential sectors are the most affected. And, while LEED is adopted in the private sector, it is sought for in addition to having G-SEED. Government implication in Green Building Program effectively promotes green building certification, however the quantifiable targets were less strict in comparison to LEED.

This study is a part of a growing body of research on the implementation process of green building certification programs in different countries.

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Controspazio and the Autonomy of Architecture (1969-1973)

The magazine "Controspazio" was founded in 1969 in Milan by Paolo Portoghesi from the experiences and relationships he gained as Dean of the Faculty of Architecture at Milan Polytechnic characterized – at that time – by an educational attempt at renovation called *Sperimentazione*, which started in 1963. "Controspazio" was a reaction and an action to control the position of the magazine "Contropiano". The will of opposition is unconditionally declared in the choice of the magazine's title: "Controspazio" vs "Contropiano". The cultural project proposed is clear: on the one hand it preached the politics of abandonment – starting with Tafuri's writings – and on the other it preached a policy for the project; on one hand it revealed the futility of the projects and on the other it published useful projects resulting from theoretical research.

From this initial phase "Controspazio" gradually establish a position that allowed it to proclaim the autonomy of architecture and the centrality of the project as the only way to have an effect and politically act in situations. For this reason the editorial board involved different architects which embodied this struggle, Aldo Rossi in primis.

In a climax of tension the production of the magazine was suddenly interrupted in 1973: the Italian Ministry of Education suspended Paolo Portoghesi, Aldo Rossi and others; Ezio Bonfanti died and the magazine was forced to move to Rome without Massimo Scolari.

The place for debate then became the XV Triennale where the *Tendenza* was presented to the public as a group and this time the director for the architectural section was Aldo Rossi. So is possible to trace a red line which crossed all the events and led us to the next developments in the international architectural situation.

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Participatory Entrepreneurial Learning for Architects

Sustained design prominence requires that the designer be supported by a viable, organised and well managed firm. Despite the fact that the logic of this statement is widely accepted, entrepreneurship education and training, for a variety of possible and valid reasons, does not receive much space and time in the curricula of many schools of architecture.

However, this is not necessarily problematic because it moved entrepreneurship learning for architects from architectural schools to architectural practices and architectural professional associations and institutes such as the RIBA and thus from the realm of education to that of training. Many entrepreneurship education theorists will argue that this is a good thing because this is exactly where education for entrepreneurship (as opposed to education about entrepreneurship) should take place. This move implies an enacted format where architects learn by doing, dealing with crises and making mistakes coupled to reflection resulting in what Jason Cope referred to as significant learning.

What currently is missing in this process is an organised framework that will allow and facilitate the participation of experienced architectural mentors and facilitators who can, through their participation, assist, advise and guide architects throughout this difficult process of learning the finer nuances of architectural entrepreneurship, by sharing their wealth of experience and knowledge with these experiential learners.

This paper, based on a literature review, will explore some formats proposed for participative experience-based entrepreneurship training in order to highlight the importance and roles experienced mentors can play within such an entrepreneurship training framework if it can be formalised as part of a supportive structure that will assist in allowing architects to play their rightful roles in society on a sustainable basis.

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Making Places: Environmental Gerontology

When we think of aging in place we often think of manipulating our homes with the goal to accommodate the physical challenges which come with growing older, reaching 50, 60, and 70 or beyond. Today's older adults age 50 and older, the so called baby boomers, see the world through their life experiences which are shaped by up and downs, a better understanding of self, compared to their parents' generation. For the baby boomer, aging in place is not a concept for tomorrow, but something they will invest in right now as they move ahead. For the baby boomer aging is about growth and not about decline. Universal design, a concept which accommodates our needs to negotiate our living and work spaces at all ages, seems to fit right in with the baby boomers attitude to see opportunities and to grab hold of them, making the world work.

For the most part, today's older adults nearing retirement age are looking forward to the years ahead as workers, caregivers, volunteers and leaders in their communities, helping hands in their neighborhoods and leaders and supporters in their houses of worship. The concept of retirement is radically questioned. Adults 50+ are still living in ways which reflect the attitudes of the boomer generation's professional years, their activism and aspirations.

The boomers do not want to be defined by their age, not any more than we all want to be defined by our race, sex or income. More and more old adults come to accept the idea of shifting the paradigm, where growing older is not a disease and a burden, but a positive act off "living on ". We come to realize that aging does not equal decline and that we can embrace "positive aging".

While the shift to positive aging supports the associations between aging and growth, creating new opportunities and recognizing older adults as contributors, we do also have to acknowledge, with age come physical limitations. This paper will illuminate research contributions to environmental gerontology or "the places in which we age", ranging from the universal design paradigm to color preferences by age, color, texture and pattern preferences of Alzheimer patients and the concept of home for older adults.

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Impact of Urban Landscape on Patient Recovery - An Example of Post-Cesarean Section Women

Prior studies have shown that natural and physical environments have significant impacts on human health. However, few studies have been published examining impacts of natural and physical environments within healthcare facilities on patients' health outcomes, both mental and physiological. This research explores the effects of the built environment for childbirth, specifically in terms of landscape (window views) on women's recovery from post-Cesarean Section. The researcher examined the impact of window views on recovery such as patient-controlled analgesic (PCA) usage, length of stay, perceived pain, and general wellbeing of women who have undergone Cesarean Sections.

The researcher recruited a total of 296 women undergoing Cesarean Sections and use PCA for pain control after their Cesarean Sections from 3 tertiary hospitals in Taiwan for this study with assistance from 19 physicians and 38 registered nurses. The study took near 9 months to complete data collection and an additional 14 months for data cleaning and analysis. Data collection methods include self-administered questionnaire surveys, reviews of medical chart, and observations.

Independent raters were asked to rate the window view and their satisfaction with the view, then substituted their responses for those of participants as variables in the regression models. Three different combinations of two window view-related variables rated by independent raters ("window view satisfaction" and "percentage of natural content in window view") were adopted into a series of regression models. Results of these analyses also show that window view satisfaction significantly decreases analgesics usage, reduces perceived pain and improves some dimensions of wellbeing.

To maximize patient benefit and well-being, health care architects should design patient rooms to create maximum patient satisfaction with visual impacts, and expand patients' window views. these design considerations should contribute to future best practices for patient room design which may decrease the use of medication (analgesic) and therefore substantially reduce healthcare costs.

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Exploring the Traditional Form of Stockade Village Architecture in Pingyao County under the Background of Historical Regional Commerce Development

This paper discusses the distribution and form of the stockade village buildings in Pingyao in the context of historical regional transportation and commerce development. Stockade village building is a traditional Chinese architectural type, using rammed-loam outer walls for military defense, mostly found in the Yellow River Basin. Pingyao county, located in the middle of Shanxi province, is situated historically both in border defense area and highly active trade area, a typical region of stockade village buildings. The old Pingyao city was listed as World Heritage in 1997 and is one of the origins of Shanxi merchants. It is not only a complete prototype of county town in 18-19th century, but also the centre of the urban-rural stockade settlement network that shared the same culture origin. The stockade village spatial system in Pingyao has three levels of significance; firstly it is a military defensive stronghold set up by government, secondly the unique stockade spatial form that which has a consistent urban-rural structure, and thirdly the merchants' clan settlement culture named after the stockade villages. In that way, this paper further explores the characteristics of the particular building type and the connection between the physical spatial form and non-physical historical cultural factors.

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The Design Strategy and Methods of Rehabilitation of Historical City Blocks in China. A Case Study of Qingguo Lane Block in Changzhou

With the rapid urbanization in modern China, rehabilitation of old city blocks has been a key task many Chinese architects have to take. As a respond to the task, my urban design of Qingguo Lane Historical Block in Changzhou, China, is a try to achieve originality from local tradition. This project was awarded both the overall winner and the winner of 'Old and New Category' of 2015 AR & MIPIM Future Project Awards issued by Architectural Review in Great Britain. The Qingguo Lane, built during Ming Dynasty(ca. 1581),was a distributing center of fruits nationwide, later turned into a residential area of local literati and businessmen. It is located inside the city, near the Grand Canal. The urban design aims at reconstruction of the 4 plots within the Block on which workshops, multi-storey residential and office buildings have taken place of many old houses since the 1960s. Starting from the local traditional crafts and cultural life, the project investigates the possibility of a new life and business through reasonable arrangement of the corresponding functions in the Block. New buildings coexist with old buildings, both within the framework of space and can satisfy the new requirements. New and old buildings have connection in texture and mass. Thus the whole block will continue historical culture tradition and be revitalized.