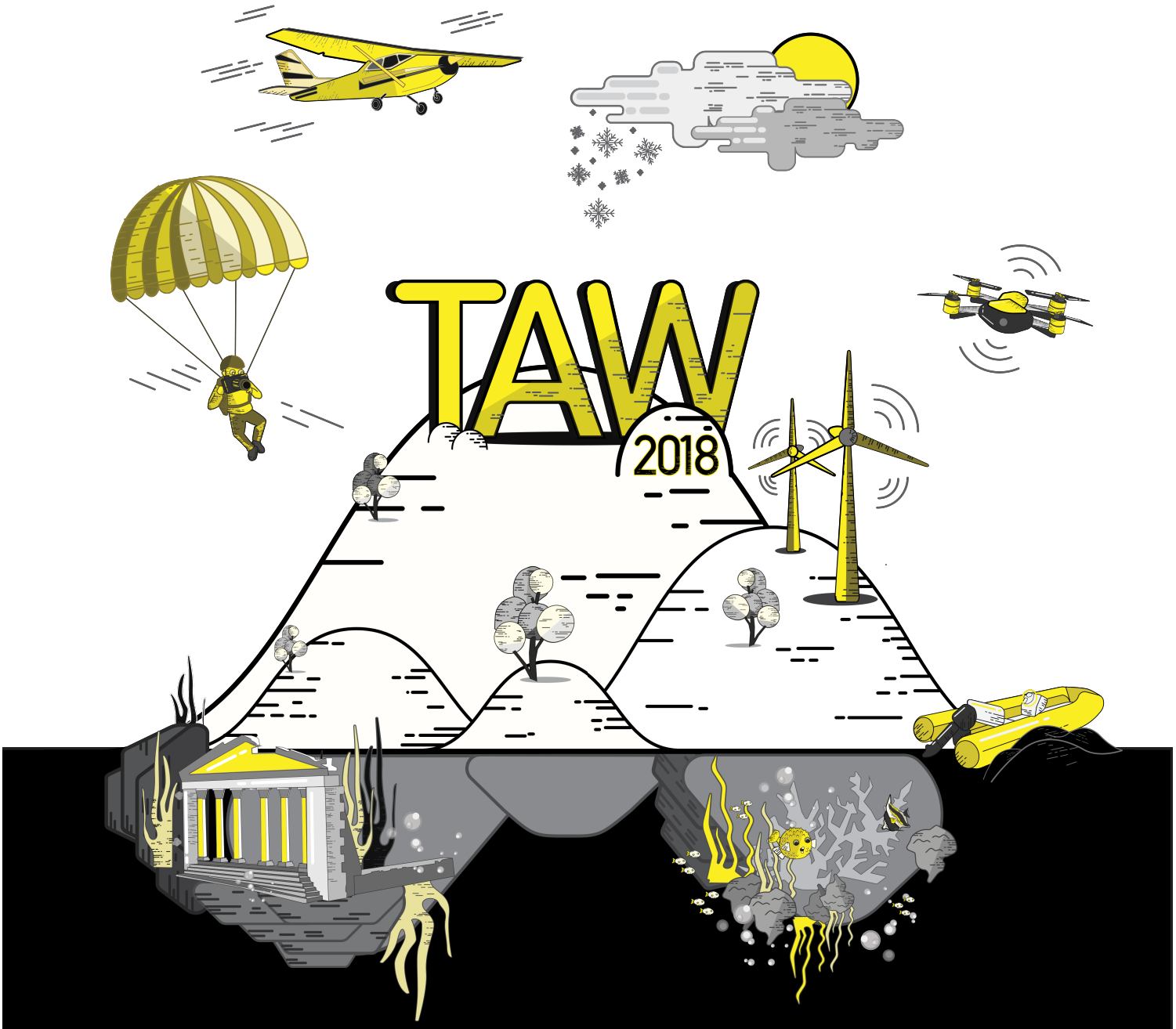
[CO]HABITATION TACTICS

Imagining future spaces in architecture, city and landscape

CONFERENCE PROCEEDINGS



TAW2018 International Scientific Conference

from 20th to 23rd September 2018 / POLIS University

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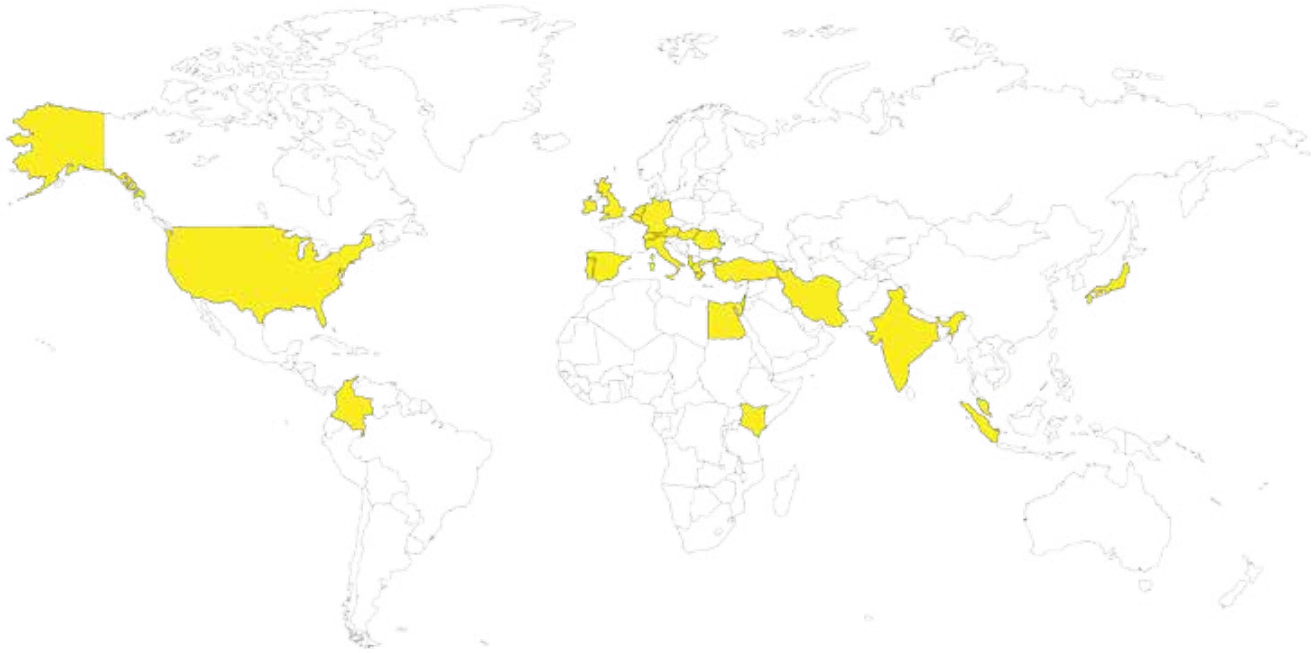
Dear participant of Tirana Architecture Week,

Thank you for joining us in TAW 2018. I stronlgy believe that all together we are making an historic step directly or indirectly related to Tirana's and Albanian's architecture, city and landscape. In addition, this is also a contribution for the region and wider on. At present time Europe is struggling with the instability of one of the worst recessions of its own history. Europeans are tired of the lack of flexibility and rigidity of overregulated societies where nothing happens. But here in Balkans and specifically in Albania, despite similar symptoms, things are still evolving, not because of delayed projections but because people here are very active, entrepreneurial spirit survivals, and the creativity of society is in a never-ending process. In Tirana, Albania or anywhere – as they say – in Western Balkans, we are still doing fine, so we might have to learn but also to offer something to the rest of the continent, despite our endless effort to join EU. This is a land of creativity where all architects and city experts feel just great: amazed, shocked, revolted, confused, enthusiastic, inspired, etc. This is due to the fact that there are layers of a real self-generative city.
Let's not forget that Tirana is an example of creativity. So, let's use such energy in a positive way and let's open a debate that might be useful for everyone. TAW is an academic event which gives you the opportunity to come and share your professional passion or nightmare. Enjoy time with us. There is not a clear recipe but there is always a solution out there to be discovered with passion and commitment. Join POLIS University, Co-PLAN Institute and our network of creative partners. I believe we all have something in common that can help to educate the new generation of architects who can re-appropriate the city and its needs, including those of real dignitary architecture. This is the point where the architect rediscovers its own place, space and meaning within society.

Enjoy TAW 2018! Enjoy U_POLIS and Tirana!

Prof PhD Besnik Aliaj
Rector of POLIS University



The papers submitted to the conference are coming from the following countries: Albania, Italy, Spain, Greece, Turkey, USA, Hungary, Belgium, Egypt, Iran, Lebanon, India, Colombia, Romania, Switzerland, Portugal, Austria, United Kingdom, Germany and Japan.

The turn of the 21st century has been marked by dramatic changes in the political, social and environmental panorama, which are deeply affecting the way we live today: terrorism, migration and global warming are certainly the most pressing issues, and they are putting at risk our very life on this planet. So far we have come to acknowledge that we must simply coexist with such problems and learn to live with their consequences in our everyday life. But while coexistence refers to the mere - and often imposed - action of living together without any productive interaction, co-habitation implies living together peacefully, while promoting some form of exchange. This is why we believe that in the future architecture, city, and landscape should approach such emergencies fostering interaction and productive exchanges between different disciplines and cultures.

Co-habitation can be achieved through tactics, which offer the possibility to generate new creative spaces within the fields of architecture, city and landscape. Tactics - a term, which evokes the ancient Greek expression art of arrangement - are actions undertaken by, or addressed towards, the actual consumers/users. Such actions are flexible, they can be continuously modified, reshaped and adapted to cope with external interferences.

The International Scientific Conference - organized in the framework of Tirana Architecture Week 2018 - aims at exploring contemporary research activities and design tactics that deal with the topic of co-habitation from different perspectives and within different fields of interest, directly or indirectly related to architecture, city, and landscape. Through the observation of different tactics adopted by researchers and professionals, the hope is to identify new research and design trajectories.

Within this broader framework, three contexts (architecture, city, and landscape) and eight topics related to the concept of co-habitation (climate change, ecosystem, energy transitions, memory, migration, mobility, technology, and tourism) have been identified. Contributes from the fields of sociology, architecture, urbanism, planning, leisure and cultural studies, geography, anthropology are welcome, as much as other sciences not mentioned above.

Laura Pedata, Enrico Porfido, Loris Rossi
TAW2018 Curators / Scientific Coordinators and Editors of TAW2018 ISC

Scientific Coordinators / TAW2018 Curatorial team

Laura Pedata is an Architect and researcher, her main interest lies in observation, analysis and representation of urban landscape conditions and environmental regeneration strategies. Her most recent design research initiatives are focused on residual landscapes in transitioning cities and on the reassessment of their role within the urban context, considering them as a potential ground for future urban development. Currently Laura is lecturer in Landscape Architecture and Sustainable Design at POLIS University, where she received her Doctoral degree in Architecture, University of Ferrara – POLIS University. She also works ad bioclimatic and landscape design consultant and takes part in EU funded research projects. Laura holds a Master in Architecture from "La Sapienza" University, Rome and a Masters of Architecture II degree (M.Arch.II) from UCLA. She was awarded a Fulbright Scholarship in 2007. Laura is a Licensed Architect since 2007 and was co-principal of the architecture office 'ungroup' until 2011. From 2009 to 2011 she was an Adjunct Professor in Landscape Architecture and Architecture at University of Rome "La Sapienza", and from 2012 to 2013 she was employed by SOM in San Francisco.

Enrico Porfido is a licensed architect graduated at Ferrara University. His research activity started in 2012, joining ClusterTheory - a multidisciplinary research group focused on theoretical approach in contemporary architecture practices. In 2013 he studied at Oslo School of Architecture (AHO), where he continued his research activity working on Santo Domingo grid. His working experience at landscape office PROAP in Lisbon, introduced him in the landscape design panorama. In 2014 he cofounded "pais(vi)agem", an independent research group that aims to develop an innovative touristic model, using it as tool for regenerating and protecting the landscape. Since 2015 he is a collaborator of the departmental research unit Sealine of Ferrara University. Now he is a researcher and lecturer at POLIS University, developing a research on tourism development in Balkan countries, with a specific focus on the Albanian coastal territory. Recently he has been invited as external expert in the Landscape Master of UPC (Polytechnic University of Catalonia) in Barcelona. He is also member of the research unit Institut Habitat Turisme i Territori, UPC Barcelona and University of Malaga.

Loris Rossi graduated in architecture in 2004 at "La Sapienza" University of Rome, Master degree in Architecture "Ludovico Quaroni". He was awarded a PhD scholarship in Architectural Composition and Theory at "La Sapienza" and he developed part of his PhD dissertation research at the Department of Architecture and Urban Planning of UCLA, in Los Angeles. He was an adjunct professor at the Five Year Master course in Architecture EU of "La Sapienza". From 2005–2011 he was co-founder of the ungroup Architecture office based in Rome. Since October 2011 he is a Full time Professor at the POLIS University in Tirana, from 2012 till 2013 he was Dean of faculty in Planning and Urban Design. In January 2015 he was Visiting Faculty Member at UCLA Department of Architecture & Urban Design, Los Angeles California. Currently he is Head of the Applied Research Department. His most recent research field is centered on observation, analysis and investigation in the context of Urban expressions, where the character of spontaneous processes is a manifestation of interrupted city images.

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PhD - UNESCO IHE Delft Institute for Water Education (NLD)

Opening lecture

Stephan Trüby is Professor for Architecture and Cultural Theory at University of Stuttgart. After studying architecture at the AA School in London, he initially worked as an architect in firms in Zurich, Berlin, and Munich, before going on to teach architecture theory from 2001 to 2007 at the University of Stuttgart, where he was a research assistant at IGMA, and from 2007 to 2009 at the Karlsruhe University of Arts and Design (HfG) as a visiting professor. From 2009 to 2014 he ran the English-language postgraduate program MAS Scenography / Spatial Design at the Zurich University of the Arts (ZHdK) and from 2012 to 2014 he was also a lecturer in architecture theory at Harvard University's Graduate School of Design. He was head of research and development for the 2014 Venice Architecture Biennale. His best-known publications are architektur_theorie.doc: Texte seit 1960 (edited with Gerd de Bruyn, Birkhäuser, 2003), 5 Codes: Architektur, Paranoia und Risiko in Zeiten des Terrors (edited by Igmade, Birkhäuser, 2006), Exit-Architecture: Design between War and Peace (Springer, 2008), The World of Madelon Vriesendorp (with Shumon Basar, AA Publications, 2008), Hertzianismus: Elektromagnetismus in Architektur, Design und Kunst (Fink, 2009), and Germania, Venezia: The German Entries to the Venice Architecture Biennale since 1991 (with Verena Hartbaum, Fink, 2016).

International Scientific Speakers

Sotir Dhamo is one of the founders of POLIS University, and currently is the Administrator of the Founding Board of this university. He is an architect and urban planner with a long experience in these fields. He participated in several research studies conducted by the Institute of Architecture and Urban Planning since the early '90s, and later he contributed in other public and non-governmental organizations such as the Ministry of Public Works, Co-Plan, etc. In addition, he has earned an Executive Master degree in public administration from the Syracuse University in US, as well as other post-graduate qualifications. He taught for some years in the Polytechnic University in Tirana as a guest professor, and currently he is teaching urban design and site planning analyses in POLIS University. Among other things, he is co-founder of Metro_POLIS, a studio acting in the field of Architecture; co-founder of Forum A+P, the scientific journal of POLIS University, the only Albanian professional periodic in the fields of architecture and urban planning, which is published only in Albanian version.

Camillo Boano is Professor of Urban Design and Critical Theory at The Bartlett Development Planning Unit (DPU). He is is Co-Director of the UCL Urban Laboratory co-Director of the Building and Urban Design in Development MSc at the DPU. Camillo's research has centred on the complex encounters between critical theory, radical philosophy and urban design processes, specifically engaging with informal urbanisations, urban collective actions, as well as crisis-generated urbanisms. He is working on a series of interconnected research projects in Latin America, South East Asia and the Middle East on urban infrastructures, habitability and city-wide upgrade. Prior to joining UCL, Camillo worked in development and architectural practice for a number of years, became a research fellow at the Refugee Studies Centre in Oxford, joined the World Habitat Research Unit in Switzerland, and the Norwegian University of Science and Technology where he worked on a number of research and consultancy projects concerned with environmental forced migration, humanitarian urbanism, temporary shelters and post-disaster housing reconstruction. He is author The Ethics of a Potential Urbanism: Critical Encounters Between Giorgio Agamben and Architecture (2017), and two edited books Urban Geopolitics. Rethinking Planning in Contested Cities (2018) with Jonathan Rokem and Neoliberalism and Urban Development in Latin America: The Case of Santiago (2018) with Francisco Vergara-Perucich.

Maria Goula is an Associate Professor at Cornell University in the Department of Landscape Architecture. For over 20 years she taught and worked professionally in Barcelona, Spain. She develops research on coastal tourism, especially in regard to the interpretation and reinvention of leisure patterns regarding coastal dynamics. Being herself a designer, she is mainly interested in translating interdisciplinary knowledge on the coast into design protocols. The spectrum of her research covers the history of Mediterranean coastal tourism and Landscape.

Thomas Dillinger studied Spatial Planning at Vienna University of Technology and completed in 2003 his PhD thesis in the field of Endogenous Regional Development. From 1993 till 2005 he was lecturer at the Institute for Urban Design and Planning. Since 2005, he is head of the Centre of Regional Planning and Development at the Faculty of Architecture and Spatial Planning, Vienna University of Technology. He was visiting Professor in Gdansk, Sofia, Novi Sad, Pristina and Tirana. He organized several joint study projects in the field of urban and regional planning. Actually he is the national coordinator of the CEEPUS Urban innovations networks. He is also involved in a Smart City Project in the context of a new build regional mobility hub in Vienna. Recently he was involved in designing the Regional Framework Plan for the area north of Vienna. In the past he also was involved in designing the Regional Masterplan for the surrounding of Bratislava. Since 2013 Vice dean for Academic Affairs in Spatial Planning at Vienna University of Technology. He is the National Representative of Austria in AESOP.

William Veerbeek is one of the founders of the Flood Resilience Group at Unesco IHE-Delft, Institute for Water Education in Delft, The Netherlands. He has a wide experience in area of urban climate adaptation in The Netherlands as well as internationally. His work was instrumental in the refinement of national flood impact assessment tools, which were tested in Dutch paradigm shifting projects like UFM-Dordrecht and Rotterdam-based projects in the Dutch Knowledge for Climate programme. He worked extensively in megacities like Beijing, Dhaka and Mumbai where his work focussed on the development of long term urban growth projections and subsequent changes in disaster risk. Strengthening IHE's mission in capacity development, William has been training many cities in climate adaption, especially in Southeast Asia. Currently he is developing a city-to-city learning network on green-blue infrastructure in the North Sea region.

Michelangelo Russo is full Professor of Urban Planning and is the head of the Laboratory of Urbanism and Urban Design at the Department of Architecture, University of Naples Federico II, where he is since 2013 the Coordinator of the PhD Program in Architecture. He is a member of several national and international research groups. Since 2014 he is President of the SIU, Italian Society of Urbanists, the Academic and Scientific Society of Italian professors of Urbanism. He is carrying out financed researches of national and international interest. His research activities, design oriented, deal with themes, knowledge and the phenomena of contemporary urban design in relation to the contemporary cities changes, urbanized areas, landscapes, and the complex interaction between environment, space, ecology.

Closing lecture

Jason Hilgefort is an urbanist|architect who studied at the University of British Columbia, University of Cincinnati, and is currently a PHD candidate at RMIT. His work experience includes working with Peter Calthorpe, Rahul Mehrotra, Maxwan A+U, and ZUS. He founded Land+Civilization Compositions, a Rotterdam|Hong Kong based design studio. He was a subcurator in the Shenzhen/Hong Kong Urbanism/Architecture Biennale. He is the Academic Director the Aformal Academy for urbanism|landscape|public art in Shenzhen. He was also a regular writer, contributing to assorted publications over the years including Volume, uncube, SITE and more. He recently founded the Institute for Autonomous Urbanism.

Notes

All papers presented at this conference have undergone a process of **double blind review** by the members of the international scientific committee. The quotation system adopted is the **Harvard Referecing System**.

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conference proceedings

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The Importance Of The Auditory System In Perceiving Architecture

Keti Hoxha
Architecture, POLIS University, Tirana, Albania

abstract

Perception is a multiplex process of selecting information from a concrete surrounding and translating it into a specific mental and physical experience. This activity is necessary in order to provide the adoption of the individual to the living environment. It is made possible through an important mechanism: the sensorial system. The selection of the input is provided by perceptual filters and developed by previous mental patterns and experiences. Through the output of this complex process we interact and use space.

Space perception is provided by the collaboration of all the senses, although throughout the history of philosophy and architecture the sensorial systems were organized in a hierarchy according to their importance. The visual system is considered as the most important filter to experience the architectural space. But, architecture not only can be seen but it can be heard. Buildings and spaces create specific sounds, which describe their characteristics. The research analyses the importance of the auditory system in experiencing architecture and how physical features indicate in the way we perceive architectural space.

keywords Persian Garden, Sustainability, Ecosystem Services, Water, Vegetation

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Introduction

> "Architecture is the art of reconciliation between ourselves and the world, and this mediation takes place through the senses." (Pallasmaa, 2012)

To perceive is a complex process of understanding and locating ourselves in the living environment. This is made possible by the collaboration of all of our senses and our body. According to Merleau Ponty, perception is not a sum of visual, tactile and auditable givens, but we perceive in total way with our whole being. The body is the locus of perception. Senses respond to the consciousness and inner thoughts of a person. Architectural work is not experienced as a series of isolated retinal pictures but in several components, such as material and spiritual essence. It offers a variety of geometrical forms and events. It incorporates and integrates physical and mental structures, giving our existential experience a meaning.

State of Art

Architecture deals with the design and the organization of the physical properties of a space. It provides not only function, but it also appeals our aesthetic sensibilities. Along with the combining of different elements in spaces, respective messages are given through elements we see, hear and touch. As a result, a symbolic vocabulary between the architects and a society is attained. To provide this silent communication, most architects consider the visual aspect of a space rather than the acoustic ones, considering this as less important for a human being and more crucial for the animal world. During the Classical Greek period, it was argued that clear knowledge was obtained by the sense of vision; and light was considered as the metaphor for truth. Nowadays, various artists and architects have diverted their attention to the auditory experiences; such as Juhani Pallasmaa, who rejected the theories about the superiority of vision and considered the important impact of all the senses in experiencing architecture, especially audition. Based on this new way of approaching architecture, the concept of soundscape

in architecture was formulated by the Canadian composer R. Murray Schafer. This concept suggests how the ear can be an instrument for designing a building and experiencing it.

Objective and Methodology

The research aims to present the connection of architecture and sound, emphasizing the importance of hearing in perceiving a space. For understanding this relationship, it is necessary to take in consideration architectural examples that emphasize the presence of various sounds and its effects on the users' experience. The research, also, aims to bring out conclusions from analyzing existing theoretical frameworks that were conceived by giving audition a significant role to humankind.

1. Seeing vs. Hearing

Throughout history, the sensorial system has been organized in a hierarchy, according to their importance in experiencing space. From the beginning of existence, the human being communicated through vocalization and hearing, creating the oral culture. But the importance of hearing was gradually replaced by sight and the oral culture was replaced with the visual culture, the sonorous space with the visual space. This transformation has had an important impact on the consciousness of human being, memory and experiences.
In the ancient and western philosophy sight has been considered as one of the most important senses for understanding the real dimension and distance of an object. "Eyes are the metaphor for the truth. Is the only sense in the sensory system that can see itself[1]." In classical Greek philosophy, it was considered that knowledge was obtained by the sense of vision. According to Aristotle, sight was considered as one of the most noble of the senses because it approximates the intellect most closely by virtue of the relative immateriality of its knowing. (Pallasmaa, 2005). But how well can we rely on our sight?

The science of magic and illusion hold the key to understanding of how our senses work, especially the sense of sight. Visual illusions trick the brain giving interesting insights in visual cognition. Magicians, for example, are the best manipulator of our eyes. A simple magical trick that consists in jogging a ball and making it disapear, while actually it is hid by the magician in the back of his hand. The brain is manipulated from this simple trick because there is about a tenth of a second delay between information being received by our eyes and processed by the brain. The brain has to predict what is going to happen when watching an illusion. While the ball was thrown in the air, the brain expected the ball to appear following the expectation from the eye movement. Psychologists define these expectations are based on our life experiences. The brain intended to predict.

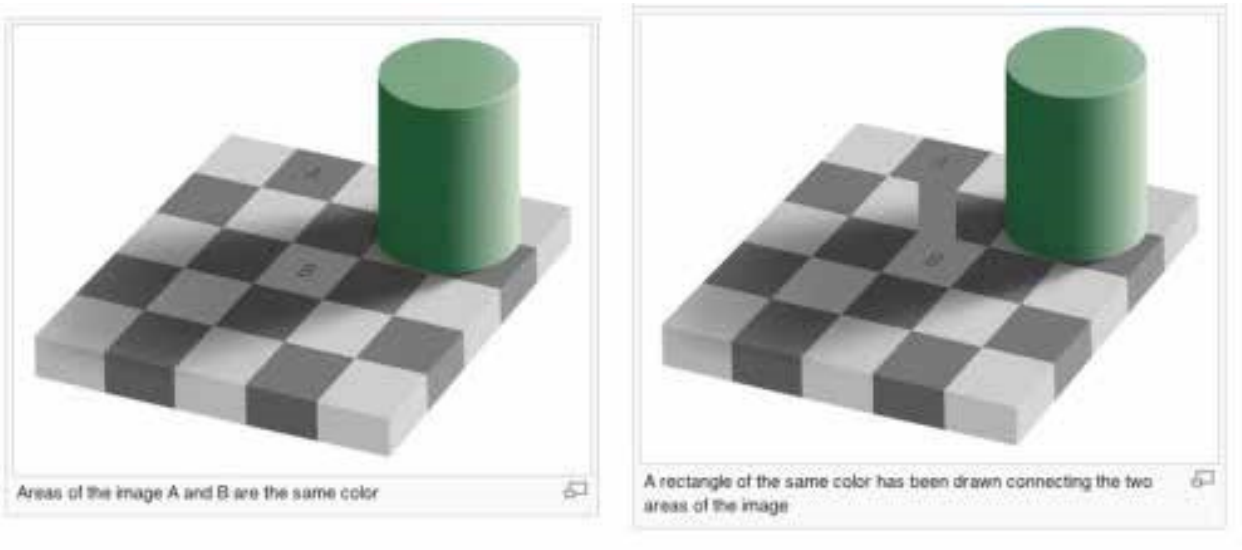

Figure 1: Checker Shadow Illusion – Edward H.Adelson

Another failure from eye perception is the experiment of the checkboard with the shading cone. (Figure1). The checkboard is composed of squares of two different shades. It is clear that one square (suqare B) is lighter than the other one (square A). In fact if we place this two squares together and compare them it is understood that they have the same color and shade. In this case we are dealing with the missunderstanding of our perception based on the context. The illusion occurs when the object's properties appear to differ in different contexts. We perceive

the object as changed in the different situations. This is not the fault of vision as a sense because we perceive the specific object through a cognitive process. We base our visual knowledge in our previous experiences and as a result attention is lost, leading to not assertive results, such as those from the experiment mentioned above. With a simple situation, we may start to doubt the truth that vision brings to our knowledge.

During Reinissance, the senses were still organised in a hirearchy depending on their importance for perceving self and the world. On the top of hirearchy was vision and the last touch. Nowadays, this hierarchal organization has lost its strength, although vision is considered as the main generator of architectural design.
Sense organs create a connection between the external and internal world. Visually a person can feel and understand better a space. Although vision is quite important to perceive the physical features of it, we get an experience as a collaboration of all inputs from all of our senses. The same object is perceived differently when all senses are present, and other perceiving experience is obtained when there is a sensorial deficiency. The perfect example to understand this is watching a movie with the sound on and later with no sound. The experience is not the same in two cases. This is because music or sound makes us aware and assertive of the situation, as a result, we gain the total information of the surrounding. This is also why soundless movies have to exaggerate the movements and facial expressions, in order to give as much information to the perceiver, although this maneuver cannot replace the information obtained by audition. Like a soundtrack in a movie, sound in architecture increases the tension and intensity of the experience of perception. As a result, this is transformed in specific emotional and psychological moods.
Hearing is the sense of detecting sound. In humans, hearing is performed primarily by the auditory system: Sound is detected by the ear and transduced into nerve impulses that are perceived by the brain. Audition is important for equilibrating the relations of giving and receiving (communication). The act of listening represents the subjective perception of a sound and an interpretation of it. Of all the senses, hearing is the most accurate one. The ear is the organ that allows greater mental flexibility through concentration, but a person can easily be distracted from a noise. Hearing is omni-directional, not focused like vision. With sight we get the first impression of the object, and this is why the tool of visualization is the primary mode of design thinking practice. “We are not aware of the significance of hearing in spatial experience, although sound often provides the temporal continuum in which visual impressions are embeddeds.” (Juhani Pallasmaa, 2012).

2. Sound as an architectural tool

We are not fully aware of the importance of the auditory system in perceiving space. It is a mechanical process we do every day since we always associate it with vision and as a result never concentrate in the effects of sounds in our everyday life. Each space has a physical feature and each of these are indicated in the sound it makes. Void has its own sound that is easily recognizable. The perceiver becomes fully aware when in space are present different shapes and forms that reverberate differently.

Auditory spatial perception is the mind’s ability to perceive space through sound. Barry Blesser, a former professor at MIT and the inventor of the digital reverberation system, argues that auditory spatial awareness facilitates the mind to perceive space through complex cognitive processes that enables us to visualize space while allowing the mind to navigate and make us conscious of being in a space. This type of perception influences our psychological mood, behavior and also our level of social interaction.

The character of a sound in space defines the nature or function of it. This sound produces a mental image composed of several data such as volume, materiality, program, location and the character of a space. Spaces exist through the use of echoes and reverberations, through the various speeds the sound has. A noise made in distance gives an echo, which is reflected to the wall, the ceiling and the floor. This information given to the receptors transforms in a perceptual experience, by which the person becomes aware not only of the presence and distance of the object producing sound, but also of the existence of the spatial elements that surround his space. As a consequence, sound indicates in our emotional moods. Typical spaces that effect our psychological state is a city with empty streets, which gives a sense of insecurity, or a sound polluted city which give a sense of irritation. These emotional moods indicate in the attitude and interaction of people.

The sound is considered as soft architecture, because of its possibility of changing our perception of the surrounding and of its important role of defining social structures (private and public boundaries) of a society. Considering these attributions of the sense of hearing, it indicates new ways of deigning a new architecture that embraces all the senses, leading to a new experience of perceiving our surrounding and being attuned with it. (Schafer, 1993). Aural architecture is a way of communication between space and the users. By this can be understood if a space has a private or public character. Sound defines the function of a building. The stature and emptiness of a cathedral gives a symbolic meaning to the mental image of the user, but meanwhile these architectural solutions contribute in making sound the most important element of the experience inside the building. There is a fundamental link

between religious architecture and the sacred dimension of harmonic sound. The best example of this building typology is the Abbey of Le Mont Saint Mischel in France. The building is considered to create an harmonic and mystic sound. Architects designed the building using their ears, choosing the dimension of spaces in function of sound. The vault rises in more than 24 meters. This is a remarkable height, able to sublimate the voices inside the building. When 17 meters of the vault is exceeded, the echo phenomenon happens. The human ear is capable to detect variation of sounds. This type of sound produced creates a physical and psychological sensation to the visitor.

Figure 2: Le Mont Saint Mischel in France

One of the most exciting auditory experiences in architecture is tranquillity. This can be used as a tool for creating atmospheres and emotional moods. Even silence, absence of sound, can be an important tool for giving an experience in a building. A good example for this is the Jewish museum by Daniel Libeskind. Specific rooms which are called voids are composed of a floor filled with copper plates in a facial shape, intended to be stepped on. This process creates an echo sound followed with the movement of the person, in contrast to the deaf silence of the empty space. In this space several senses are put in work, but sound is the one that gives the real experience, the emotional and psychological mood. Without sound perception would not be the same.

Figure 3: Daniel Libeskind – Jewish Mudeum

In the writings of Vitruvius, materiality and form were considered as an instrument for formulating spatial acoustics. Materiality plays a dominant role in the way sound is reflected, refracted and absorbed. In buildings where playing of sound is the primary function, design is a result of the calculated acoustic spaces, such as the Boston Symphony Hall designed by acoustician Wallace Sabine in 1890. The position of the materials is calculated in such way to emerge spatial acoustics and to attain the control of it. The effects of this calculation are quite evident in the design of an anechoic chamber where the sound absorbent material creates a complete silence. An anechoic chamber is a room isolated from sound waves, designed to absorb all sound reflections. In this building materiality was used to acoustically distinguish between intimate quiet spaces and loud spaces with the use of acoustic walls and barriers. As a result, sound becomes the element that defines the use of space.

Figure 4: Anechoic Chamber

Bernhard Leitner, who is considered to be the pioneer of sound and space art, speaks of "corporeal" hearing, whereby acoustic perception not only takes place by way of the ears, but through the entire body, and each part of the body can hear differently. Sound from his perspective is measurable, it draws lines, builds walls, unites our perceptions and movements. He proposes a space that defines the importance of hearing and seeing, with the installation "Cylindre Sonore" in Parc de la Villette, France. The object is designed in the shape of a cylinder and it is positioned in a garden that offers a variety of landscape. A cylindrical space, with no ceiling provides all the physical properties to allow a maximum concentration of listening to the space. The inner diameter of the double cylinder is 10 m, with a height of 5 m. Behind the eight perforated concrete elements three loudspeakers have been mounted vertically like a column. The circular space between the two curved walls is a functional space for the maintenance of the loudspeakers. It provides access to the control room which is positioned on the underground level. The ring is a resonance chamber, which consolidates the sound by means of weight and tension of the curved surfaces. The hushing sound distracts from the sounds of the urban environment, neutralizing the space. This is the perfect example when sound is the architect of a space that makes us conscious of our being and existence, through the direct contact of us with sound.

Figure 5: Cylindre Sonore

Conclusion

The research presents the importance of the role of our audition in experiencing architecture. There is a silent communication between a building or space and the perceiver. This communication happens through perception. Perception is obtained through the participation of all the senses. As a result, the visual experience is vague and the dialogue is incomplete without the auditory experience. Concentrating on the visual information makes the architect ignore the capacity of sound in creating various experiences for the perceiver in a space. Sound is an architect. It defines the functional use of a building, by establishing the public or private character of its spaces. This determination of boundaries, settle the social relations and interactions between the users. All spaces produce specific sounds that influence the emotional and psychological moods of the perceivers. By this mean, architecture becomes more memorable and gains more significance, since it makes the space navigator more conscious of his own existence.

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