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PRESENTER ABSTRACTS
ACADEMY OF NEUROSCIENCE FOR ARCHITECTURE

Synapsis at a “Capitalist Square”

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1. ABSTRACT

Objectives: The buildings that stand out in our contemporary great cities have long ceased to be those of political and power symbol. Our urban landscape is now crowded and mostly dominated by office buildings, apartment buildings and headquarters of large companies.

Through the activity of consumerism - deeply installed on such models of Capitalist Cities spreaded all over the world (Manhattanism spatial models) - we examine interactions between people and buildings (Zakkyo Buildings rhythmanalysis - Tokyo). Furthermore, the study investigates how the brain shapes its activations in response to its environment.

Methods: The following research follows a multidisciplinary approach through the domains of Architecture, Psychiatry and Neuroscience.

Results: All behaviour is learnt from our environment. Each and every day (although we may not be aware), we receive subconscious programming from our cities landscape. From an architectural point of view, were identified urban space issues that are dictating a specific control on social mind and feeding the development of psychological diseases, by instance, stress and anxiety. At the level of human response to places, becomes clear that architectural experience matters. The attributes of space, from shapes to colors, thermal conditions, light (both natural and artificial) and sound are perceived by our sensory systems, processed through the thalamus and midbrain, and sent to the cortex to be recognized in a conscious way. The connections between neurons can be increased or decreased based on the experiences of individuals. Even the total number of synapses may change in certain areas of the brain due to various experiences, as well as interaction with the physical environment.

Conclusion: It was well established that crowding, sudden loud noise, bright lights, multiple choices and lack of land-marks are all potent triggers of the physiological stress response. At the scope, we claim the importance of an urban environment that is readily navigated: a more consciously and balanced organization of our cities can create feelings of comfort and a reduction in anxiety. The research concludes in that responsive architecture can positively contribute to the creation of a more human environment helping people to improve their psychological health and preventing them from irrational use of drugs.

2. AUTHOR BIOS

Anabela Martins was born in Oporto city (Portugal) in the year 1982. Holding intuition and observation as attributes that can easily define her personality, she became an architect focused on human and society needs (both physical and spiritual).

In the year 2001 she started to attend her architecture course. By January 2010, she concluded it with an integrated master degree developed in Tokyo and presented at Oporto Lusíada University. While an Erasmus student at Aristotles University (Thessaloniki-Greece, 2007/2008), Martins built the foundations of her researching project with professor Janis Chatzigogas being the first guider challenging view points at the scope of contemporary architecture and its evolution (within different places and political systems).

Winner of a scholarship assigned by the Portuguese Cultural Ministry, she arrives at one of the largest world's metropolises, (Tokyo), in the beginning of 2009 with two different purposes: to release her first internship as an architect and to develop her research project 'in situ'. At the Architecture and Phenomenology conference held in Kyoto during June 26-29, she first met Dr Julian Worrall, Assistant Professor of Architecture and Urban Studies Institute for Advanced Study, (Waseda University, Tokyo-Japan). Between October 2009 and January 2010 they often met in order to brew her particular curiosity and viewpoints on Tokyo's urban space. Back in her hometown, she presented her thesis work entitled Shift of Scales and Privatization of the Public Space: Tokyo 2010 - moment in which she concluded her master degree.

Committed to its professional role as an architect on society's service, since 2010 she has been working as an independent researcher. Her intuition is now responsible for her architectural study developed throughout neuroscience and psychiatry fields. Currently, she lives in Thessaloniki (Greece) and she is a co-foundress of Synolonepitopou Project - a social project that,

by connecting different fields of knowledge, is searching the creation of a new (sustainable) system.

Sofia Gomes was born in Guimarães - Portugal, in 1983. She joined the Medicine Faculty at Coimbra University in the year 2003 and she concluded her graduation in 2009 with a master degree entitled "Neurodevelopmental disability by anomaly of proximal region of the long arm of chromosome 15 (q11-q13) - genotype - phenotype relationship". Gomes is currently working at Magalhães Lemos Hospital (Porto-Portugal) as psychiatrist Dr (Psychiatry trainee). Along her career she has presented papers at national and international congresses (20th and 21th European Congress of Psychiatry).