Jonas Rehn-Groenendijk

Interview With Evangelia Chrysikou

Dr Evangelia Chrysikou, associate professor at the Bartlett UCL, London. Director, MSc Healthcare Facilities. Medical architect, RIBA. Serves in policy roles in relation to healthcare built environments. Member of the National Accessibility Authority of Greece, lead of Access and Accessibility to healthcare working group and former coordinator EIP on AHA, European Union. Consultant for the Greek Ministry of Health and the Centre of European Constitutional Law, Japan's Ministry of Foreign Affairs, the UK Government for the reconstruction of Peru, Dyson, etc. ULI Life Sciences and Healthcare Council Leadership Committee.

Jonas Rehn-Groenendijk: Evangelia, your work primarily focuses on therapeutic built environments such as psychiatric institutions. In this regard, what does the term "needs" mean to you in the context of interior design?

Evangelia Chrysikou: As an academic in healthcare built environments, I have concentrated on the concept of needs in relation to vulnerability. Initially, my work focused on psychiatric facilities for individuals with mental illness[1], but it later expanded to encompass various vulnerable populations, including people across the lifespan and those with multiple morbidities. I have also actively engaged in informing and shaping policy in relation to health and healthcare.

One of my key insights is that pathological conditions significantly impact an individual's needs. Both physiological and perceptual changes occur when a person is unwell compared to when they are healthy. Therefore, it's crucial to define how design can support individuals by addressing the specific challenges posed by their health conditions.

In addition to this, I believe it's important to consider the mechanisms that support health and the associated needs. Designers have previously explored concepts like generative health and, more recently, salutogenesis. Pathogenesis and salutogenesis are often seen as opposing mindsets. However, I argue that these concepts can be viewed as a continuum. I conceptualise this continuum as "therapeutic architecture," which can play a vital role in designing and managing health and wellness more broadly.

J. R-G.: Based on this understanding of salutogenesis and pathogenesis and the assumption that needs and perception change due to sickness: What methods of need orientation do you use in your practice or research?

E.C.: Defining needs requires multiple perspectives and layers. Context is important and engagement requires iterations, seeking input, and actively involving end users. I prioritise understanding the condition at hand, primarily through literature reviews and multidisciplinary expertise. The model of pathogenesis offers insights into the physiological and perceptual changes associated with health conditions. Yet, pathogenesis is often overlooked in the built environment discourse, as it aligns closely with the medical model. Designers, and occasionally academics too, in the fields of design and health don't always associate the intimate connection of theories of pathogenesis with evidence-based medicine, which underpins evidence-based design. Recognising these often-misunderstood connections is crucial for advancing research and practice in the built environment. Understanding affordances related to health systems and services is equally vital. Additionally, we must consider the mechanisms that promote health, including salutogenesis and generative space paradigms. These three dimensions, i.e., understanding pathogenesis, healthcare systems, and salutogenesis, enable us to appreciate the biopsychosocial context, fostering an eco-biopsychosocial approach. This contextual understanding allows us to engage with real individuals and empower the most vulnerable among us to be actively involved in the decision-making about their health and healthcare built environment. It guides us in determining how best to approach and interact with them, creating an environment and process that encourages meaningful feedback from a place of well-being.

J. R-G.: What challenges are associated with need orientation's application of this eco-biopsychosocial approach in healthcare settings?

E.C: Healthcare built environment needs exist within a broader ecosystem of care. From a systems theory perspective, it's crucial to identify weak links, as these are likely to become breaking points. We must recognise all components of the system and engage everyone involved. Understanding who the end users are is essential, as there are often multiple individuals or groups. Currently, we are working on human-robot cohabitation for people with frailty, considering "needy robots" as potential end users[2]. When we fail to acknowledge

their built environment-related needs, we risk weak links. Architecturally, robots' needs may conflict with the frail individual's needs. If both sets of needs are not adequately addressed, it could hinder the robot's adoption or impact the frail person, their caregivers, the organisations supporting the system, and the broader health and social care services. The key message here is that in Industry 4.0 and beyond, where AI may increasingly function as an independent actor, overlooking these technologies as potential agents in the ecosystem could compromise our understanding of the system's dynamics. Identifying these agents and potential conflicts is just one of many challenges we face, alongside resource constraints, sustainability issues, infrastructure limitations, and cultural or other factors that must also be considered.

J. R-G.: How can one resolve the potential conflicts between one's own aesthetic preferences and the (aesthetic) needs of the future users that have been identified/assessed?

E.C.: Having been exposed to various architectural schools and disciplines, I've come to realise that not all institutions prioritise aesthetics equally. While some schools emphasise aesthetics as a primary driver, others adopt a more multifaceted approach. Personally, I have always been drawn to schools of thought that embrace multidisciplinary perspectives, including engineering, environmental psychology, and social, philosophical, or anthropological theories. Understanding space and place is inherently more complex, offering multiple layers of insight beyond aesthetics. Consequently, the dilemma surrounding aesthetics has become one of many intriguing layers in my work. In contrast, user needs and perspectives, particularly those related to vulnerability, hold significant weight. As I engage more deeply in policy, where the tensions between vulnerability and power dynamics are increasingly evident, I have become a strong advocate for end user involvement. Over time, my perspective has shifted from a focus on aesthetic preferences – which felt more pronounced when I graduated from architectural school – to a commitment to promoting equity. In a recent research project on The Social Invisibility of Mental Health Facilities[3], we found for instance that inequalities exist in healthcare architecture itself among various specialities. While general hospitals usually are equipped with impressive facades located in central and well-connected areas, we found mental healthcare facilities being almost hidden behind modest facades located in remote areas. Vulnerability generated inequality that needed to be reconsidered. This evolution of my perspective has been shaped by my personal growth and awareness of my own limitations, by my experiences as a caregiver for loved ones, and by my exposure to diverse disciplines through academic collaborations. I believe that this commitment to greater equity will continue to develop

as I mature in my career, and I aim to create more effective tools for communicating this vision to younger professionals and academics.

J. R-G.: How do you design an interior architecture (e.g., a public interior) for a user group that is not yet known?

E.C.: Perhaps it's essential for us to reflect, study, and explore the notion of the unknown. While something may initially seem completely unfamiliar, there is often some context that can be uncovered. We need to ask questions and invest time and effort into understanding before we dive in – this involves actively listening and continuously asking more questions. By thoroughly examining the brief and engaging in this dialogue, the user group will gradually become less unknown. Utilising a variety of epistemological tools and theories can help us uncover deeper insights. When I first met my PhD supervisors, the founders of space syntax, I was captivated by what could be revealed about social dynamics through space alone. Space syntax, as a theoretical framework rather than just a computational tool, offers remarkable versatility in exploring the social fabric of existing places, including archaeological sites. Researchers have used it in the past not only to discover who the user was, just from archaeological excavation ruins. but also what their activities and patterns within the space were, by decoding spatial hierarchies. Having said that, space syntax is just one of many theories that can enhance our understanding of space, place, and the relationships between people and societies. Collaborating with experts across various disciplines and studying our society, our bodies, perceptions, geographical contexts, and the tangible and intangible values of built environments can play a significant role in revealing the underlying context.

1 Chrysikou, E. (2014). Architecture for psychiatric environments and therapeutic spaces. IOS Press.

2 Chrysikou, E., Biddulph, J., Loizides, L., Savvopoulou, E., Rehn-Groenendijk, J., Lloyd Jones, N., Dennis-Jones, A., Nandi, A., Tziraki, C. (2024). Creating Resilient Smart Homes with a Heart: Sustainable technologically advanced housing across the lifespan and frailty through inclusive design for people and their robots. Sustainability 16(14): 5837.

3 Comparison publication: Chrysikou, E., Kostopoulou, E., Savvopoulou, E., Fatah gen. Schieck, A. (2017). Medical Architecture on the Social Valorisation of Psychiatric Patients: Employing transdisciplinary approaches between architecture, physical and mental well-being disciplines. Proceedings of the AAE 2017 Conference, Architecture Connects, 6–9 September 2017. Oxford Brookes University, UK.