

'Start making sense of healthcare environments: medical architecture vs generic architectural methodologies for psychiatric settings'



Dr Evangelia Chryssikou

Lecturer, Program Leader MSc Healthcare Facilities, The Bartlett Real Estate Institute, University College London



Background

Understanding the therapeutic environments for mental health adds a great understanding of mental illnesses. Key to this understanding is the psychosocial impact of the built environment through formulating interdisciplinary relations between architecture and health sciences.

As mental illness has low diagnostic and low medical treatment accuracy factor, environment is central for the quality of care and treatment.



Aim & objectives

The inadequacy of new behavioural health buildings to perform according to expectations, generated the question on the relation of their building layout to psychosocial performance.

The research generated the following objectives:

- (i) explore the mechanisms with which the built environment influences the personal and social milieu of psychiatric space, and
- (ii) identify the environmental requirements of mentally ill people according to their needs, the therapeutic regime and the principles of de-institutionalisation.

Methodology

Methodology juxtaposes a healthcare planning, design and evaluation methodology to an architectural morphology theory based on social theory background.

The locus for the fieldwork comprised two behavioral health wards of different public health authorities. Each was initially evaluated using an innovative method, the SCP Model. The methodology aimed to identify the relation between policy, care regime and patient-focused environment in terms of institutionalisation. Data collection involved plans, visits and detailed staff and patient interviews.

Yet the methodology presented limitations in identifying the social dynamics generated by architecture. To address that, Space Syntax analysis of plans was added to identify the social logic of layouts and its possible relation to people's responses.

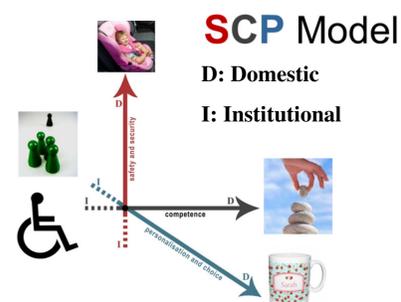


Figure 1: The SCP model

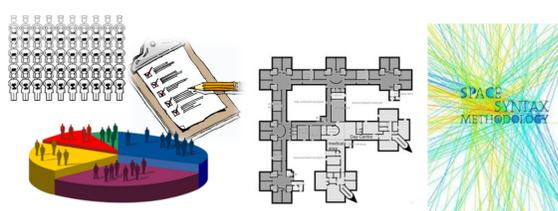


Figure 2: Qualitative and quantitative analysis

Findings & Conclusions

The juxtaposition of medical architecture, an area specialising in environments for patients, and the more generic syntactic methodology highlighted common factors being perceived differently between these two disciplines.

The SCP model (deriving from Medical Architecture) was sensitive to the experience of people, their interaction and their health & wellbeing. These were influenced both by the lack/presence of humane and compassionate qualities in design and by the layout.

Yet, spatial analysis (generic Architecture Methodology) by highlighting the most integrated areas, uncovered unexpected contradictions that a qualitative architectural analysis might not have picked. Counter to normative examples, though, these areas fostered social unrest and violence as opposed to what space syntax was suggesting (inverse result).



Figure 3: Floorplans of the Wards A and B, color-coded according to functions



Figure 5: Ward A-view outside nursing station



Figure 6: Ward B-the nursing station

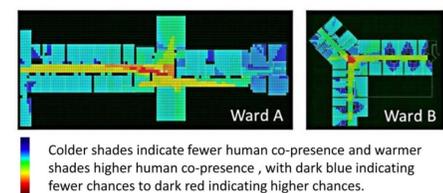


Figure 4: Integration of Wards A/B using Space Syntax Analysis. From the plans it occurs that the most integrated space with the highest chance of co-presence is the area outside the nursing station (red). Yet in reality this co-presence is characterised by antisocial behaviour (counter to space syntax)

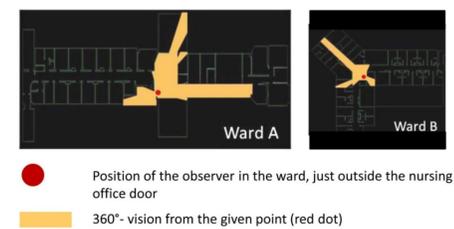


Figure 7: Visibility from the nursing station at Wards A/B

It identified clear challenges for the generic methodology. Space Syntax produced inverse results when it came to mental health premises, raising questions for its applicability in healthcare settings. This could be explained by the fact that space syntax is a generic methodology, applying to normative people, and not designed taking into account the changes in perception and physiology that come as a result of ill health. These inverse results between space syntax in mental health vs generic settings could be interpreted by Goffman's theory on total institutions and listing community mental health wards as such. Overall, the project raised the question of the appropriateness of generic architectural methodologies for healthcare. It highlighted their lack of sensitivity in perceiving limitations to spatial movement and human co-presence resulting from limitations caused by patients' health status.

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