

Landscape Design-Neurosciences: application of homeodynamic landscape design in CAISM-UNICAMP and its contributions to the biological homeostasis of nursing professionals

Keywords

Landscape Design, Architecture-Neurosciences, Homeodynamic Environments and Products, Pandemic and Post-pandemic Scenarios, CAISM-UNICAMP.

This research is based on the cooperation between Architecture and Cognitive and Behavioral Neurosciences fields, especially supported by the concept of Homeodynamic Environments and Products (Zuanon et al., 2020). It analyzes the action of landscape design on the human being, aimed to the biological homeostasis. Cognitive and Behavioral Neurosciences offer concrete evidence that the character and quality of environments exert a measurable influence on human brains (Mallgrave, 2010), since Cognitive Neuroscience addresses the individual's complex mental capacities, such as self-awareness and memory, and Behavioral Neuroscience investigates the neural structures that produce behaviors and other psychological phenomena such as emotions (Lent, 2008). Thus, the built space - as a mediator of the relationship between body and environment - can change the physiological disposition of the human body and, therefore, influence emotional states. Such changes can be verified in hospital environments, where the space must be oriented to support recovery, treatment, or rehabilitation and offer healthy conditions to ensure the well-being and maintenance of the internal balance of the human body. Humanization policies for hospital projects focus on the individual's global needs, which implies a transdisciplinary approach and has guidelines aimed at well-being and the healthy involvement between body and environment (Leitner & Pina, 2020). Studies related to the humanization of architecture present consistent contributions regarding design elements and strategies. In this scenario, techniques that value natural elements

such as sunlight and vegetation stand out. This reinforces the beneficial and intrinsic relationship between humans and nature, as proposed by the "Biophilia" theory (Wilson, 1984). This inherent connection offers an effective platform for the internal regulation of the human body, especially when it is unbalanced. From this perspective, this research is focused on the contributions of the landscape project to the homeodynamic balance of the body of nursing professionals at the Center for Integral Care to Women [CAISM-UNICAMP]. It is based on the intensity of the daily loads - physical and mental - they face during long periods of exposure in hospital environments, with the additional impacts of the COVID-19 pandemic. The literature review points out studies that touch upon the interests of this research, however, most of them emerge from the field of Health knowledge only. In addition, there is a lack of research sources in the Portuguese language on the subject of this study. Besides, the relevance of this research also resides in its contributions to landscape design recommendations, which integrate specific parameters of the climate, specimens, and Brazilian culture, as the scope available in the literature does not meet the mentioned features. The methodological approach of this investigation includes the literature review; field research; the application of an experimental protocol; the analysis, interpretation, and systematization of collected data; as well as the elaboration of design guidelines for landscaping aimed at the biological homeostasis of nursing professionals in pandemic and post-pandemic scenarios.