عنوان مقاله:

Mental perception and creation of architecture:Aneurological approach to perceiving theenvironment

محل انتشار:

هفتمین کنفرانس بین المللی پژوهش در علوم و مهندسی و چهارمین کنگره بین المللی عمران، معماری و شهرسازی آسیا (سال: 1401)

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خلاصه مقاله:

Creating an architectural work is a complex process in the designer's mind. Although generalknowledge is available about factors affecting this process, there are still many ambiguitiessince the mental process of men, especially architects, is still an unknown phenomenon. It isof paramount importance to understand how the brain perceives the external world andresponds to the surrounding world to fill this gap. Given the remarkable advances in biologyand neurology, reviewing the history of philosophical thoughts and theories of art and theresearch studies on the neurological activity of brain cells can open new horizons in thisinterdisciplinary field. This study used the most recent research on neuroscience and itsrelationship with human perceptions and created a work of art to delve into the relationshipbetween architecture with the mental process and architects' perception. It is well known thatthe brain and nerve cells are directly involved in cognition, perception, memory,consciousness, creativity, and the creation of artworks. This process would contribute toteaching architecture and creating better architecture. In this study, the research questionswere: How is the brain function in perceiving the environment and creating an architecturalwork formed? With which kind of data does creating an architectural work of art according tothe mental processes go towards creation and creativity? This research used the library dataand used articles, books, and interviews by adopting a qualitative research method to open anew direction in architecture and cognitive neuroscience. Monitoring different organs of thebrain and their relationship with the mental processes of architecture is achieved viaenvironmental perceptions, and the external and internal human experiences are also achievedvia human senses such as seeing and touching and their effect on memory and the increasedcellular communication of brain neurons. They would ultimately result in the arousal ofcreativity by providing training and raising external awareness in architects' and artists'minds. The difference between different styles of art and architecture is the result of theperception and formation of separate neural connections in everyone's mind. This article is afirst step in investigating the relationship between cognitive neuroscience and architectureand opens many horizons in the future to understand the relationship between architectureand cognitive science, neuroscience, and even artificial .intelligence

کلمات کلیدی:

Mental process, architect's brain, perception, architectural design