

## Investigation of the Space in Response to the Conditions Caused by the Pandemics and Presenting Five-Scale Design Guidelines to Adapt and Prepare to Face the Pandemics

**Authors :** Sara Ramezanzadeh, Nashid Nabian

**Abstract :** Historically, pandemics in different periods have caused compulsory changes in human life. In the case of Covid-19, according to the limitations and established care instructions, spatial alignment with the conditions is important. Following the outbreak of Covid-19, the question raised in this study is how to do spatial design in five scales, namely object, space, architecture, city, and infrastructure, in response to the consequences created in the realms under study. From the beginning of the pandemic until now, some changes in the spatial realm have been created spontaneously or by space users. These transformations have been mostly applied in modifiable parts such as furniture arrangement, especially in work-related spaces. To implement other comprehensive requirements, flexibility and adaptation of space design to the conditions resulting from the pandemics are needed during and after the outbreak. Studying the effects of pandemics from the past to the present, this research covers eight major realms, including three categories of ramifications, solutions, and paradigm shifts, and analytical conclusions about the solutions that have been created in response to them. Finally, by the consideration of epidemiology as a modern discipline influencing the design, spatial solutions in the five scales mentioned (in response to the effects of the eight realms for spatial adaptation in the face of pandemics and their following conditions) are presented as a series of guidelines. Due to the unpredictability of possible pandemics in the future, the possibility of changing and updating the provided guidelines is considered.

**Keywords :** pandemics, Covid 19, spatial design, ramifications, solutions, paradigm shifts, guidelines

**Conference Title :** ICAADS 2023 : International Conference on Architecture and Alternative Design Solutions

**Conference Location :** Tokyo, Japan

**Conference Dates :** January 09-10, 2023