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INVENTING FUTURE PEOPLE-CENTERED CITIES. THE STUDY ON MORPHOLOGICAL PARAMETRIC APPROACH IN ARCHITECTURE AND URBAN DESIGN

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It's exciting and inspiring to see how quickly digital technologies are progressing in this age, but it's also more difficult for designers and researchers to address their roles in this trend given how quickly artificial intelligence is being mobilized and how it's changing our society. In the meantime, nowadays the task of architecture and urban design is more challenging as it has to deal with its relationship with social diversity and even conflicts, which are becoming even more complex. Furthermore, it is impossible to ignore the urban environment and its societal context when researching and designing objects at any scale, from macro to meso to micro (both present and past). As a result, we must examine and study these objects in a larger context, such as the city, district, block, and neighborhood. Additionally, there are urban and architectural spaces present wherever social activities occur, indicating that society and people are always associated with spaces. These spaces aim to physically inhabit people as well as to inhabit their *perceptions* of those who are involved. In order to better address these realities in the fields of architecture and urban design, this study will look for a new framework by blending several relevant disciplines. The morphological approach to design and research may be extremely important in this regard. The study of investigating the urban forms of cities from maps, especially from the ground floor, is essentially helpful to observe not only the architectural and urban spaces but the spaces in between where life happens. *Spaces flow*, from inside to outside. More significantly, transitional urban morphologies are a practical conceptual tool for analyzing the urban form of modern cities in the context of their historical development, not only from the past to the present but also by taking a look at potential future configurations of urban planning and design (Trisciuoglio et al., 2021). Therefore, the study of transitional urban morphology would be beneficial for better understanding and mapping cities as well as for contributing to design future cities and architecture afterwards.

Particularly in terms of parametric design thinking, it implies that the parameters serve as essential components and variations throughout the design process for all types of designs, including architectural and urban design. In the digital age, advanced computational techniques empowered designers' abilities to realize and even arouse their ideas by simulating endless potential solutions and overcoming the constraints in the simulation of complex forms and patterns in the earlier age. In parallel with the development of digital technology, the model of design thinking has transitioned from cognitive models to computational models to the model of parametric design thinking (Oxman, 2017, 4-5). Simultaneously, in contemporary architecture and urban design, new frameworks emerged that have radically redefined the traditional conceptions of design, the built environment, and the roles of both designers and researchers. In this sense, it is essential to keep updating chronologically the epistemology and methodology of architecture and urban design. *This study intends to bridge urban morphology studies (including the transitional morphological thinking as well) and parametric design thinking, proposing that there is a possibility to bring the advantages of both studies together for studying cities and for better designing people-centered cities in the future.* The morphological design approach may guide, supply, and contribute to the "function heuristics" of parametric design, while parametric design thinking can help to enrich the diversity of the morphogenesis in urban morphologic design. The current work is to suggest a morphological parametric approach to urban design and architecture. It is a promising study that crosses and unites different disciplines to engage in and contribute to the *participatory design process*, as well as to build an advanced design framework for designing future *people-entered cities*.

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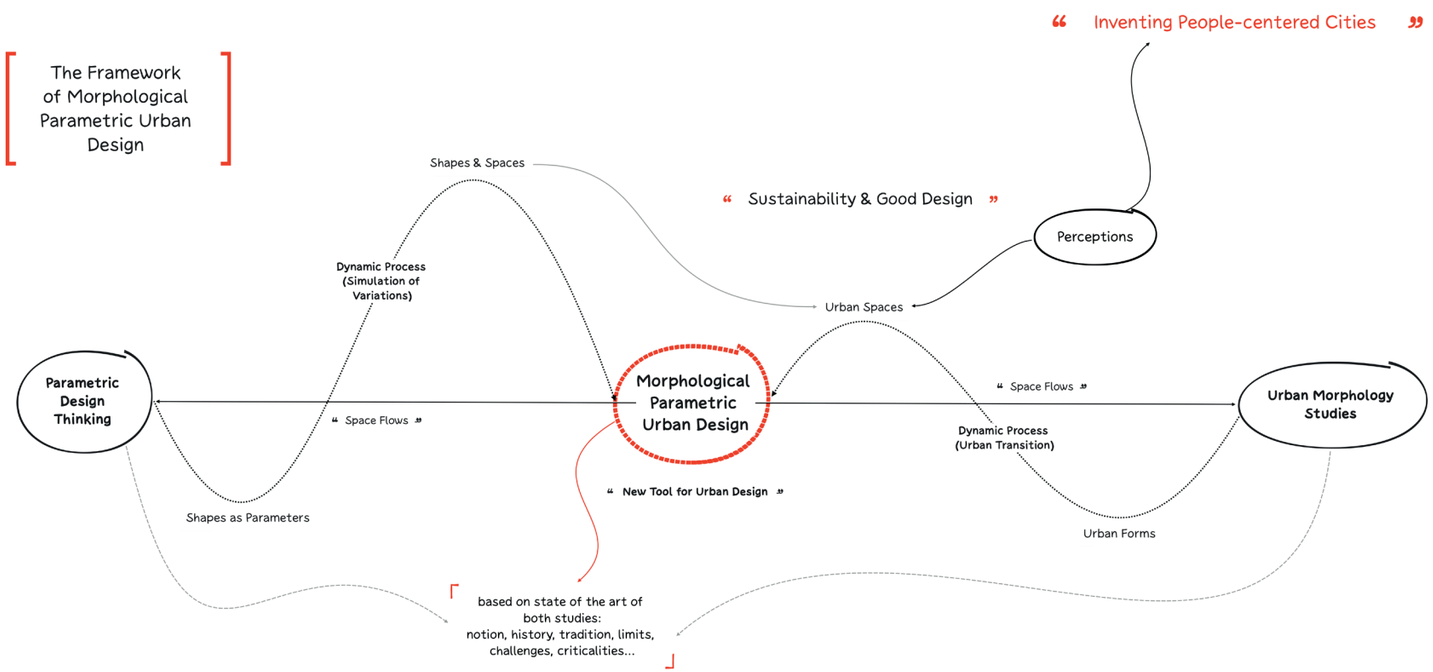

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