

EUCLIDIAN AND NON-EUCLIDIAN GEOMETRY, ARCHITECTURE AND HUMAN HABITATION: EXPERIENTIAL, COGNITIVE AND CULTURAL PARADIGMS AFFECTING ARCHITECTURE

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ABSTRACT

The paper opens with a comparison of a few examples of contemporary architectural spaces directly or indirectly related to Non-Euclidean geometry or geometric abstractions. The examples both contemporary and historic focus on public buildings as embodiment of diverse geometric principles. Leaving pragmatic communal, familial and personal spaces for concluding remarks. The profundity, beauty and diversity of geometric inspiration is explored through five examples:

1. Ancient Egyptian Geometry - Geodaisia and Architecture
2. Paladio's Teatro Olimpico -Vitruvius Planetary Geometry and its Adaptation
3. Divirigi Mosque Inspired Synthesis of Multiple Sources
4. Cosmati Geometric Pavments - Medieval Seven Generations Family Tradition
5. Holbein's *Ambassadors* - Geometric Elements of Architectural and Represented Space

In closing some psychological (Winnicott1967), cognitive (Meltzoff2003) and social (Bogoard1988) aspects of habitation and spatial ordering are approached. A few comparative examples will lead to open questions about needs, values and instincts as generators of livable spaces. Concluding with evaluation of paradigms affecting architecture and public and private human co-habitation experience.

KEYWORDS: Architecture - Geometry - Habitability – Ingenuity

(Given the paper does not fill the editing requirements, the editorial board has decided to publish only the abstract and its references list. For further, please, refer to the author)

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