The perfect dwelling is any place in the heavens: Platonism, mathematics and music: on Kepler's thought and the theory of architecture in the Renaissance

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Abstract

This paper sets out to analyse how Kepler's thought aligns with that of architects such as Alberti and Palladio: how that thought constructs an architectural place based on Pythagoras/Plato-derived geometry in which music plays a fundamental role.

It seeks to position Kepler as the architect of the ideal dwelling: a cosmic dwelling that was conceived analogously to the earthly dwelling of Alberti or Palladio. Like in Alberti's or Palladio's, Platonic influence is particularly evident in Kepler's work. He applies to his model of the universe the Platonic solids and calculation based on harmonic proportions while dealing with highly symbolic and aesthetic values. He also embodies in his theories fundamental aspects of humanist architecture, such as the prominence of mathematics, the mathematics-music's relationship's presence, the (human produced) work as an organism and the centrally planned design.

It is also important to position Kepler amongst those authors who paradoxically struggled between rationalism and mysticism - a struggle that was so characteristic of the 17th and 18th centuries. Those paradoxes that were still nurtured when Humanism reached maturity were manifested in the models they created.

Keywords: Humanism, Platonism, theory of architecture, Johannes Kepler