Chapter 28

Geometry in the Architectural Design of Rafael Moneo

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ABSTRACT

In the architectural work of Rafael Moneo, winner of the Pritzker Architecture Prize in 1996, geometry is a fundamental element, as he has confirmed through his writings and the very reality of his work. This chapter contains an analysis of the geometric component of his work, through his writings and interviews, but also through the drawings and models of his works that are most paradigmatic or most representative of his architectural style. Also analyzed are the possible influences from other architects and important works from the history of architecture. The conclusion is that the geometric component underlying his works has its roots in Platonic thought and that for Moneo, architectural ideas have an ontological nature, transcending the imperfection inherent in nature and approaching the perfection of Platonic order.

INTRODUCTION

If there is one dialog that reflects the true thinking of Plato, it is without doubt Timaeus, or of Nature. In The school of Athens, Raphael pictorially captured the wisdom of the ages that fostered the new Renaissance of which he would become one of its most prominent names. Among the philosophers, mathematicians and scientists, he highlighted the figure of Plato, placed with Aristotle in the geometric and perspective center of the composition. The work Plato is holding in his hands is of course Timaeus.

The main narrator, and the one who gives his name to the dialog, is the Greek philosopher Timaeus, who describes the four elements that make up the cosmos as a combination of geometric elements based ultimately on the triangle. Thanks to this geometry, ultimately forming the universe, the universe becomes a little more orderly and understandable to the human mind. All the elements emerge from this primordial triangle:

For either structure did not originally produce the triangle of one size only, but some larger and some smaller, and there are as many sizes as there are species of the four elements. Hence when they are mingled with themselves and with one another there is an endless variety of them. (Platón [393-389 B.C.] 1969, 1153).

However, the existence of the elements will lead us, or at least this seems to be Plato’s intention, to perception through a new concept, that of necessity and therefore of an incomprehensible presence, that of place. Plato says that:

*And there is a third nature, which is place, and is eternal, and admits not of destruction and provides a home for all created things, and is apprehended without the help of sense, by a kind of spurious reason, and is hardly real; which we beholding as in a dream, say of all existence that it must of necessity be in some place and occupy a space, but that what is neither in heaven nor in earth has no existence* (Platón [393-389 B.C.] 1969, 1149).

As summarized by Francisco P. de Samaranch, translator of the dialog from Greek to Spanish and author of the preface to it, “The theory of place thus appears in Timaeus like the physical transposition of a dialectical theory” (Platón [393-389 B.C.] 1969, 1115).

This theory of place would inspire many contemporary architects, including many outstanding figures such as Alvar Aalto, Aldo Rossi and, among the current figures, Álvaro Siza and of course Rafael Moneo, who went beyond its initial landscape connotations to examine the problem of architecturally introducing concrete buildings into a space. However, it is one thing trying to capture the *genius loci*, the spirit of place that the eighteenth-century English poet Alexander Pope rescued from Roman mythology and that Christian Norberg-Schulz instituted as a fundamental principle of architectural phenomenology, but quite another to achieve this.

Geometry would be an invariant in all of Moneo’s work, not only literally but also conceptually. As noted by the Spanish writer and historian Ángeles Caso:

*Moneo does not impose his buildings like an omnipotent God showing us the path to follow and the landscape to contemplate, but rather places them gently into the place with which, from that moment, they will be united. He knows how to find beauty and offer it to our eyes in the seemingly most simple way, one that is often the most difficult to achieve. Beauty in architecture is a very complex concept that affects both the appearance of the work as well as its utility, almost in a platonic way* (Moix, 2013).

Moneo designs his buildings starting with space seen in this platonic way. For him, the determining factors when undertaking a project have always been “Those related to the site and the program” (Moix, 2013). For him:

*A great work of architecture ends up being so blended into the environment that it does not attract attention. It is understood as part of it. This is the most that a work of architecture can aspire to… What in the twentieth-century was called “modern architecture” intended to blur the distinction between inside and outside. Works of architecture enjoyed such autonomy that they ignored the environment around them. I have always believed that this was not so* (Espejo, 2014).

It must be recognized that Plato, through his alter ego Socrates, expressed the following in his dialog Charmides, or temperance: “And if you were to ask me, what is the result or effect of architecture, which is the science of building, I should say houses” (Platón [393-389 B.C.] 1969, 276). However, it may also be understood that Plato assumed that a work of architecture, per se, could not be designed or constructed without considering the site it was going to inhabit.