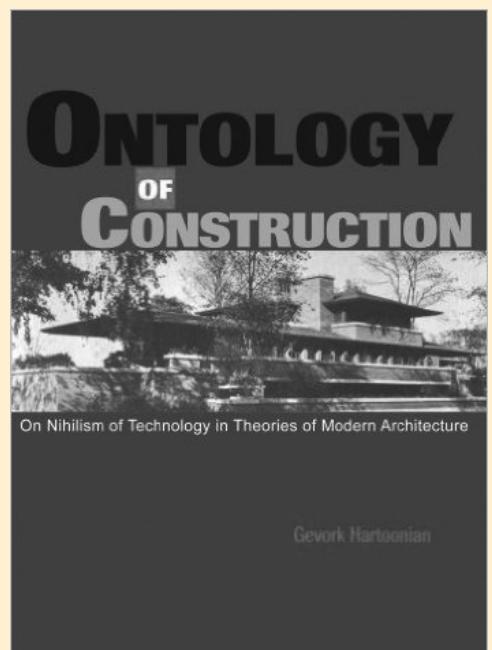


Book Review: **Ontology of Construction: On Nihilism of Technology in Theories of Modern Architecture**

Hartoonian, G. (1994).
New York: Cambridge University Press.
142 pp.

The widely reported controversial development of Tokyo 2020 Olympics stadium is a good example of discrepancy among the four critical areas in architecture identified by Horayangkura (2016), namely form, function, economy and technology that eventually failed to bring architectural design to life. The original design won by the award winning architect Zaha Hadid in 2012 was scaled back and eventually replaced by the more budget friendly version by the equally prestigious architect Kengo Kuma. Reasons given by Japan government as the project owner were the inevitably escalating cost to build the exceptional design using the unconventional construction technology.

Even though the key point of Gevrok Hartoonian's collection of essays is to explore ethics, traditional values and rationale development in the built environment after secularization from Christianity, significant parts of the book can be used to explain the incompatibility among the four critical areas especially between construction technology and other three architectural elements in the



recent history of western architecture. As suggested by Alberti, technology including tools, materials and know-how, recognised as *techne*, was separated but seamlessly linked with meaningful design to create totality in classical architecture. Since the continuously evolving technology can then

be used repeatedly with the measurable outcomes, it had gradually been replacing religion to become a new core value in architectural design. It started from the separation of technique, recognised as *techne* or “how” to do things structurally, from traditional design represented by professional guilds in late 17th century. Technique and technical process became a truly separated entity from artistic aspect of architecture in 18th century thanks to the invention of machines that led to the industrial revolution (Hartoonian, 1994, p. 29). Since 19th century, architects had been able to complete building design that fulfils, for the first time, both aesthetics and functional requirements using industrial new materials and techniques with supports from engineering specialists. As suggested by Hartoonian, “montage” that reduces the importance of totality, linear progression and the unification of meaning, representation and construction in architecture should be used as a new and more appropriate analytical approach to focus on values and experiences from the relationship between structure and space.

The influence of technology on tectonic in architecture have been widely discussed. Reactions from conservatives like A. W. N. Pugin and William Morris were typically negative. Their main concern was the inevitable decline of history, tradition and faith. As a result, the status of architecture in 19th century eventually became only a design utensil. Moreover, the field of architecture was assumed to be equal to engineering (Hartoonian, 1994, p. 6). On the contrary, German architect and theorist Gottfried Semper believed in the devaluation of craft based culture that was the core of classic architecture’s totality. This was the reason that made Semper identify a new set of fundamental elements of architecture. Instead of utility, strength and beauty as the three main elements of the classic triad Vitruvian model, Semper’s focus was on mostly archaic elements including earthwork, hearth, roofwork and screen wall in order to recognize one’s root as the strong basis for further learning. At the same time, Semper’s tectonic culture was also far from humanist perception. He saw that the new architectural design process was comparable to the industrialised production line of four industries including ceramic, carpentry, masonry and textile. Thus, the production of architecture became entangled with the existential aspects of life (Hartoonian, 1994, p. 3).

Semper’s idea could be consequently seen in the works of the influential Austrian architect Adolf Loos. His visionary design inspired by neoclassic architecture such as Looshaus (1909-11) and Steiner House (1910)

in Vienna were the fine examples of the new design paradigm. It was the combination between technology in terms of system of production and traditions seen as the typological reinterpretation of archaic and vernacular elements without elaborative decorations. The metaphoric outcomes of the two buildings clearly suggested secularization that separated culture and civilization from religion and its monumental classical architecture. In this aspect, distinctive Modern architecture designed by prominent architects at the turn of 20th century was also used in the comprehensive analysis to confirm the existence of technical positivity. Walter Gropius’s alignment of architecture representing arts and the new industrial production line representing technique was the example showing the reduced significance of metaphor and symbols. Moreover, Le Corbusier’s house-machine design that was not limited by information from the industry, utility and meaning associated to classical figures to achieve the new objectivity was also pointed out in Dom-i-no house (1914) and Villa Savoye (1928-1931).

In the later parts of this book, technology, tectonic and materials used in works by two prominent 20th century Modern architects were thoroughly analysed to emphasize Hartoonian’s key point of secularization. One chapter was specifically dedicated to Frank Lloyd Wright whose significant works like Ward Willets house (1900) represented the old traditions or *metier* using modern design languages. In a new context, Wright successfully combined design approaches from classicism as well as vernacular and modern discourse. It was the presentation of his own distinctive style with new materials that increased the values of Wright’s works. For example, hearth under a roof firmly linked to the ground always located at the joint of a cross-axial composition of a house was treated as the gathering place for family members. Another chapter was about Mies van der Rohe’s unique design based on his own minor language that played down the classical relationship between columns representing bones and walls representing skins. At the same time, Mies was trying to enhance the true understanding of construction through the combination of the precision of technology in steel and glass with culture and architecture. In Mies’ legendary Barcelona Pavilion, new meanings of columns and walls were created. Columns became the structural elements that created building form while walls only worked as partitions. The result of the interplay between columns and walls was a tranquil space wrapped up by sheer glass.

It can be seen from previous chapters that the recent history of theoretical development in architecture was initiated from either the references to the past or the preferences of modern ideas. In the final chapter, Hartoonian posted a question about the current state of architecture and the future development of architectural discourse and tectonic. The answers, however, might be found in the truth of the present where human existence and its living conditions are fully recognized. According to Hartoonian, construction "... should neither imply composition, as it was perceived by Renaissance architects, nor be reduced and narrowed down to the exigencies of the production line." Based on Vitruvius discourse, construction should be possibly framed "...in terms of associative dialogue among production, place and architecture." (Hartoonian, 1994, p. 86).

Reference

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