Form Making

The ideas of time, motion, and force have been applied in various areas, for example “Cubism” or “De Stijl” in art, and “theory of relativity” in science instead of Cartesianism, but in especially architecture this introduction is not easy, because buildings have to keep physical stasis, the rule of gravity and so on. So it is more difficult than art area, for example “Nude Descending a Staircase, No. 2.”; in this art work, Duchamp drew many human bodies for expressing the person coming down stairs with flowing on time, like a kind of afterimage. But this kind of introduction to architecture is impossible. How can we try to apply new idea on architecture? In my opinion fundamental function of buildings cannot change, but designer can incorporate this new idea—time, motion, and force—with form in design process. But this new advent may be possible with computer as a medium of generating form for architectural design.

According to Lynn, the three properties of organization in computer are topology, time, and parameters unlike conventional medium, pen and paper. Nowadays freeform buildings are built, in design and construction process computer is essential medium. Because we cannot externalize designer’s ideas without computer, even in generating design (architectural forms) process, computer has critical roles.

In two articles, I understood that architecture is so complex area connected with many fields. With the above mentioned technical development in that new computer software, in design process interdisciplinary knowledge is necessary. It has various characters, artistic aspects (creating something, expressing architect’s ideas), practical aspects (building some space to live, engineering, and construction), and scientific aspects (philosophy, social science, and history). Maybe some people think architecture doesn’t matter with philosophy or social science or history. But architectural building is the place to live people, and it interacts with text and context.

Few architects have a chance to create new forms or new space. Because most architects have to compromise with client’s tastes, financial reason, or social context. Using computer and modern technology, architects can make new form for architect’s creativity. But the important thing is to satisfy fundamental function of building like shelter with creating new form.

Unlike modern architecture tendency in the early 20th century, some designers, for example, Frank O. Gehry, tends to create new shape in architecture. With this tendency as the student studying design computing, what I have to do is to understand how I can make computer help architects without obstructing designer’s creative ideas. Now computer is not only presentation tool, but good enough tool to create new space (shape), express it, and construct it in virtual world and real world.