

## **Research on Relationships between Construction Methods of Temporary Architecture for Emergency and Constructional Organization of Volunteers**

### **Summary**

The objective of this research is about the relationship between required construction methods of temporary architecture for emergency and constructional organizations after natural disasters and disputes occur.

The existence of The Great East Japan Earthquake and refugee camp creates opportunities to recognize anew that the importance of temporary architecture for emergency is prompt and precise support. Except for architecture that administration corresponds, many of temporary architecture for emergency are carried and constructed by volunteers. After the Great Hanshin Earthquake, voluntary activities in Japan have established, and a large number of volunteers work on support activities for the Great East Japan Earthquake. However, throughout practice cases, the voluntary activities are gratuitous work, and it becomes hard to build hierarchical system to create organization.

On the other hand, there are many cases of temporary architecture for emergency which their construction methods need to be reconsidered. The causes are pointed out; required construction methods are different from general architecture, cost issues and construction period are under severe conditions, and there are many chances of volunteers who construct to be amateurs. Furthermore, depending on the methods of construction, requirements of constructional organization vary. It is necessary to clarify the relationship between construction methods of temporary architecture for emergency and constructional organization of volunteers.

First, as to five temporary architectures for emergency the present writer practiced so far, information flow diagrams of each project through the processes of construction are represented based on archives and information from the persons concerned. The result of the information flow diagram is used to schematized and clarified constructional organizations. Secondly, a construction method is determined as an assembly of constructional strategies. The strategies are categorized and clarified within the categories. The clarification of constructional organizations and characteristics of constructional strategies are analyzed in order to derive the relationship of each other. Thirdly, the relationship of constructional organization and construction methods are examined to describe how they function and effect on a project as a whole.

By analyzing and examining the consequences, clarification of the relationship between construction strategies and constructional organization leads to examine the relationship between construction methods and constructional organization. The result becomes beneficial knowledge and consequences toward organizing a constructional organization and designing temporary architecture for emergency hereafter. Moreover, the research indicates that it is possible to apply the result not only to the temporary architecture for emergency, but also to general architecture.

### Keywords

- 1. Temporary Architecture for Emergency**
- 2. Volunteer**
- 3. Construction Methods**
- 4. Constructional Organizations**
- 5. Flow of Information**