

Title : Dimensional Design Technology in the Horyuji Temple Architecture

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Sentence:

The purpose of this work is to prove that Horyuji Temple constructions had been designed using the construction measure named 'Kara-shaku' which in length slightly under 300mm.

In 1905, Dr. Tadashi Sekino had maintained that the Horyuji Temple constructions had been designed using the construction measure called 'koma-shaku' that has a length slightly under 360mm, and the many of his followers had supported this established theory. For about a century, Japanese Architectural historians had expounded that the Horyuji Temple constructions which include the Kondo (main hall), Pagoda, gallery and the inner gate, and site plan also had been designed by this construction measure.

In our current work, we have studied this established theory closely and have explored and analyzed the methods of the dimensional plan of many architecture in the ancient and medieval periods of Japan, and we found the clue to the riddle. The methods of acquiring the construction dimensional unit of length was derived from the distance between the rafters, and the site plan a unit made into 100 'Kara-shaku'. As the result, we arrive at the conclusion that Horyuji Temple architecture had been designed by 'Kara-shaku', and has been the standard measure of length from the 8th century downward in Japan.

(limit : within 200 words)