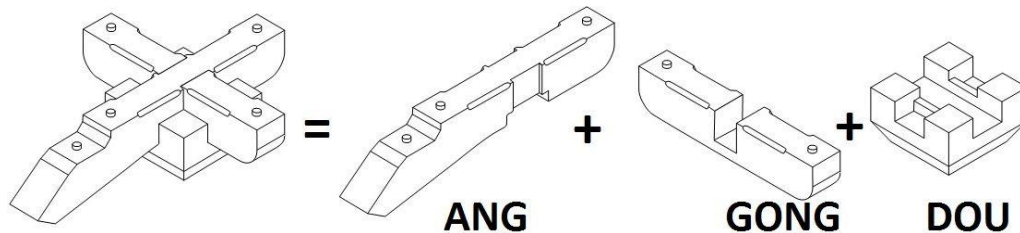


## Dǒugǒng Architectural Model

Dǒugǒng – It is a unique structural element of interlocking wooden brackets and blocks and is essential to the timber frame structure of traditional Chinese building.

This model of dǒugǒng shows how an interwoven system of brackets and blocks fits together without glue or nails. As an architectural construction, dǒugǒng connects the building's pillars and columns to the roof and forms a structural network that distributes the weight., and binds the roof and the pillars together.



The upward curving bracket arm (gǒng) extending from the pillar or beam supports the outwards thrust of the eaves. In turn, the bracket arms are supported by bearing-blocks (dǒu).

Due to the precision of the carpentry, the brackets and bearing-blocks are fit together by joinery, without glue or nails. The non-rigid wooden joints allow the buildings to slide and hinge while absorbing shock and vibration. This has made these structures very earthquake-resistant, and why many dǒugǒng constructed buildings have survived for so long.

Dǒugǒng structure was invented in late centuries before the common era, and further developed throughout Chinese history. Dǒugǒng construction was widely used in the China as early as the Spring and Autumn period (770–476 BCE) and developed into a complex set of interlocking parts by its peak in the Tang (618–907) and Song (960–1279) dynasties. After the Song Dynasty, dǒugǒng bracketing became more ornamental than structural. Chinese architectural dǒugǒng construction had a major influence on the architectural styles of Korea, Vietnam, and Japan.

Dǒugǒng construction short video

<https://www.youtube.com/watch?v=6EMJ8sOzjrc>

PBS NOVA Secrets of The Forbidden City

<https://www.youtube.com/watch?v=QgNmbaCKQw4>

### Collection Connections:

Prosperity Gate, China, 1858, Qing dynasty, yu and pine woods, stone, earthenware tiles, pigments, mortar, 2017.152

Wu Family Reception Hall, China, early 1600s, wood, ceramic, tile, plaster, lacquer, stone, 98.61.1

Model of a Watchtower, China, 1st-2nd century, low-fired earthenware with green glaze, 2002.90.4

Military Watchtower, China, 1st century, low-fired earthenware with green glaze, 98.69A,B