

# Gyeongju in South Korea

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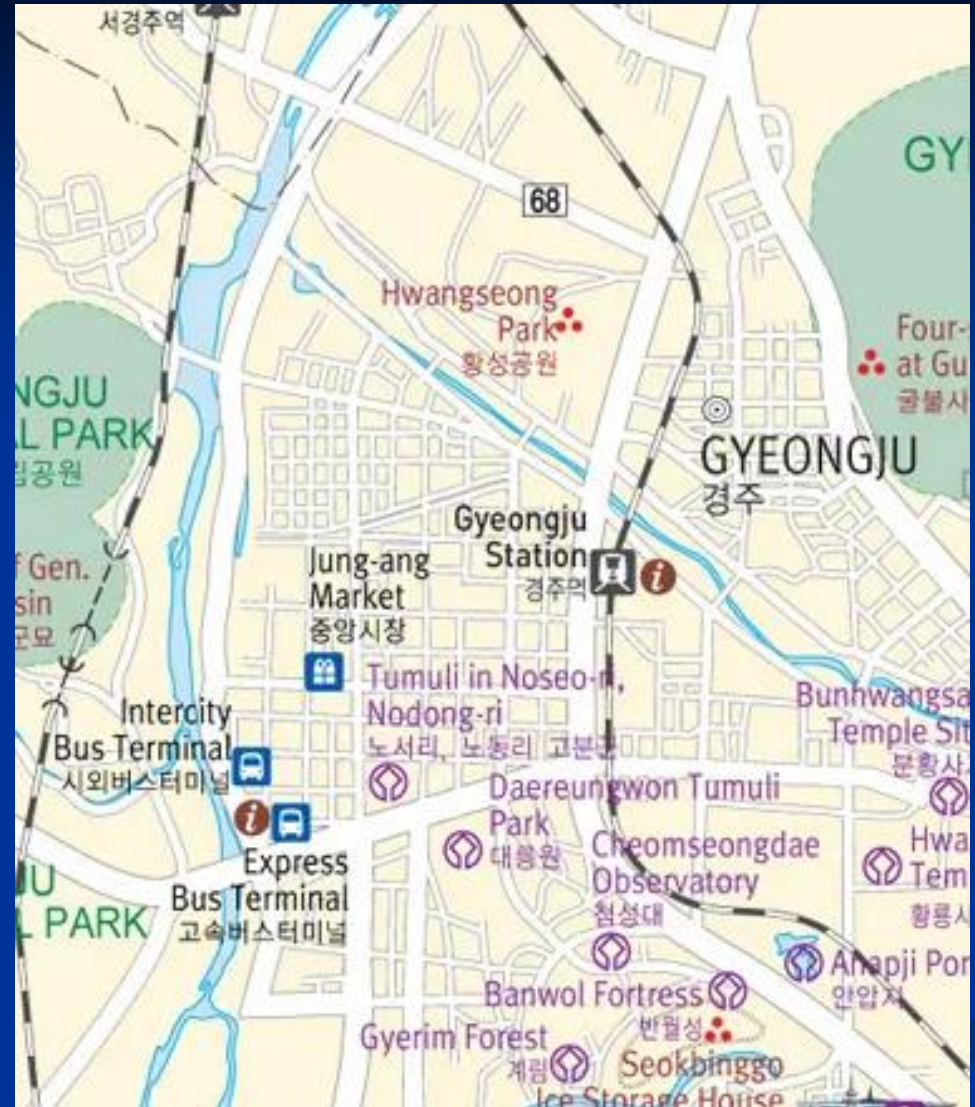


N

**Gyeongju** was the capital of Korea (Silla) between 7th and 9th century according to mentioned before. It has an axis north-south parallel to the river, squared distribution.

The Hwangseong Park in the North and the Cheomseongdae Observatory in the South

The pavilion stone is believed to have been used as a standard of deciding directions, N, S, E and W.



S



# Cheomseongdae is the oldest (7<sup>th</sup> century) existing astronomical observatory in East Asia.

It was built in a cylinder shape with 362 stones piled up to make 27 levels (362 days of lunar year). It stands 9.17m high and the base stone on each side measures 5.35m.

At 4.16m from the bottom there is a 1m<sup>2</sup> square entrance and a space to hang a ladder under it. This entrance is filled with soil up to the 12th level



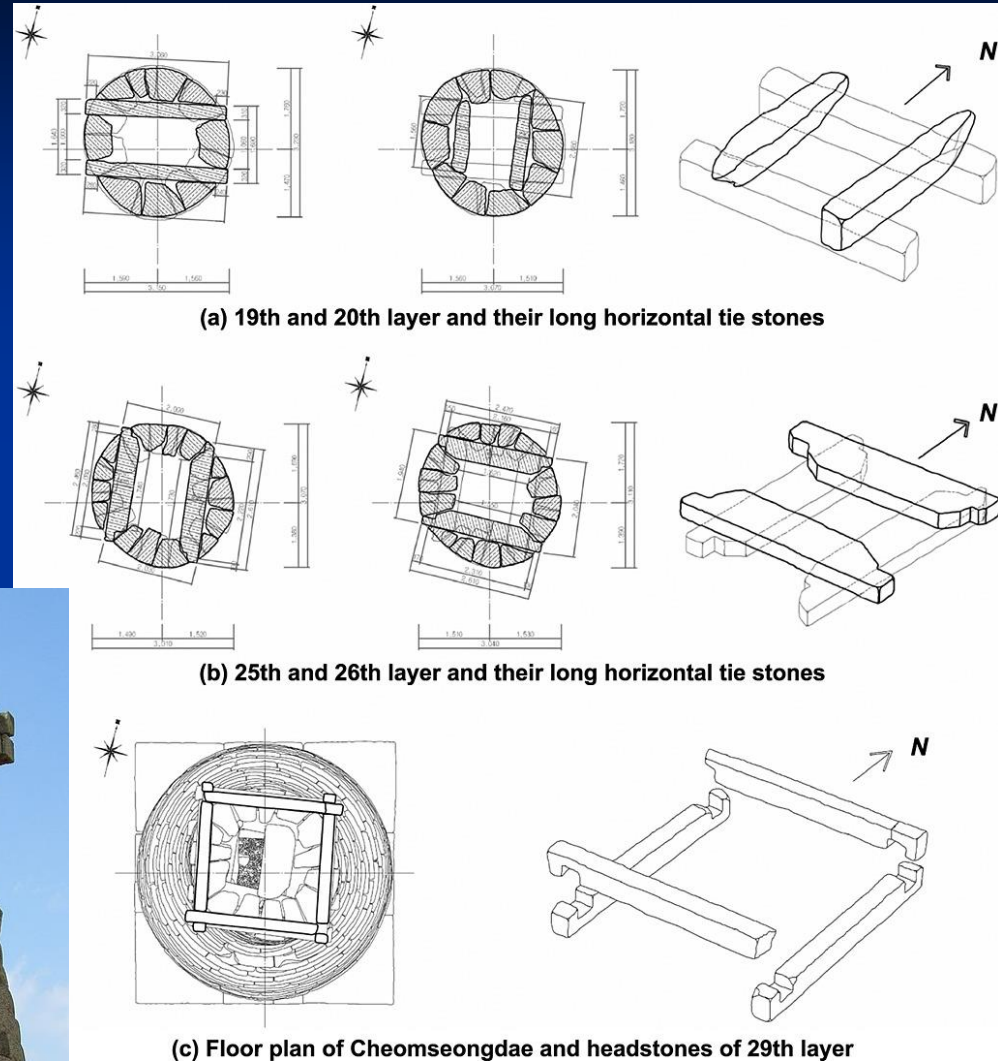
symbolizing the 12 months in a year and the 24 solar terms



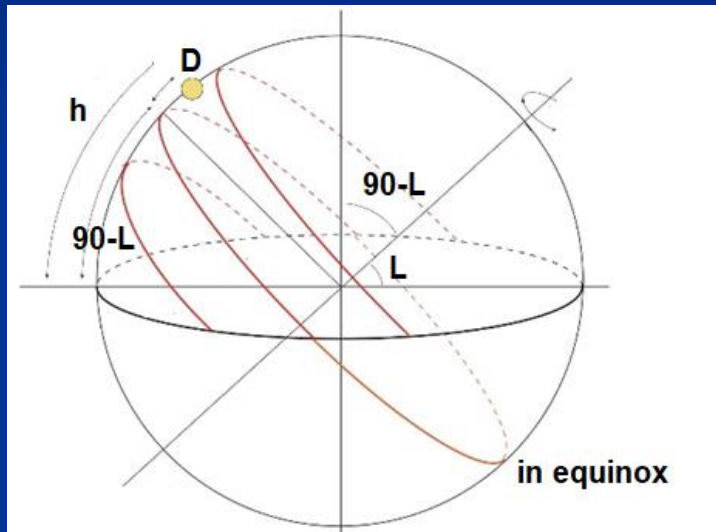
# Listed as no. 31 on the official list of National Treasures of Korea

The 19th, 20th, 25th, and 26th levels all have long rocks hanging on two areas, shaped Korean Hanja character 井

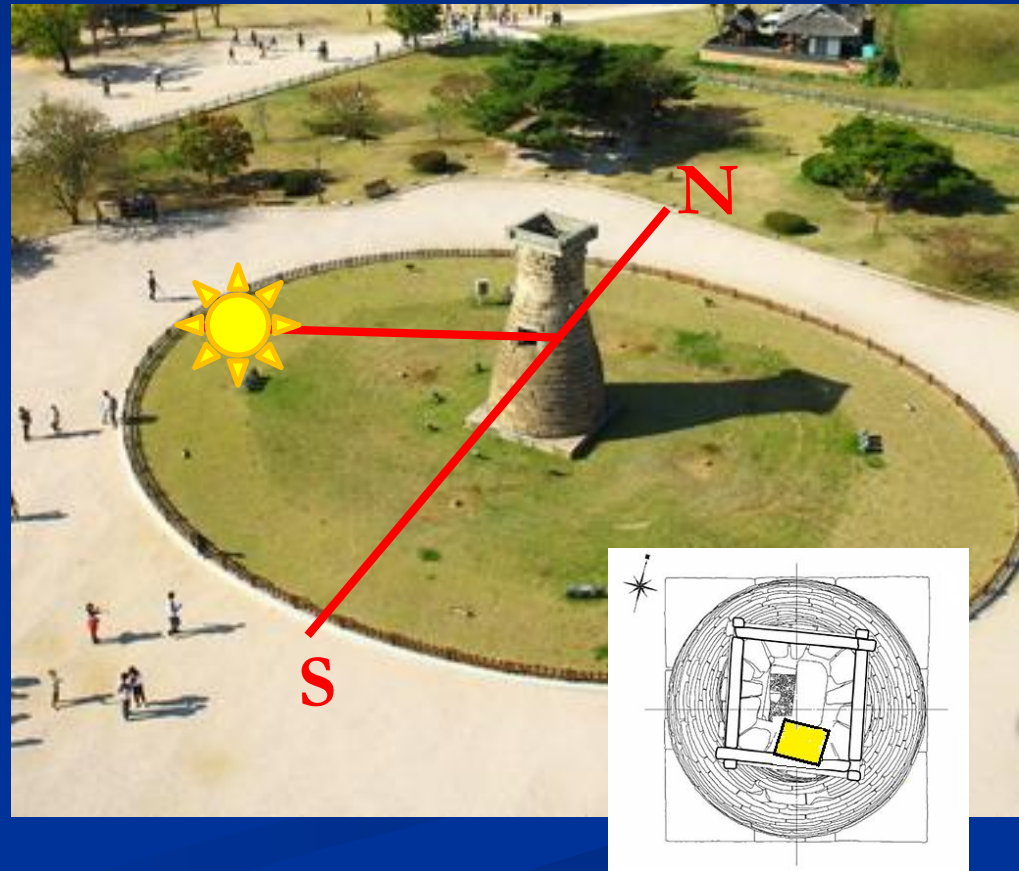
(Hangul: 정 "jeong"), meaning "well."



It acted like a sundial but also has a south-facing window which captures the sun's rays on the interior floor on each equinox ( $D=0$  and  $h=90^\circ-L$ ).



Gyeongju Latitude  $36^\circ\text{N}$   
 $h = 90^\circ - L = 90^\circ - 36^\circ = 54^\circ$



Originally there may also have been an armillary sphere on top of the tower

Thank you  
very much!

