

SUNDIAL AT COPAN

Copan,

Honduras, América

Cristina Pineda de Carias

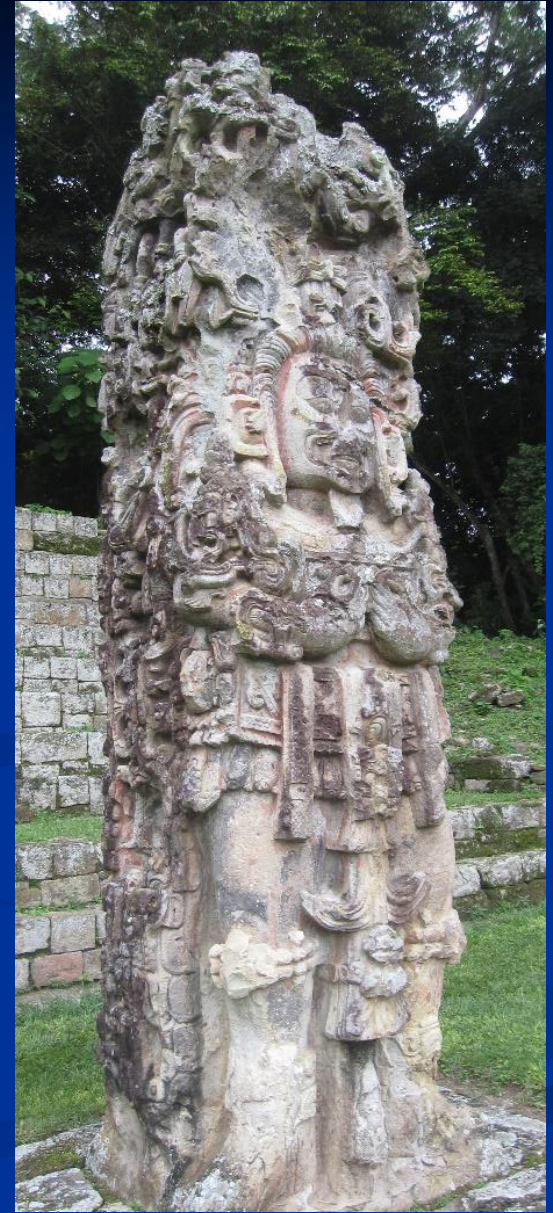
International Astronomical Union

*Suyapa Central American Astronomical Observatory, National
Autonomous University of Honduras, Honduras*



From 695 A.D. at 738 d. C.,
Copan was ruled by
Waxaklaju'n U 'B'aah K'awuil
(" 18 Rabbit ") in late Maya
times.

"18 Conejo" restructured the
North part of the existing
buildings in the Plaza del Sol in
Copan and added various
stelae, including Stela D that
acts as a clock.

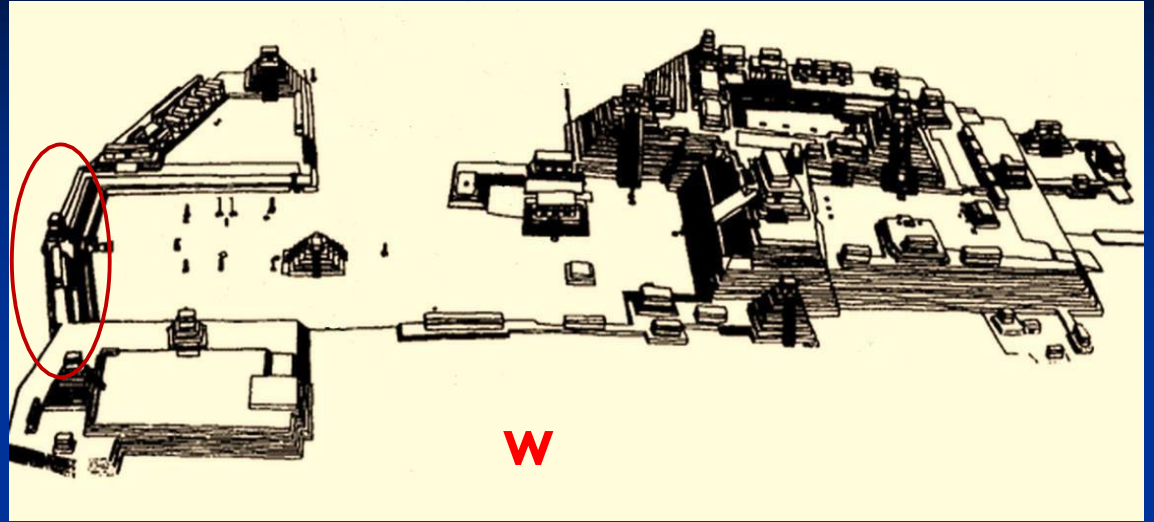


Estela D

Copan archeological site



N



E

W

S

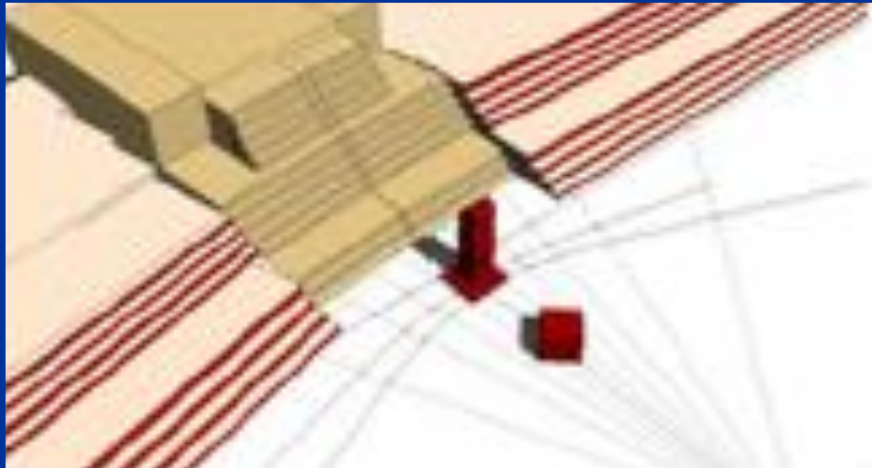
Acropolis



PLAZA DEL SOL

Winter Solstice December 21st

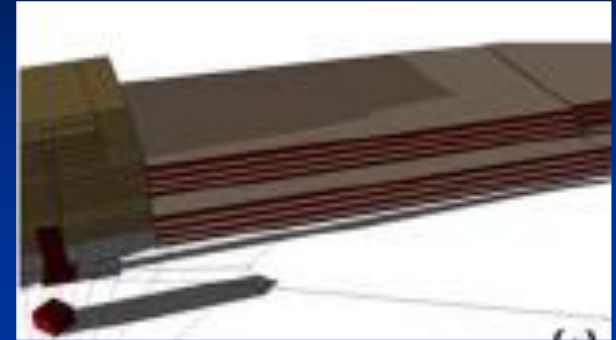
Shadow at noon



Spring Equinox March 21st



Sunset



Stairways oriented East - West

1st Zenit Sun Passage 30th April



Stairways oriented
to the Sunrise



Sunrise

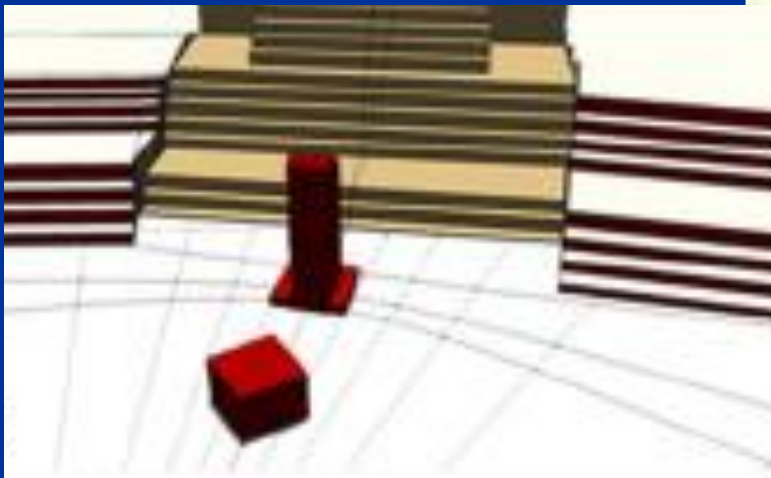


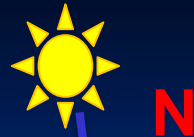
There are no
shadows at noon



Summer Solstice June 21st

Shadow at noon





N

Sunrise on Zenith Passage

Local meridiane

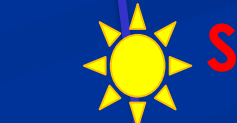


E



Sunset on Equinoxes

W

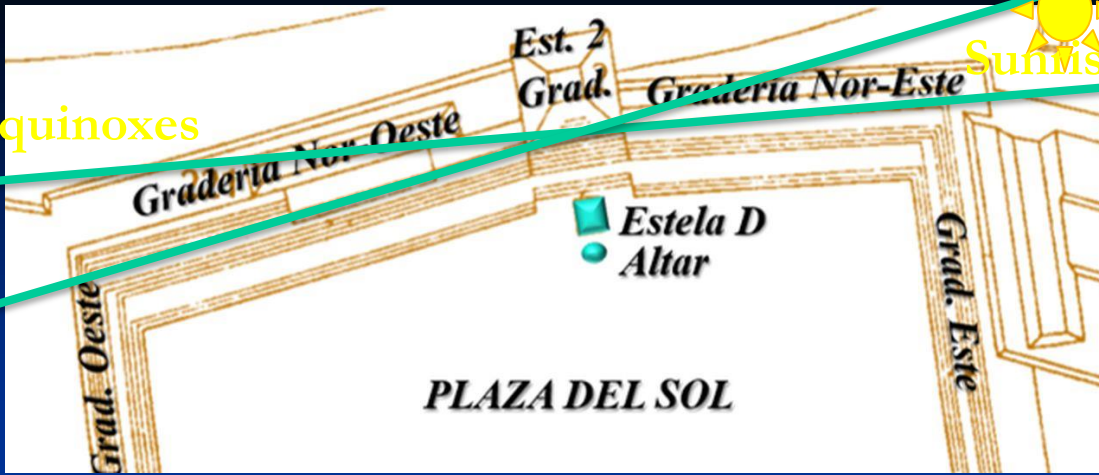


S

Local meridiane

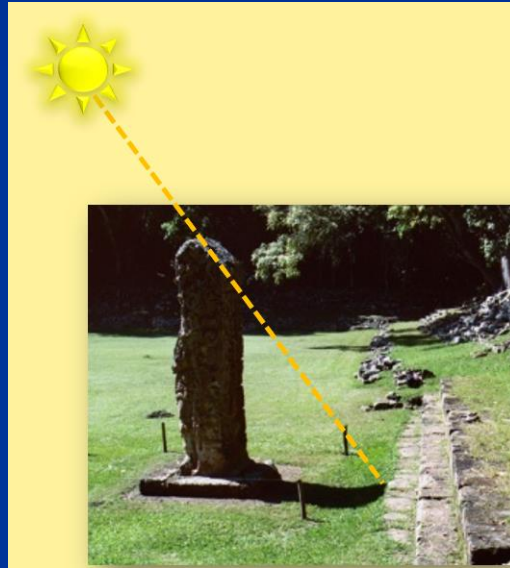
Sunset on Equinoxes

Sunrise on Zenith Passage



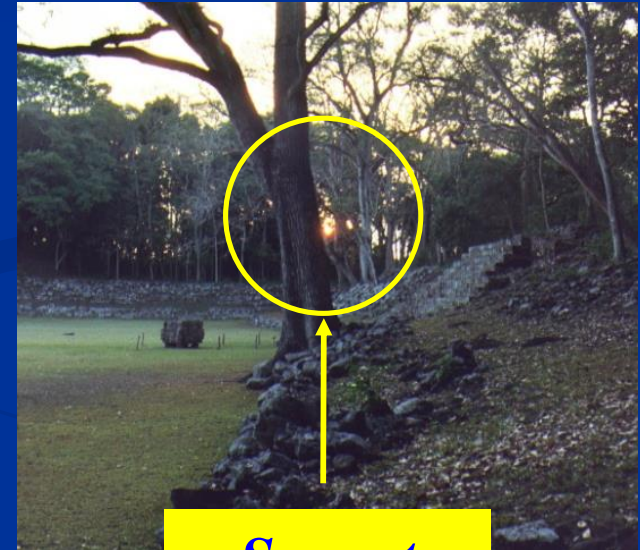
Sunrise

North-West Stairway Oriented with Zenith Passage



Migday Sun

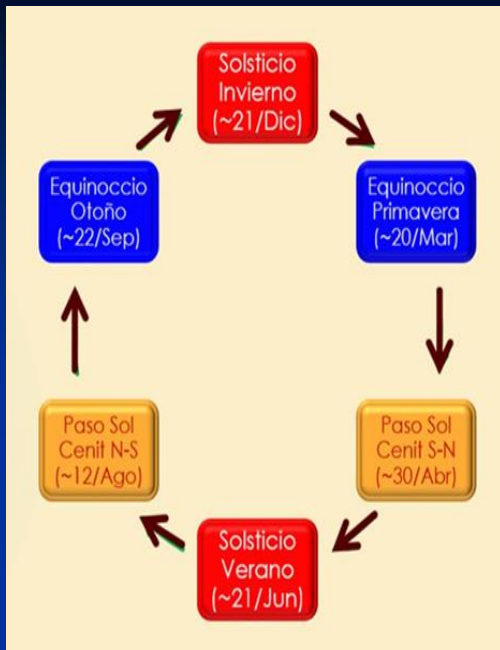
Central Stairway The shadow of Stela D touches the first step



Sunset

North-East Stairway Oriented with the Equinox





Winter Solstice December 21st

Spring Equinox March 21st

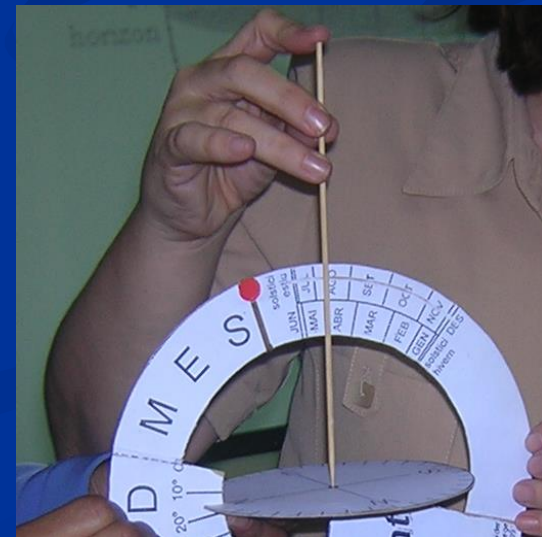
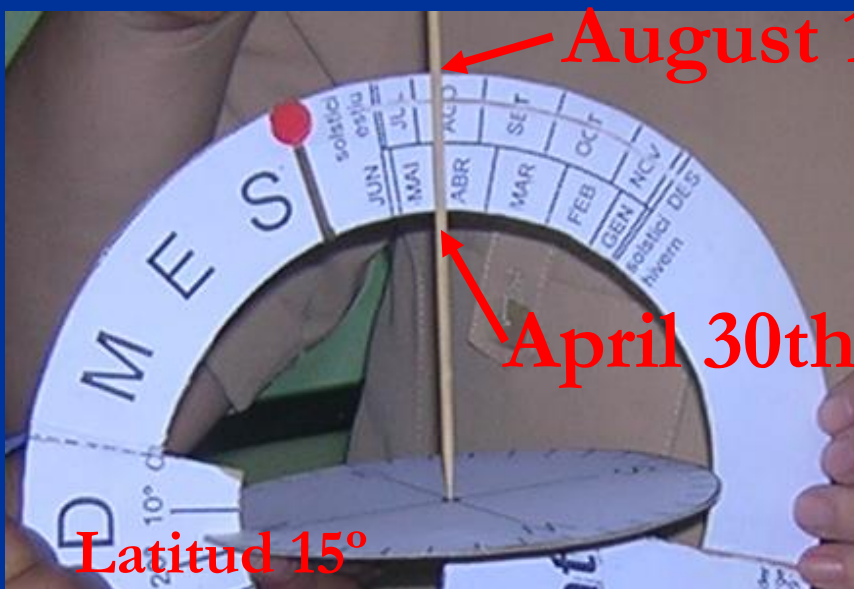
1st Zenit Pass April 30th

Winter Solstice June 21st

2nd Zenit Pass August 12nd

Autumn Equinox September 23rd

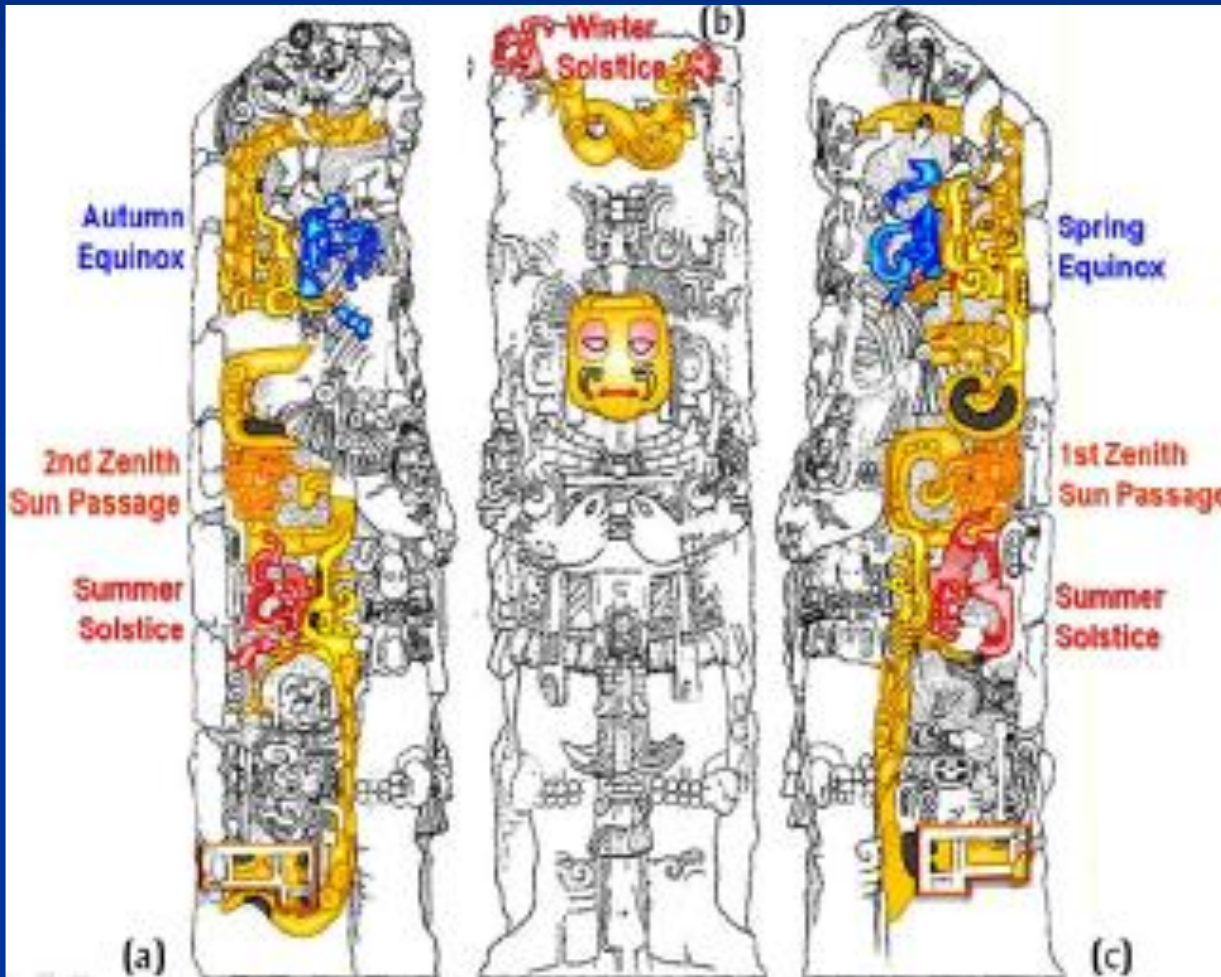
Winter Solstice December 21st



The colored glyph represents the Sun in the sky. Shadows move, like "bodies of Snakes." The head towards the Sun and the shadow in the opposite direction to the Sun.

Snakes are intertwined to the north in the king's headdress. The solar year ends and begins

N



The Snake is to the north because the Sun is to the south, and the head also to the south

There are no shadows, the Snake is very small and looks up, because the Sun is at the zenith

The Snake is to the south and is buried in the stairway, because the Sun is to the north



S

E

W

**Many Thanks
for your attention !**

