

# ANCIENT MESOAMERICAN LIVING SKIES



UNAH  
UNIVERSIDAD NACIONAL  
AUTÓNOMA DE HONDURAS



PhD. JAVIER MEJUTO

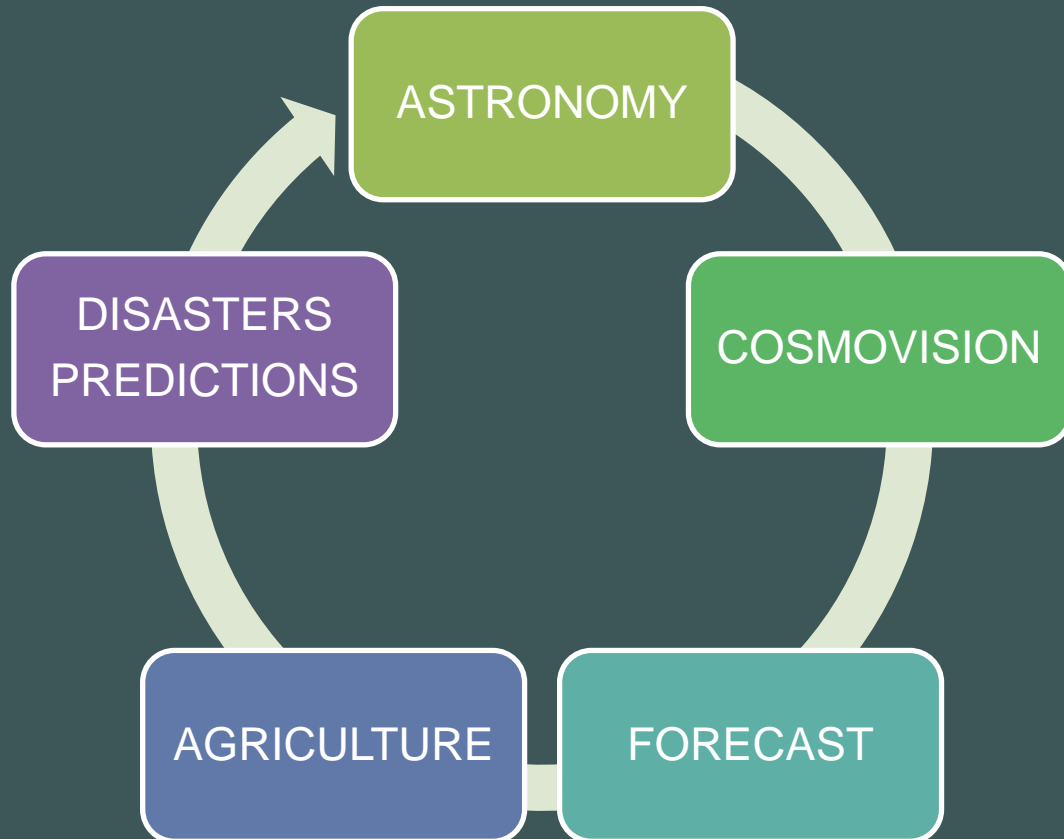


CAASTRO  
ARC CENTRE OF EXCELLENCE  
FOR ALL-SKY ASTROPHYSICS



# WHY ASTRONOMY?

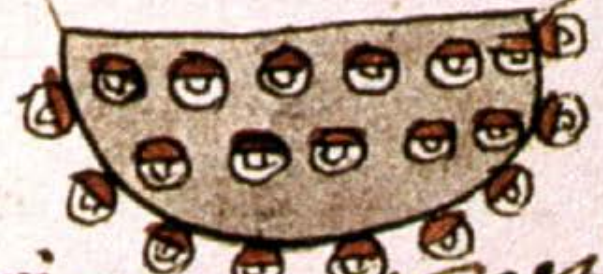
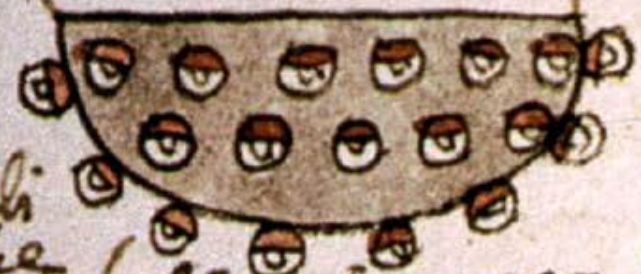
- ASTRONOMY AS A SURVIVAL TOOL – PERFECT CLOCK
- SEARCH FOR UNDERSTANDING THE WORLD THEY LIVED IN
- PERFECTLY WELL DESIGNED OBSERVING METHODOLOGY
- GROUP OF PROFESSIONAL OBSERVERS - ASTRONOMERS



MADRID CODEX  
APROX. 1000 BCE

esta pintura con  
ojos significa  
la noche

esta pintura con  
ojos significa  
la noche



m  
no  
pali  
ofre  
el de  
Uena  
elero  
ms  
ms  
el  
a  
n

Alfaqui mayor / *esta tocando el  
tepanaztli / que es  
instrumento de mu-  
sica / en ella  
se exercita de  
noche*

Alfaqui mayor / *esta se no  
de mirando las estre-  
llas en el cielo para ver  
la hora que es / que tie-  
ne que ser cargo /*



# MESOAMERICA

PAUL KIRCHHOFF 1943



# OLMEC COSMOLOGY

AHUELICAN JADE PLATE, MÉXICO  
APROX. 1000 BCE



# **OBSERVATORIES**

- **HEMISPHERICAL STRUCTURES**
- **SIMILAR TO MODERN OBSERVATORIES**
- **WERE USED TO UNDERSTAND MAIN “STARS” POSITIONS**



**CARACOL, CHICHÉN ITZÁ**



- HORIZONTAL OBSERVATORIES
- WERE USED TO KNOWING SUN EXTREME POSITIONS AND ZENITH PASSAGE





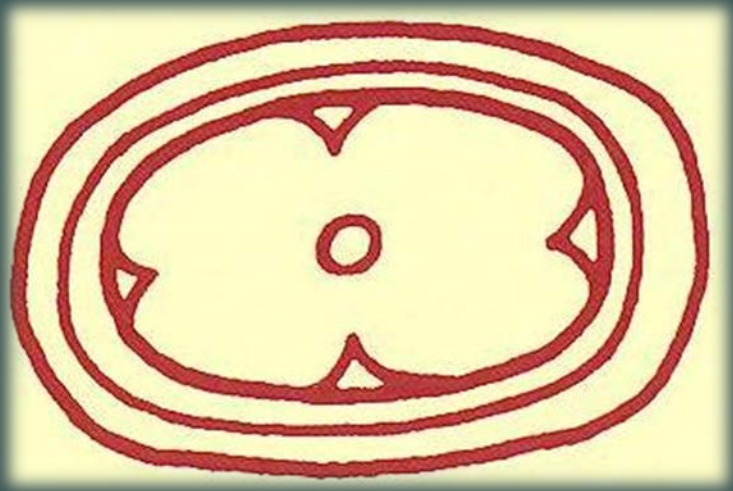
XOCHICALCO, MÉXICO



- VERTICAL OBSERVATORIES
- WERE USED IN SUN ZENITH PASSAGE
- CONNECTION WITH THE UNDERWORLD



P STRUCTURE  
MONTE ALBAN, MÉXICO



**SUN**

KOHUNLICH, MÉXICO



KINICH AHAW

COPAN RUINAS, HONDURAS



KINICH AHAW

MAYAPAN, MÉXICO

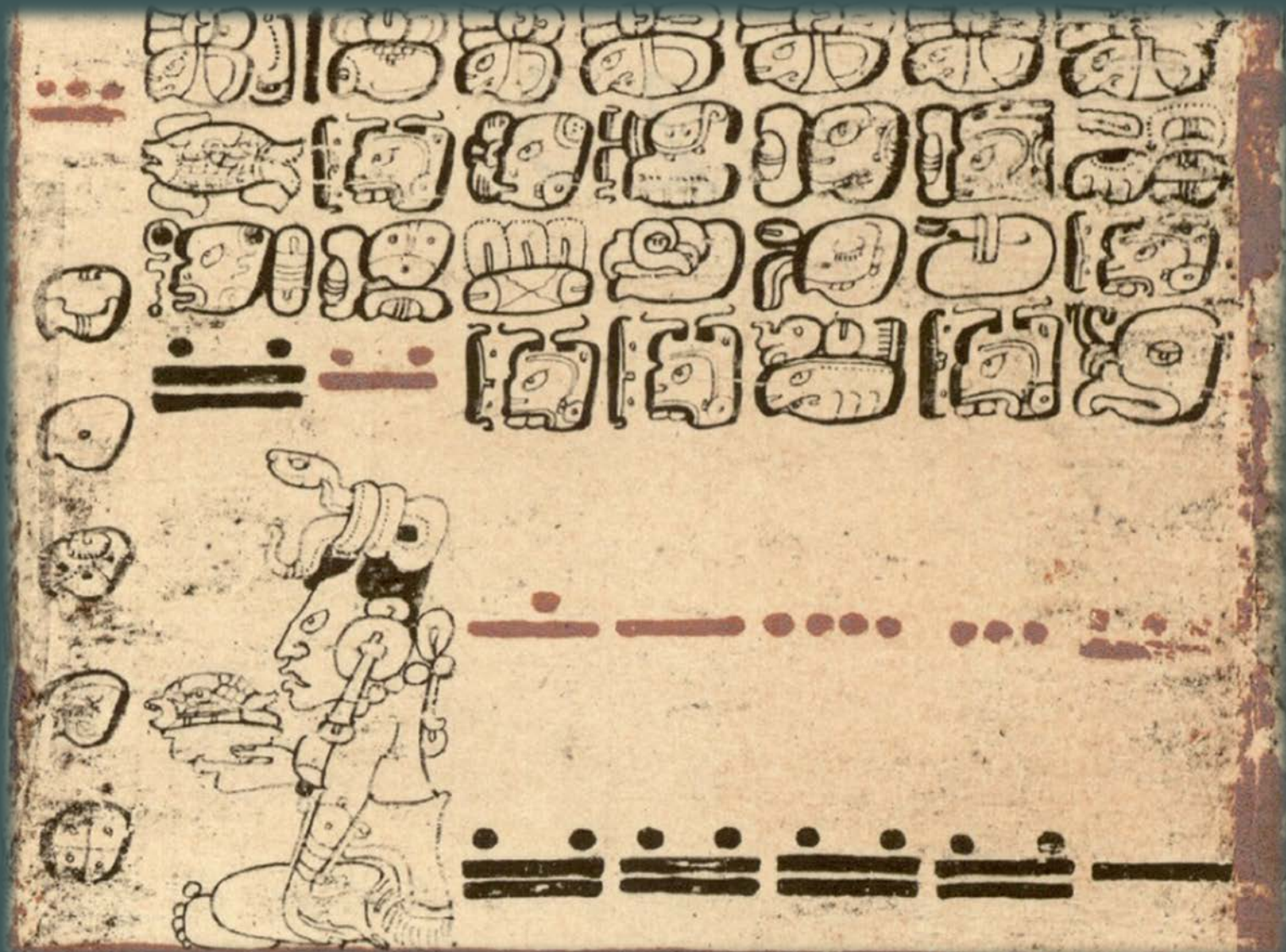
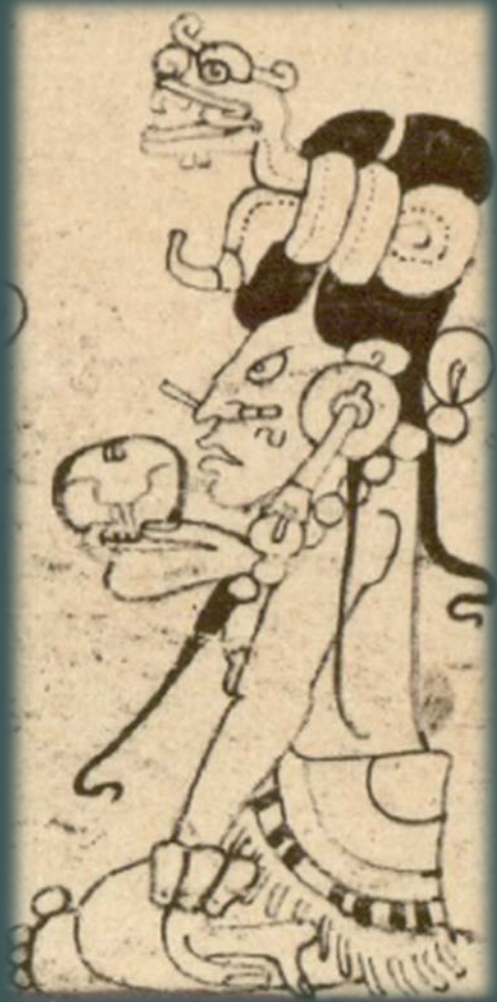


KINICH AHAW

**MOON**





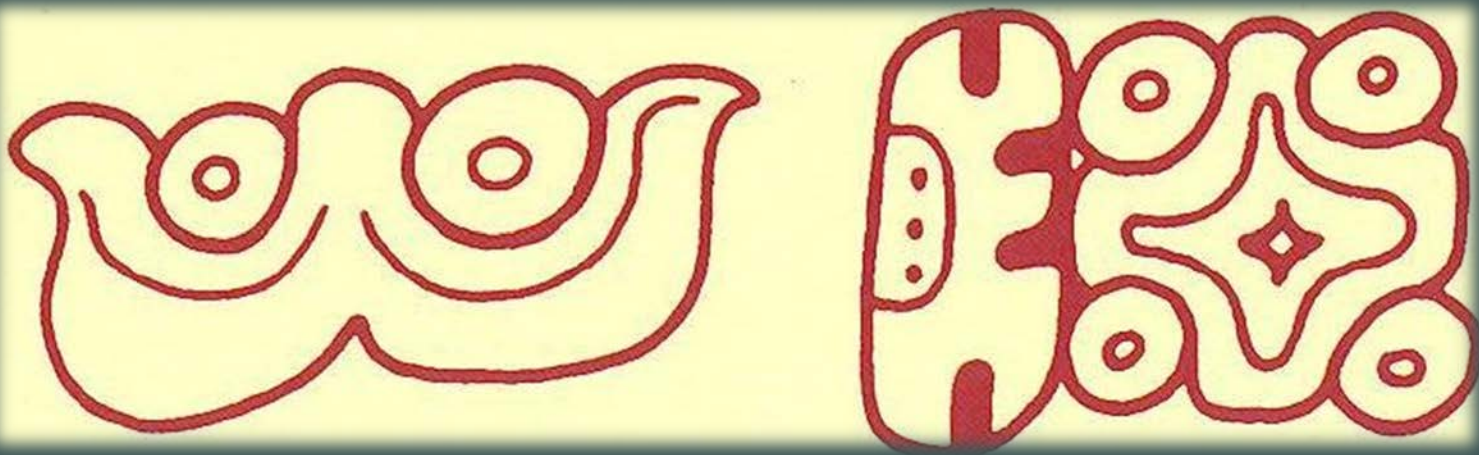






**CELESTIAL BENCH  
COPAN RUINAS, HONDURAS**

# PLANETS/STARS



# VENUS

## EK'

- Ah-Chicum Ek'      Big Morning Star
- Ahzab Kab Ek'      Star that wakes up the Earth
- Xux Ek'      Wasp Star
- Chak Ek'      Red Star
- Noh Ek'      Big Star
- Sastal Ek'      Bright Star

CACAXTLA, MÉXICO



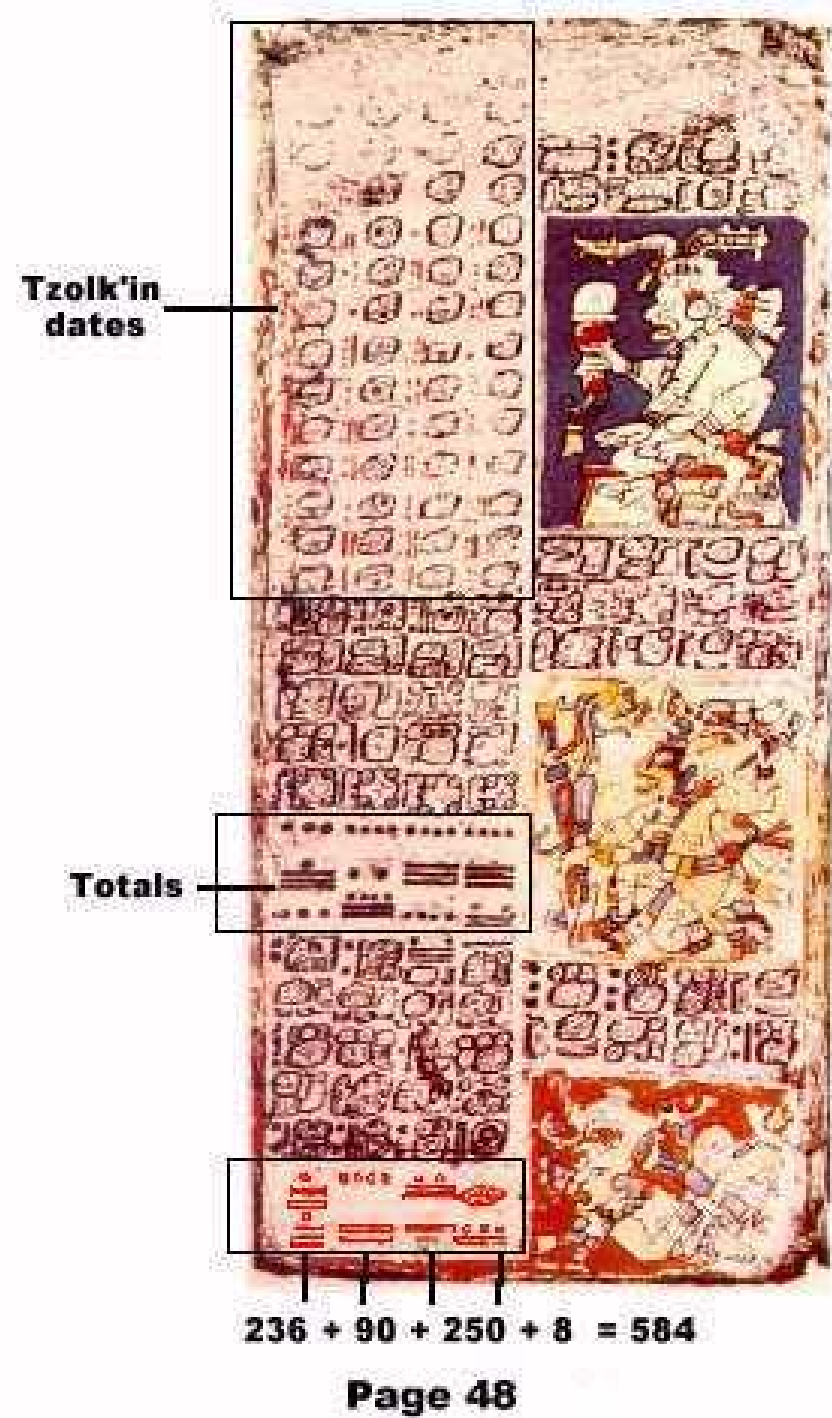
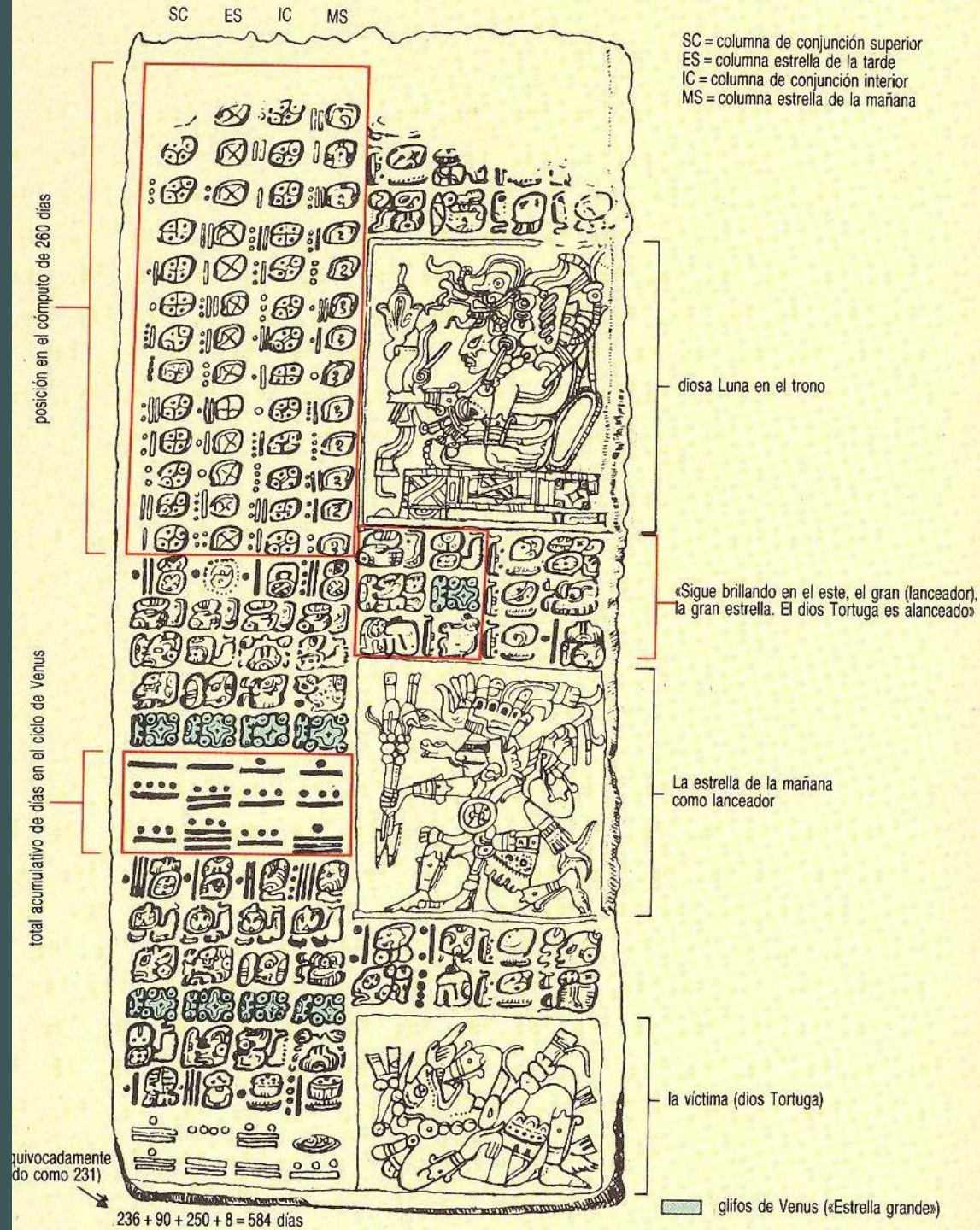
# VENUS



# VENUS

## SYNODIC PERIOD VENUS

584 DAYS



# VENUS – SUN RELATION

**5x584 DAYS = 8X365 DAYS**



# ECLIPSES

Handwritten text in a medieval script, consisting of several lines of letters and decorative flourishes.

Text block featuring a large, ornate initial letter 'D' in black ink, followed by several lines of text in black and red ink.

Text block containing multiple lines of text, with a prominent red line separating it from the section above. The text is written in black and red ink.

Text block with several lines of text, including a large initial letter 'D' in black ink.

Text block featuring a large, ornate initial letter 'D' in black ink, followed by several lines of text in black and red ink.

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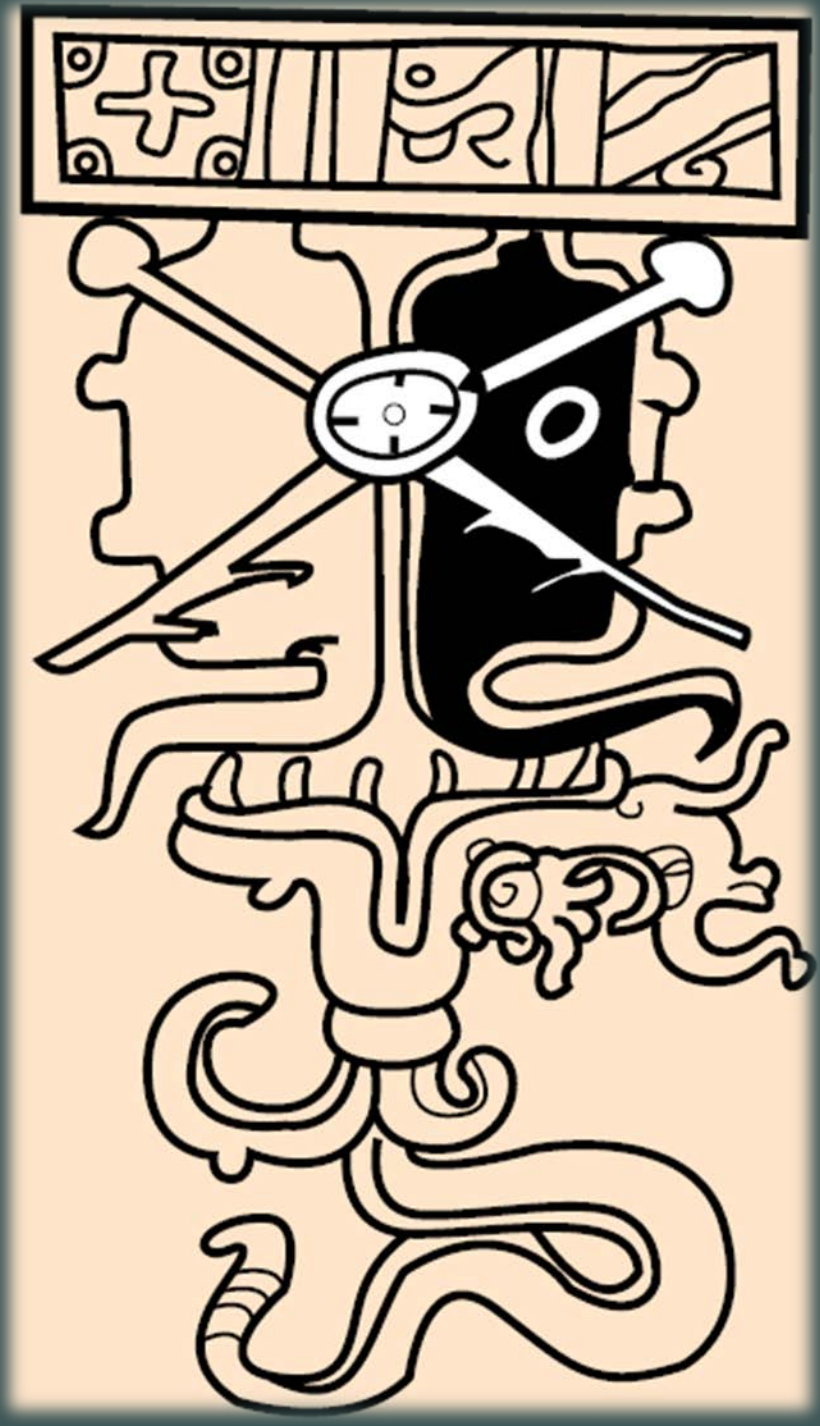
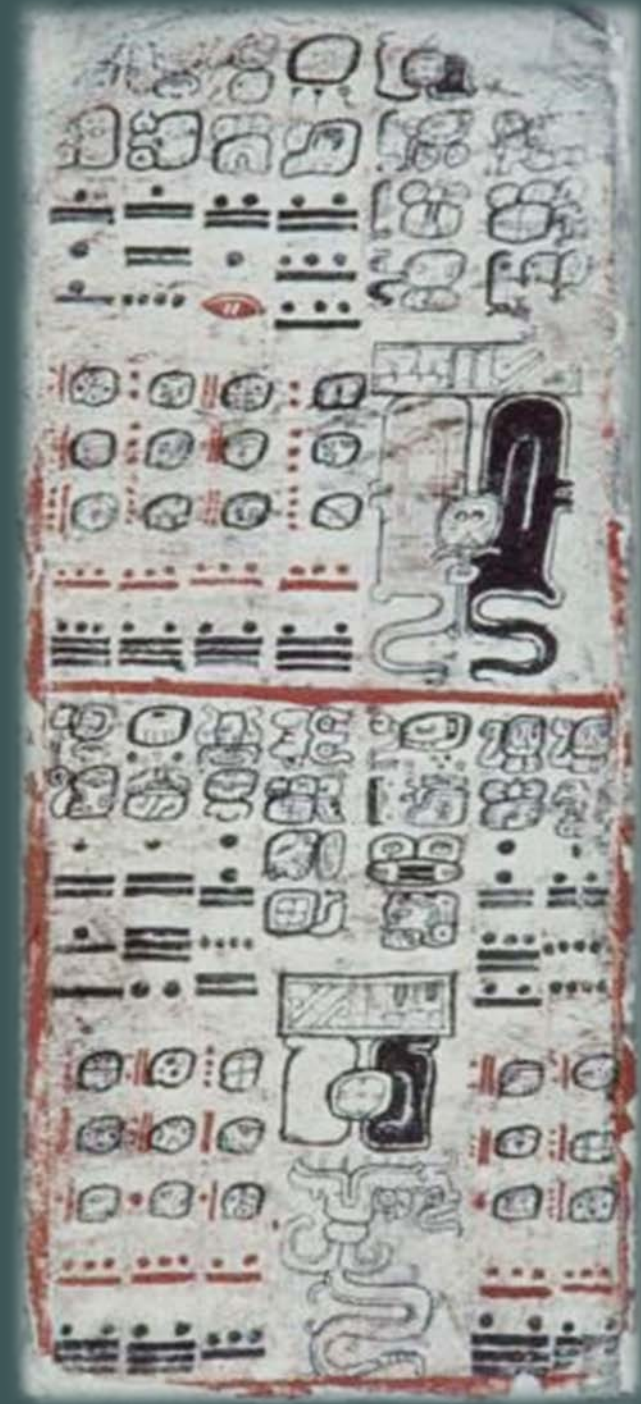
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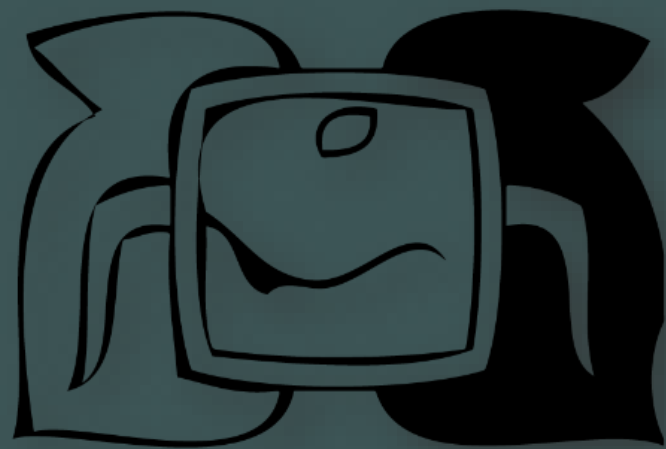
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Text block containing multiple lines of text, with a prominent red line separating it from the section above. The text is written in black and red ink.







# **OTHER PHENOMENA**

<sup>Vice</sup>  
 Inic cap. ytechilatoa millmicavastul yoa qmicloncauth.  
 Inica parapho ipamitoa inintoca **Fiedilanz-tllis.**  
 Iniquac valmomana tonatuh itenamaco haqu vchpionalo  
 ite opoda mitoaya oval quip inonatiuh ayero qui q' caya  
 iteac inlaualipya mic. 3. iquac inuapan tonatuh icna  
 4. iquac ymopiloa tonatuh. Inic. v. iquac ino cala qui ton  
 tuh mitoaya otequit o'kac'ic inonatiuh.

mehtli. quimoteotiaya inxaltocamaes.

tonatuh quallo ya. concanamauh tloya mitoaya  
 inlaqui kamiz inau quonatiuh quismachantla  
 ioyaz valte moy que in h'itimiz te'ca quaz que.  
 auh iniquac conca mic. ni quia immanalti  
 yoa mochilla catl mizoya inno via momuzo  
 yoa inca calco yoa haco quixtloya 7 natia  
 teteupa mochtla catl monacoztequia ayvini  
 7 mochi vaya.

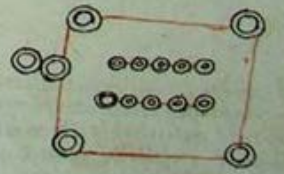
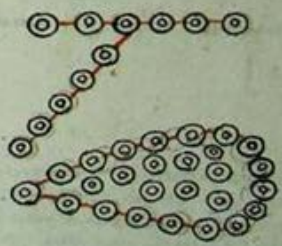
mehtli quallo. ynotificat ex una moma uhi taya quitoa  
 ya quimach quimich' mochiepa que auh impipilto  
 toni haca'ia inipan qualora mehtli inaca yaca  
 quatic anoc ten quatic auh impipilto ton moxama  
 ya inipa co'entol mehtli inlacamo moximazico  
 coliz qui ayvini immi toaya.

mamalhuozli. Iniquac ovatonatiuh yvelayacavi icuac  
 oppa'ienama'c icmitoaya oval vel yiovalfeatti ya.  
 avizli yorequiti yeta coliz auh inicopa itenamaco i quac  
 ynta quauh flapoyava. Inic. 7. itenamaco iquac 7 netete  
 quipya. Inic. 4. itenamaco i quac inllalapi hali'ya auh  
 7 machiyot 7 mamalvaz'li yoa mic yoa n' tayan  
 qu'zli y quac nep'alla omomanaco nimayeic h'atapi  
 mic'allo icmitoaya h'atapi calizpo. Inic. v. itenamaco  
 y quac 7 mitoaya ticalla i quac ne'ovaya viz'li mo  
 au nevizmanalo. Auh 7 machiyot 7 mamalvaz'li  
 yoa mic yoa tayan qu'zli omopiloto. Inic. vi. itena  
 maco y quac yvalcholoa c'istali auh ymic. 7. h'ona  
 machiyot quipalla inc'istali 7 mic.

7 h'aspul. h'antex'ia.

7 h'alinpupca. ipamitoaya canayevalmoza cuaz  
 7 auyul' mochi naz anoc a cadoy h'acopilli mi quiz.

7 h'alinh'amina. amone quica aco'och'li anoc d'ni  
 d'ni inquimino y'ic mote'ca' oculi amo'qualo mo  
 d'ni u'la mochi va ynoc' qui o'auli y'ic cala qui.



1531  
~~1548~~

24

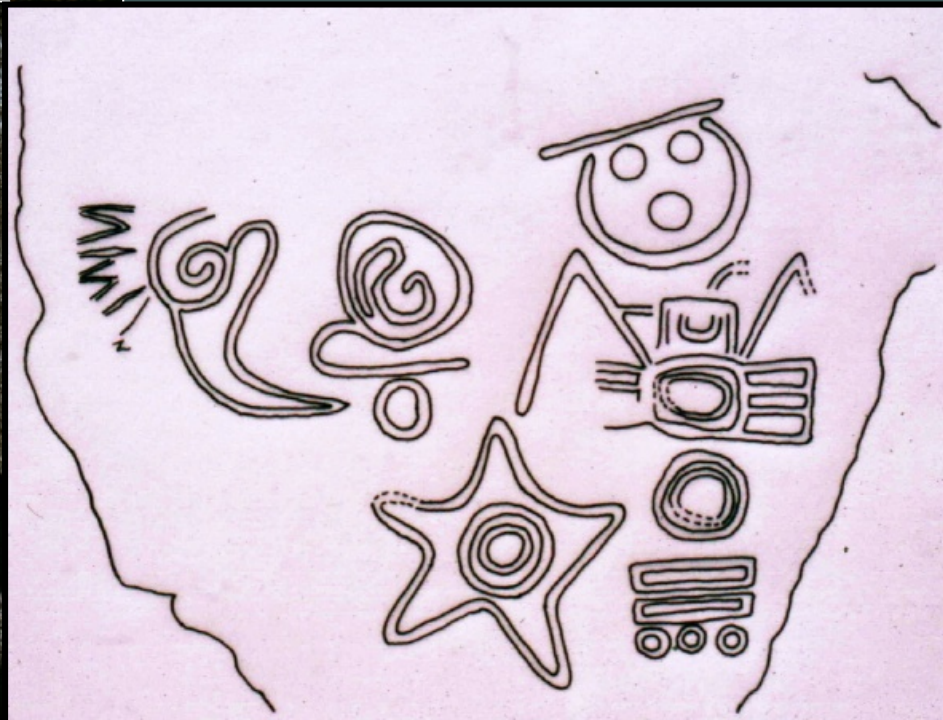


Este año de treze  
cañas y de i s z i b u  
eclipse de sol

COMET SEEN IN 1531 TOTAL SUN ECLIPSE



Xihuingo

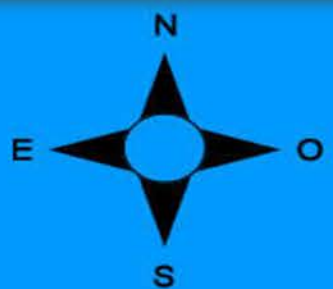


**AN INHERITANCE THAT CONTINUES**



BELICE

OCEANO ATLANTICO



GUATEMALA

Garifunas

Chorti

Tolupanes

Pech

Tawahkas

Misquitos

EL SALVADOR

NICARAGUA

OCEANO ATLANTICO



# PIAJ

- SPYDERS MONKEYS LIVE IN A SKY FULL OF TREES



- TYAJ HAITECAL – VENUS IN THE WEST
- TSIK'IN HAITECAL/PURAK PONEWSWAI – VENUS IN THE EAST



# CONCLUSIONS

- **ALMOST 4000 YEARS OF UNINTERRUPTED ASTRONOMICAL DATA**
- **THEY OBSERVED AND THEY ARE OBSERVING THE MOST SUBTLE ASTRONOMICAL PHENOMENA**
- **THEY KEEP INCLUDING NEW ASTRONOMICAL EVENTS IN THEIR COSMOVISIONS FOR UNDERSTANDING THE ENVIRONMENT**
- **ASTRONOMICAL KNOWLEDGE KEEP SHAPING MESOAMERICAN PEOPLES**
- **WE MUST UNDERSTAND ASTRONOMICAL KNOWLEDGE INSIDE THEIR KNOWLEDGE SYSTEMS FOR UNDERSTANDING THEIR CULTURES**
- **WE REALIZED THAT COSMOLOGICAL, SOCIO-POLITICAL AND KINSHIP STRUCTURES ARE DEEPLY RELATED BETWEEN THEM AND WITH ASTRONOMY**



**THANK YOU**