

It's What You Know:































Literacy, Numeracy,
Calendrics, Medicine, Engineering,
Divination, Art and Magic

AND

How Archaeologists Study The
Evidence for These Kinds of
Knowledge Systems

Elite knowledge and power

- Technical knowledge belonged to craft workers, theoretical or abstract knowledge to elites
- Elite knowledge driven by need to compete for status, maintain social order, supernatural connections, not modern concept of “progress”
- Archaeologists look for evidence of this in technology, construction, and in writing and artwork

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Mayan positional number system				

Specialized knowledge

- No distinction between “science” and “religion”
- Written records that survive focus on astronomy, medicine, divination, other interventions with the supernatural
- Archaeological record also suggests engineering, metallurgy, agriculture, geography ...

Education

- Access: who could go to school
- Mode: training, apprenticeship, memorization
- Often associated with the royal household, or at least administrative centers
- Key to literacy, where writing developed

And so it is written:

Harappan

- Did writing enable new forms of thought?
- Did writing alter culture? (literate vs. oral cultures)
- What constitutes “writing”?
- What other forms of knowledge storage existed?
- Recording speech vs. recording ideas
- Logography: A method of writing in which whole words or syllables, cast as single types, are used

Functions of writing


- Commemorating kings and their deeds
- Administrative tasks, especially related to property
- Religious purposes, including divination

"The final version of the Hieroglyphic Stairway was built by Ruler 13 [18-Rabbit or Waxaklajun Ub'ah K'awil], not, as we and others had believed, in the years following his death. In re-modelling this ancient and revered edifice to honor the memory of Ruler 12, Waxaklajun Ub'ah K'awil felt compelled to compensate for burying Stela 63, and the Papagayo step, by creating a much more complete record of the city's dynastic history. In this innovative effort, he cited the birth, accession to power, important rituals and other achievements, parentage statements, and death of the most distinguished rulers in the city. Special interest was focused on his long-lived predecessor, Ruler 12.

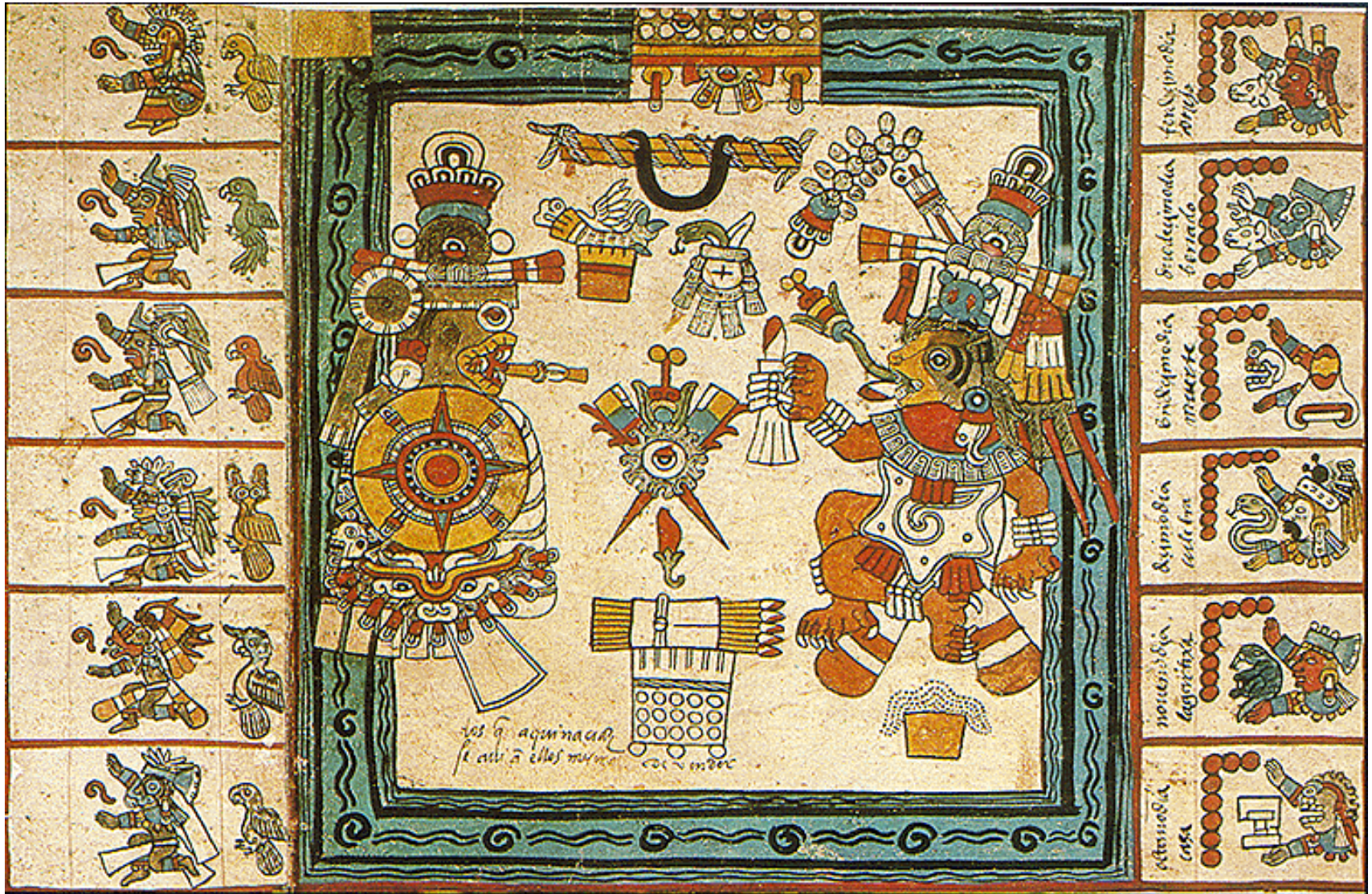
Ruler 15 [Smoke Shell, whose stela stands at the foot of the stairway] subsequently doubled the length and historical content of the stairway inscription, and was likely also responsible for creating the balustrades that framed it. It was he who dedicated the final version of the temple of Structure 26, with its impressive temple façades, roof crest, and extraordinary interior inscription."

William L. Fash, *Scribes, Warriors and Kings: The City of Copán and the Ancient Maya*, p. 144-146

Other modes of knowledge storage

- Semasiography: pictograms and ideograms Metonymy: substituting the name of an attribute or feature for the name of the thing itself (as in `they counted heads')
- Rebuses: substituting a picture for a word that sounds the same:
- an  for an "I"

Example: Aztec texts



Writing and statecraft:



- Useful, but not necessary: quipus in Inka; semasiography in case of Aztec
- When present, linked to other forms of specialized knowledge: divination (Shang), astronomy (Maya), mathematics (Mesopotamia)

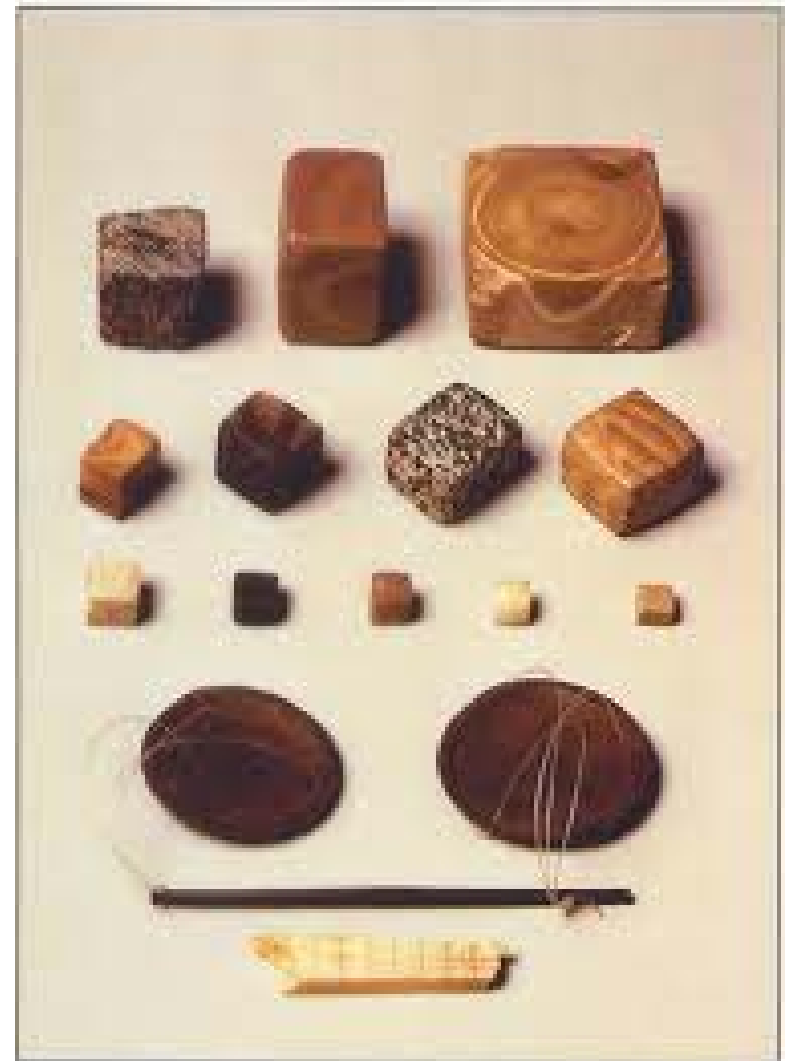


Calendrics

- Annual counts
(accounting)
- Divination
- Tracking astronomical
events
- “King lists”
- Historical accounts

Ethnomathematics and Numerology

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5 —	6 ● —	7 ●● —	8 ●●● —	9 ●●●● —
10 ==	11 ● ==	12 ●● ==	13 ●●● ==	14 ●●●● ==
15 ===	16 ● ===	17 ●● ===	18 ●●● ===	19 ●●●● ===
20 ● 	21 ● ●	22 ● ●●	23 ● ●●●	24 ● ●●●●
25 ● —	26 ● ● —	27 ● ●● —	28 ● ●●● —	29 ● ●●●● —
Mayan positional number system				



Oral tradition

- Histories of lineages, especially royal or elite ones
- Religious or ritual texts, incantations
- Historical events
- Entertainment
- Counter-ideologies (retained narratives from earlier times)

Iconography, Art and Symbolic Analysis

Iconography is “the images and symbolic representations that are traditionally associated with a person or a subject” (OneLook website)
We can add “deity” to the list

In early civilizations, iconography was the “language” of specialized elite art and architecture, and highly standardized stylistically

Repertoire of symbols and images across the culture as a whole was more variable, stylistically (and culturally) “older” in commoner art

Analytical Approaches to Iconography

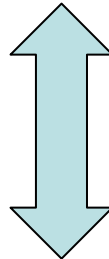
- Functionalist approaches:
“art” helps elites get the message across
- Symbolic approaches:
“art” is a means of communicating
- Aesthetic approaches:
“art” (and stylistic innovation) has its own developmental trajectory, as people experiment and influence each other

A word about stylistic analysis:

- “Horizon”: the set of styles, symbols, or elements that are popular at a particular moment in time; what’s ‘trendy’

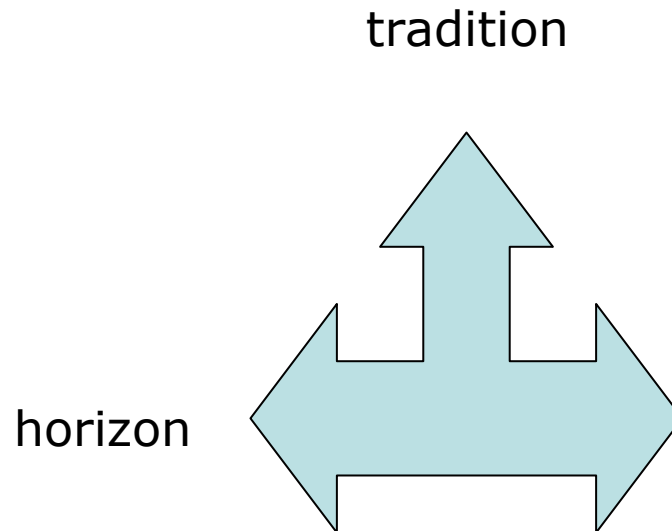


- “Tradition”: the linked sets of styles, symbols, techniques, and iconographic elements that have developed over time in a single cultural area (or related areas)



Stylistic analysis looks at both:

What was popular at ONE given time, and
how did everything change OVER time



Art, Artworks, and Artists

- Most surviving elite art 'anonymous', and team-produced
- No 'art for art's sake' per se
- Sponsorship, patronage key to the stylistic developments: low state power, slower change; periods of high state power saw more innovation, change
- "Ownership" of art also not 'for art's sake': symbols of power, wealth, or supernatural connections

Great Traditions

- Grew from earlier antecedents
- Became increasingly elaborate as social hierarchy increased
- Produced by highly skilled craft workers
- Often involved specialized knowledge, rare/costly materials, or both
- Very rule-based and stylistically uniform and conformist
- Sometimes publicly visible, sometimes not

Little Traditions

- Made by nonspecialists, but still by practiced craftspeople
- Most often out of common materials
- Often decorating common, everyday items
- Can give valuable info about everyday life
- Tend to be less changeable over time, more variable over space than GTs
- Links between great and little traditions have been used to reconstruct/get insight into vanished GTs (eg. Maya symbology, Chinese motifs, etc)

Monumental Architecture

- Limited to a few types of buildings: temples, palaces, tombs
- Styles varied, but “learning curve” is evident always: engineering tek evolves along with styles
- Analyzed in terms of energy and resource costs, as well as style