

Materialising the Sky

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February 2018



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“The way we act affects both society and the web of life around us. **Our actions are determined by what we think, by our values and belief systems.** These in turn are actualised and reinforced by our education through various aspects of our culture, and by means of ritual activity.”

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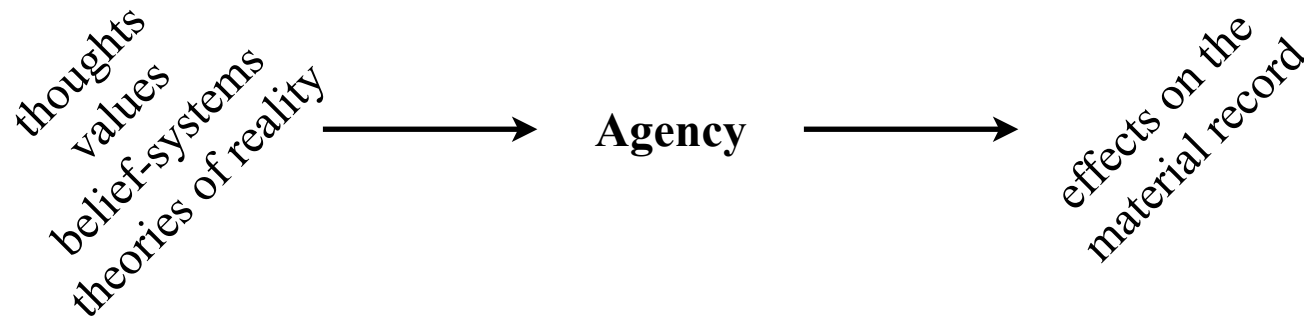


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Cosmology
Ontology



Agency



**Archaeological
Record**



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Agency is the **mediator** between cosmology and ontology and the built environment. Therefore, through agency, worlds (ontology) and/or world-views (cosmology) influence **how people create, manipulate and interact** with material culture as well as the natural and built environment.





But how is this materialised?

How have cosmology and ontology been encoded in material culture?

Three Classes of Examples from Archaeology:

Spatial Structure

Orientation

Art

Spatial Structure

“is now seen not merely as an arena in which social life unfolds, but rather as a medium through which social relations are produced and reproduced.”

M Parker Pearson and C Richards (1994) *Architecture and Order: Approaches to Social Space*, p.2-3

Spatial Structure I

THE BERBER HOUSE OR THE WORLD REVERSED

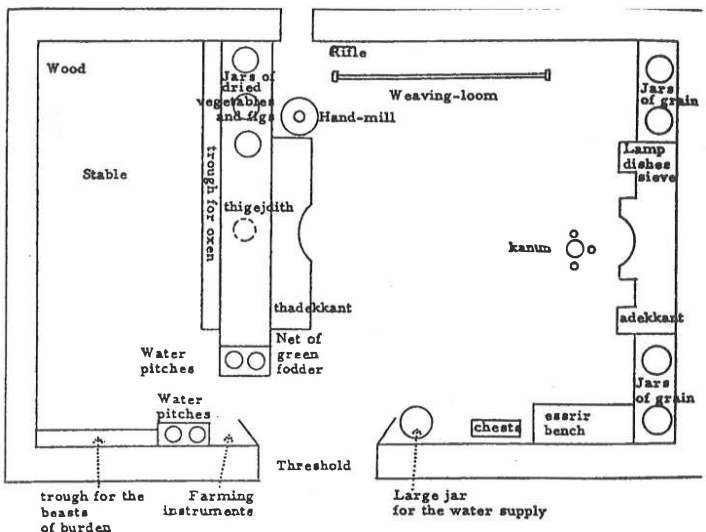


Figure 29.1 Plan of the house

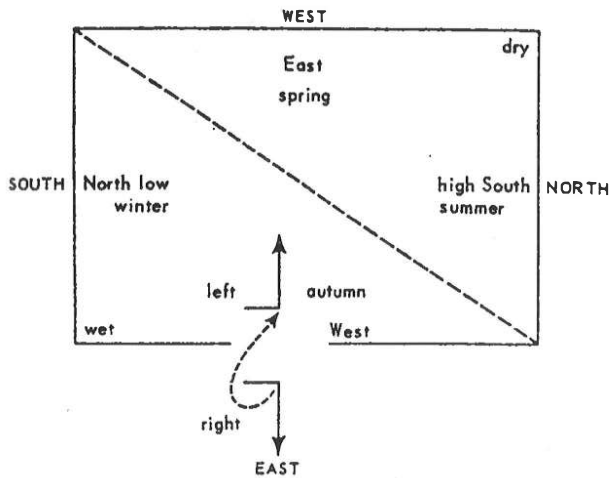


Figure 29.2 The double space orientation of the house (The right-angle arrows indicate the person's positions)

“Thus the house is **organised according to a set of homologous oppositions**: fire:water, light:shadow, day:night, male:female [...]. But in fact **the same oppositions exist between the house and the rest of the universe.**”

P Bourdieu (1970) *The Berber house or the world reversed*, p.496-7

“As a **microcosm** organised according to the same oppositions which govern all the universe, the house maintains a relation with the rest of the universe which is that of a **homology**”

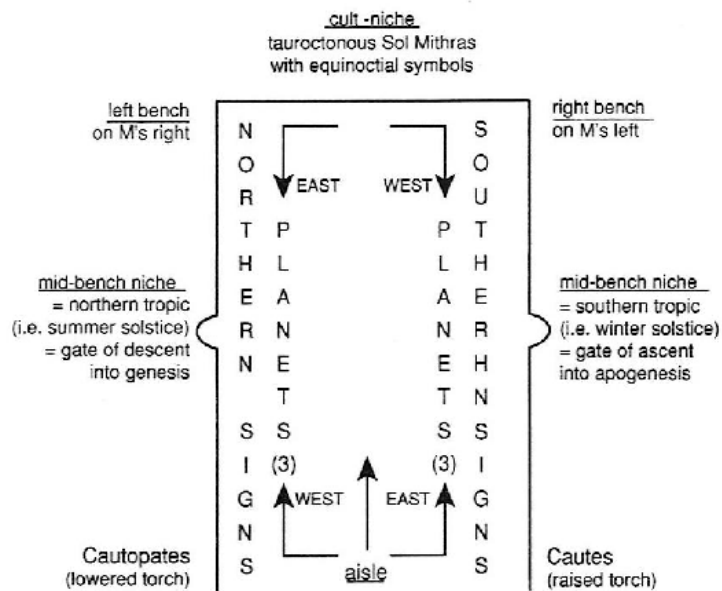
P Bourdieu (1970) *The Berber house or the world reversed*, p.498

Available online:

<http://journals.sagepub.com/doi/abs/10.1177/053901847000900213>

Spatial structure, whether of landscape or architectural features, can mirror the structure of the cosmos as a whole.

Spatial Structure II

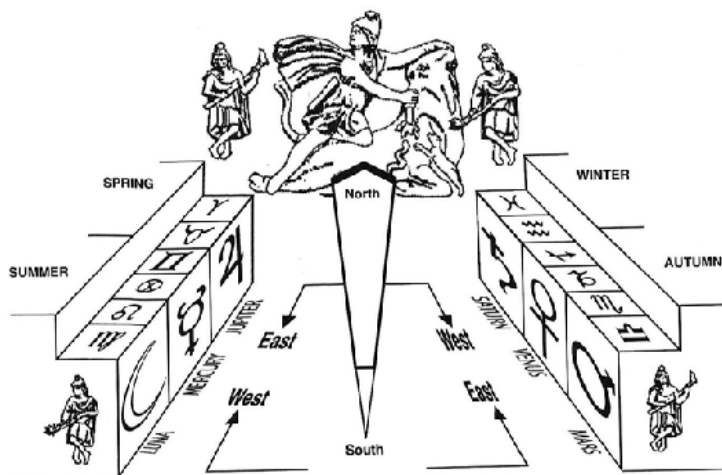


“the Persians call the place a cave where they introduce an initiate to the mysteries, revealing to him the path by which souls descend and go back again [...] This cave bore for him **the image of the Cosmos** which Mithras had created, and the things which the cave contained, by their proportionate arrangement, provided him with **symbols of the elements and climates of the Cosmos.**”

Porphiry, De antro nympharum 6

for more on this topic see

R Beck (2006), The Religion of the Mithras Cult in the Roman Empire.



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Orientation

“The direction of an object from a given position.”

T Darvill (2009) *Oxford Concise Dictionary of Archaeology*.

Orientation I



“...temple orientations with the main gate located in front of (axis perpendicular to) the Nile is the **most common way of orientating the buildings**. Furthermore, axes nearly parallel to (at $\sim 0^\circ$ or 180°) or perpendicular to the river, but facing the other way ($\sim 270^\circ$), were also common. This demonstrates beyond any reasonable doubt that **local topography (the course of the Nile)** was **very important at the moment of laying the foundations of the temples.**”

JA Belmonte and M Shaltout (2009), *In Search of Cosmic Order: Selected Essays on Egyptian Archaeoastronomy*, p.222

Orientation can reflect important relations to the cosmos.



Orientation II

“[...] the temples of the immortal gods should have such an aspect, that the statue in the cell may have its face towards the west, so that those who enter to sacrifice, or to make offerings, **may have their faces to the east as well as to the statue in the temple.** Thus suppliants, and those performing their vows, seem to have the temple, the east, and the deity, as it were, looking on them at the same moment. Hence all altars of the gods should be placed towards the east.”

Vitruvius, De architectura 4.5.1

Orientation can reflect important relations to the cosmos.



Orientation II

“St. Augustine, considering the opening of the Lord’s Prayer, “Our Father, Who art in heaven” (Matt. 6:9), maintained that worshippers should always face east at prayer. ”

“In his twelfth-century *Gemma animae* (cap. 95), Honorius of Autun gave three reasons for turning eastward to pray. First, he noted that **Paradise, from which humankind had been expelled, is in the east** and we pray to return there. Second, he presented a version of the argument seen in Augustine, that the light of day rises in the east and we pray in that direction **to adore Christ, who is the East** and the True Light. Thirdly, the Sun rising in the east **portrays the rising of Christ**, the Sun of Justice.“

SC McCluskey (2015) *Orientation of Christian Churches in*
CLN Ruggles, ed (2015) *Handbook of Archaeoastronomy and*
Ethnoastronomy, pp.1703-1710 (p.1705)

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Orientation III



The Qur'an advocates prayer toward the Kaaba in Mecca: "Turn then thy face in the direction of the sacred mosque: wherever you are, turn your faces towards it" (II.144).

"For Muslims it is a **physical pointer** to the presence of God. [...] Mosques are built with the prayer wall facing the Kaaba, the direction being indicated by a *mihrab* or prayer niche. In addition, certain ritual acts, such as reciting the Qur'a'n, announcing the call to prayer, and slaughtering animals for food, **are to be performed facing the Kaaba**. Also, over the centuries, Muslim graves and tombs were laid out so that the body would lie on its side and **face the Kaaba**."

DA King (2015) *Astronomy in the Service of Islam* in CLN Ruggles, ed (2015) *Handbook of Archaeoastronomy and Ethnoastronomy*, pp.181-198 (p.189)

Orientation can reflect important relations to the cosmos.

Rock Art

“any artificially created mark that is cut, engraved, incised, etched, gouged, ground or pecked into, or applied with paint, wax, or other substance (organic or mineral) onto, a rock surface.”

T Darvill (2009) Oxford Concise Dictionary of Archaeology.



Tanum, Sweden :: Bronze Age

To solheste er klar til at trække solen bort fra skibet.

Two sun horses are ready to pull the sun away from the ship.

Fisken fortæller af en rovfugl, Solheste (de S-formede figurer) er klar til at overtage solen på deres videre færd.

The fish is then consumed by a bird of prey. Stylized sun horses (the S-shaped figures) are ready to take the sun on its further journey.

Ved middagstid trækker Solhesten solen fra skibet.

At noon the Sun Horse pulls the sun away from the ship.

Om eftermiddagen lander Solhesten med solen på Solskibet.

In the afternoon the Sun Horse lands with the sun on the Sun Ship.

Nogle timer efter at Solhesten er landet, bliver solen hentet af slangen fra eftermiddagsskibet.

A few hours after the Sun Horse has landed, the sun is fetched by the snake from the afternoon ship.

Ved solnedgang skjuler slangen solen i sine spiralkrøller. Slangen vil lade solen ned under horisonten.

At sunset the snake hides the sun in its coils. The snake is about to take the sun down below the horizon.

To natkibe sejler mod venstre, solens retning om natten. Solen ses ikke, den er skullet og mørk under sin rejse gennem underverdenen.

Two night ships sail to the left, the direction of the sun at night. The sun cannot be seen; it is extinguished and dark during its journey through the underworld.

Middag
Noon

Solopgang
Sunrise

Solnedgang
Sunset

Midnat
Midnight

Solopgang. Fisken trækker solen op fra natkibet til morgenskibet.

Sunrise. The fish pulls the sun up from the night ship to the morning ship.

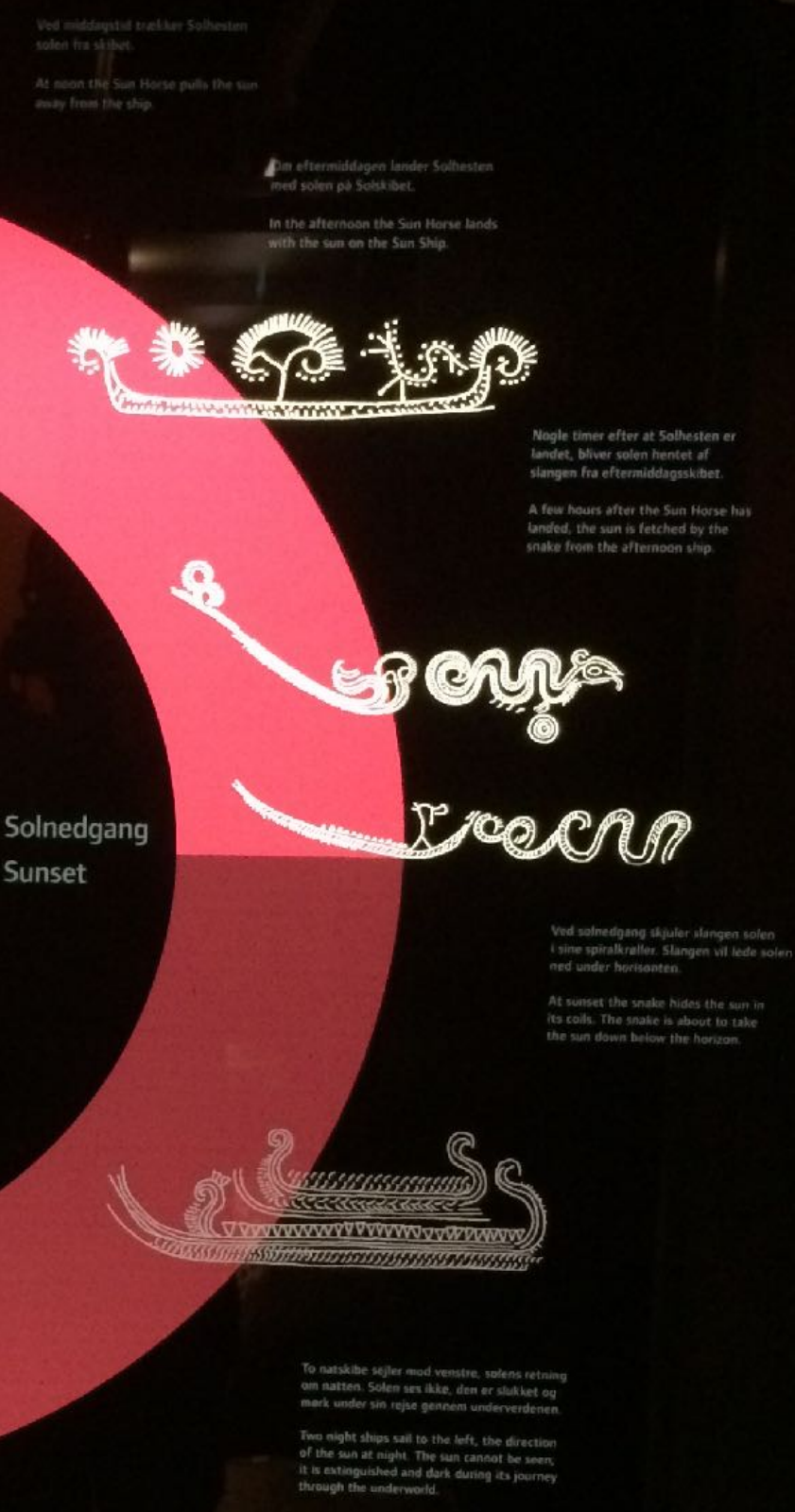
Gennem natten rejser solen bliver skibet fulgt af en fisk, der svømmer mod venstre. Fisken er nu klar til at udføre sit løb ved morgengry. En ny dag vil snart begynde.

Throughout the night journey the ship is accompanied by a fish that swims towards the left. The fish is now ready to perform its task at dawn. A new day will soon begin.

Solens rejse

The journey of the sun

Art



“While many singular motifs have been identified as belonging to the sun journey, such as the horse pulling the sun, few attempts have been made to reconstruct from the many rock art scenes those who **thematically belong together by retelling a myth** [...]”

“I have exemplified the various stages in the myth of the journey of the sun, as [...] **represented not only in rock art but also in figurines, iconography, hoards and burials.**”

K Kristiansen (2012) *Rock Art and Religion: The sun journey in Indo-European mythology and Bronze Age rock art*, p.73, 80

Available online:

<http://www.rockartscandinavia.com/images/articles/a12kristiansen.pdf>

Art, whether mobile, perennial or permanent, can represent ontologies and cosmologies.



The examples given demonstrate a few ways in which cosmology and ontology inform material culture. Hence, they are also examples of how to work backwards: from the material culture to the cosmologies or ontologies of the society being studied.

Case in point 1: K Kristiansen identified patterns in Scandinavian rock-art and, from them, reconstructed the sun-boat journey, which is known from later Indo-European myth.

Case in point 2: Patterns in orientation and spatial structure can reveal meaningful relations between landscape, skyscape and a community.

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Corollary: The archaeological record is always incomplete

See all of the above. Furthermore, excavations are always partial. Sites are never fully excavated and recorded

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American Anthropologist 56

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1. Processes that Create Sites and Materials

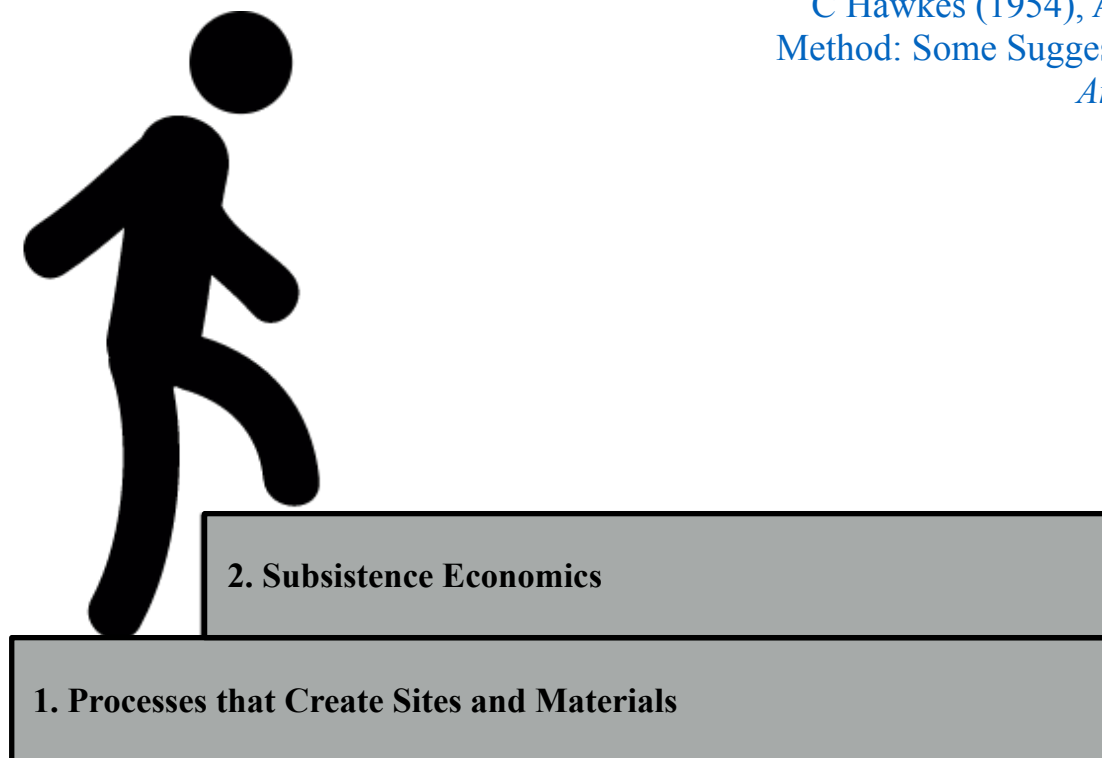
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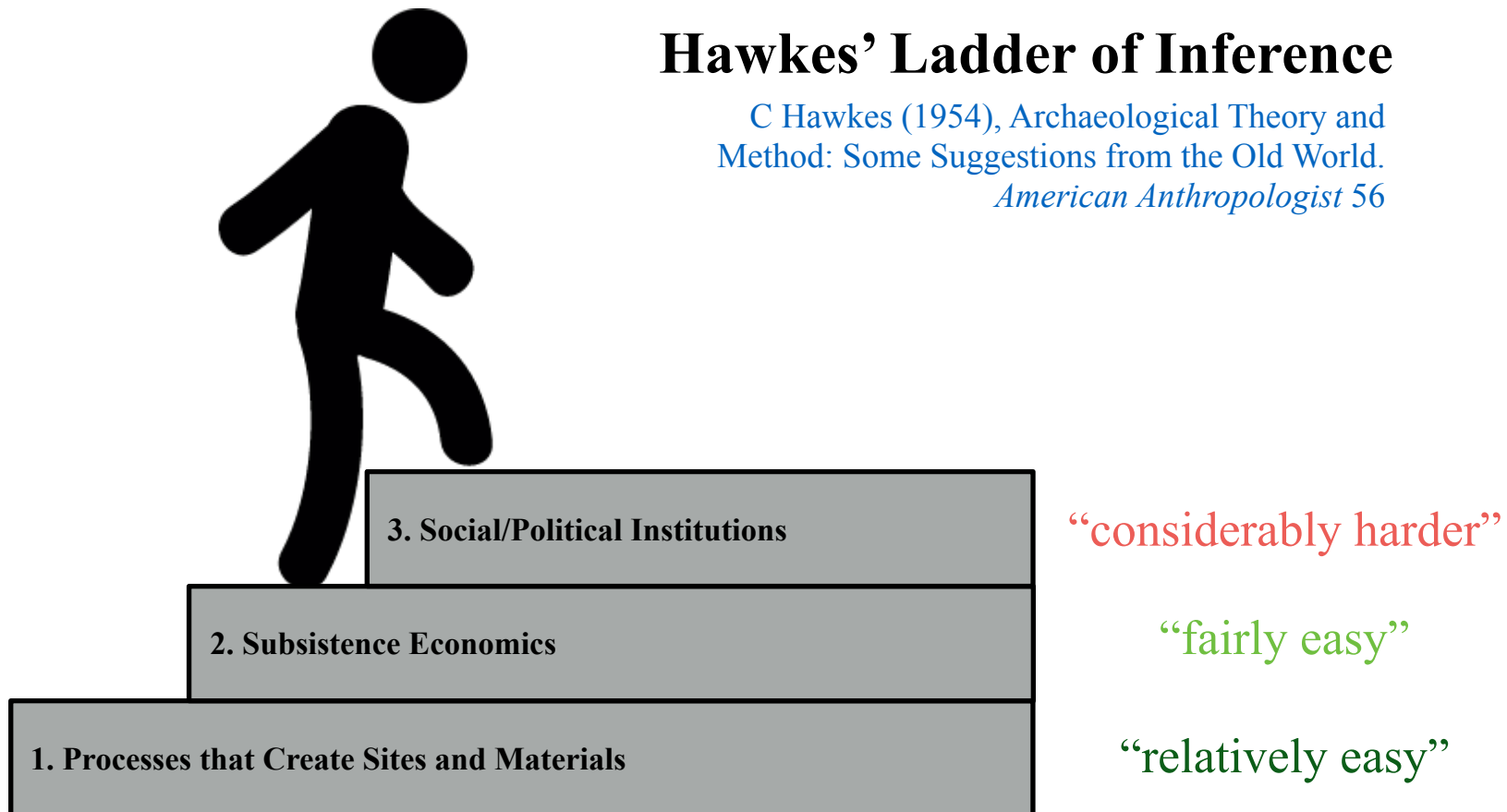


“fairly easy”

“relatively easy”

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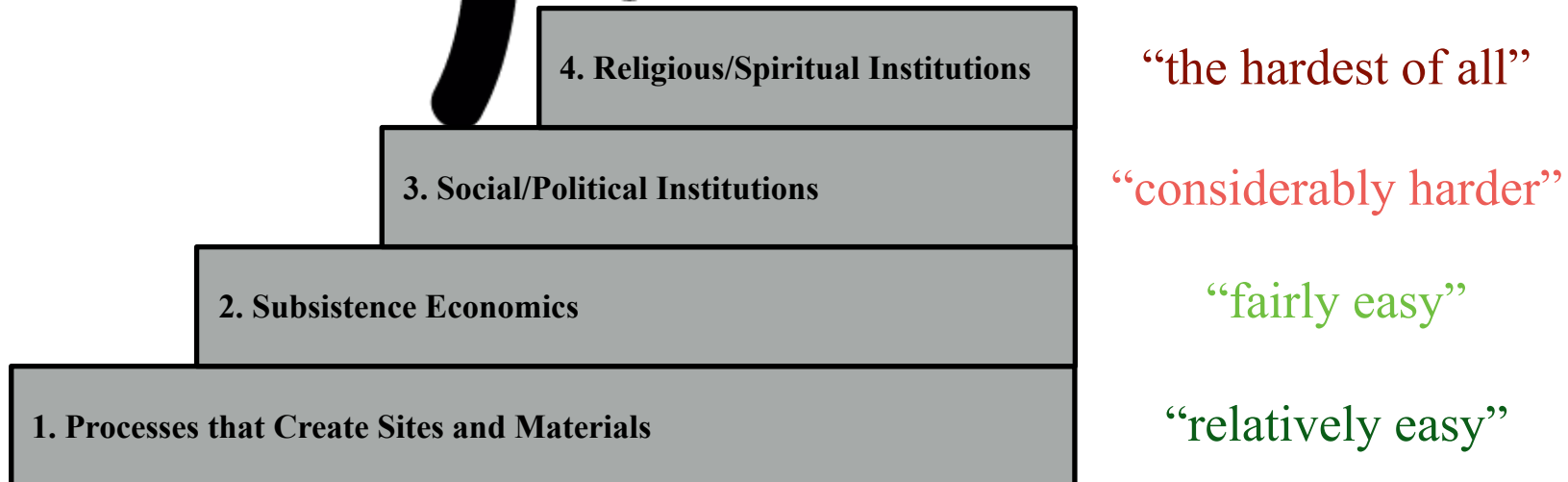
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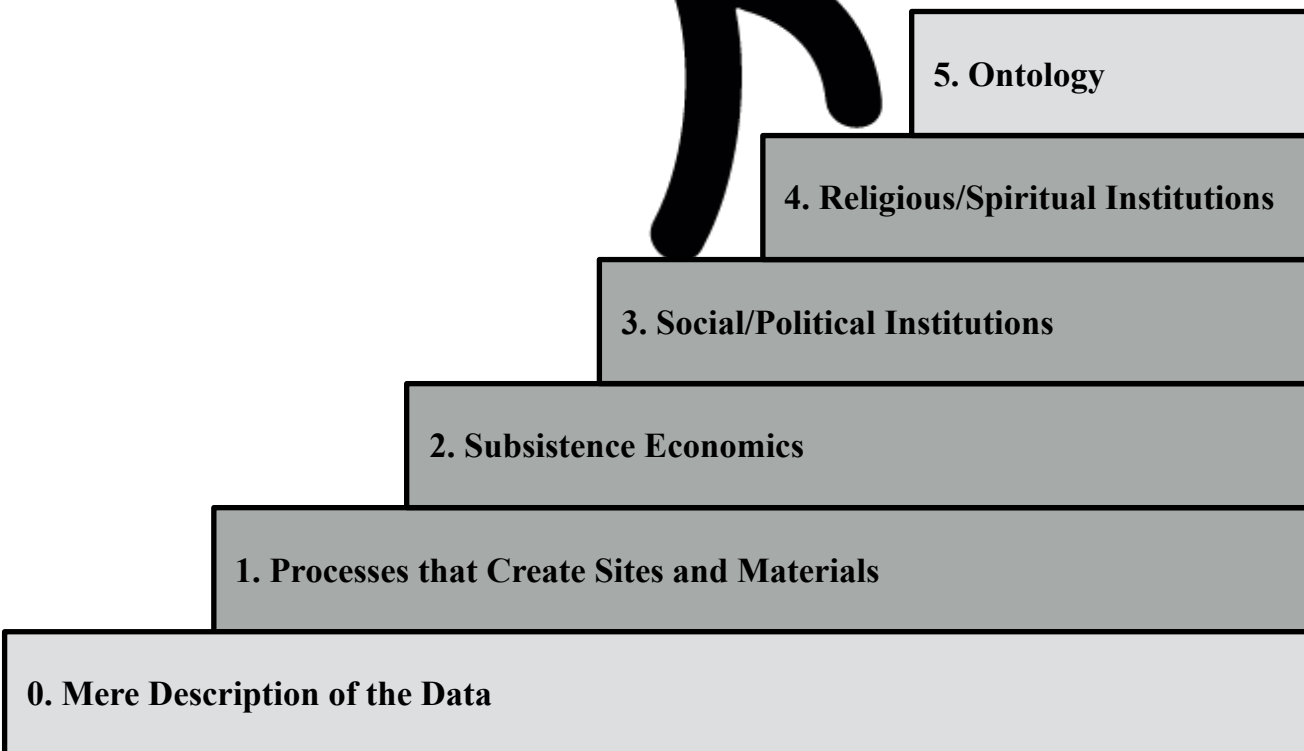


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Hawkes' Ladder of Inference Fabio's modified version

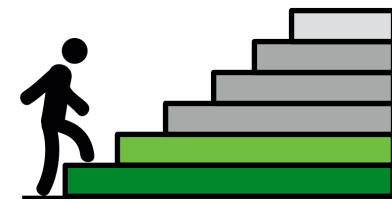


representing the Ontological
turn in the Humanities

the substrate upon which the
scholarly enterprise builds upon

A Brief History of Archaeological Theory

“Classical” Archaeology (pre-1960)



- 5. Ontology
- 4. Ideology/Cosmology
- 3. Socio-politics
- 2. Subsistence
- 1. Site Creation
- 0. Description

Steps out of its antiquarian roots

Excavation was key methodology

Key role was to reconstruct the past

Very descriptive

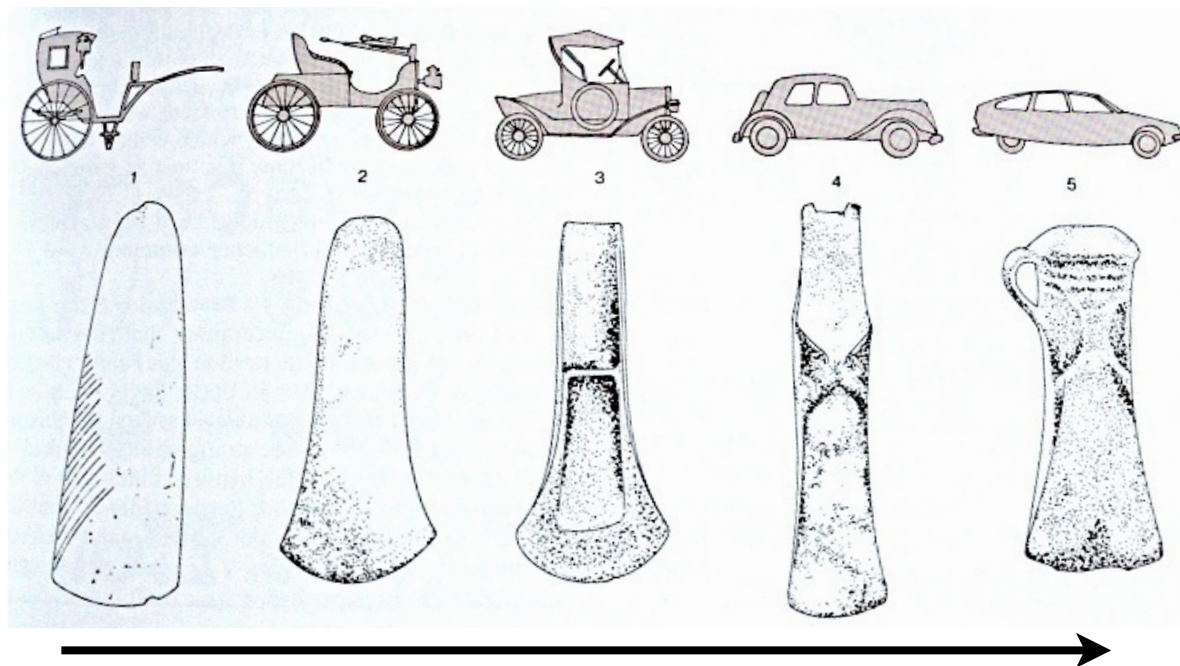
Created and used relative dating techniques, such as typological sequences

Famous representatives:

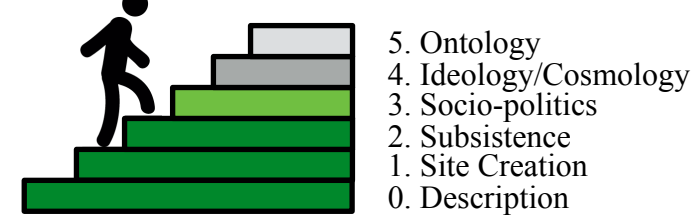
Sir Flinders Petrie (1853-1942)

V. Gordon Childe (1892-1957)

Sir Mortimer Wheeler (1890-1976)



Processual Archaeology (post 1960)



Known at the time as the “New” Archaeology

Appearance of absolute dating techniques

Its birth coincided with the rise of Archaeological Science

An approach that mirrored the Natural Sciences: hypothesis testing, construction of models, question-directed research, generalization

Key role was to *explain* past change via the concept of *culture process*

Material objects were often uncritically coined “religious in nature”, considered uninteresting and left in museum archives

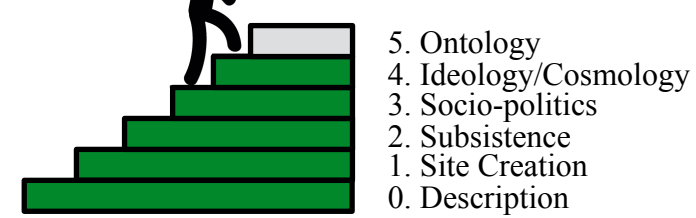
Famous representatives:

Lord Colin Renfrew (1937)

Lewis Binford (1931-2011)



Post-Processual Archaeologies (post 1980s)



Took inspiration from the post-modernist movement

Also known as Interpretative Archaeologies

Espouses different approaches:

- symbolic and structuralist;
- neo-Marxist;
- phenomenological;
- praxis;
- hermeneutic

Key principles:

- no single, correct way to undertake archaeological inference;
- objectivity is unattainable;
- many readings are possible (multivocality)

Focus shifted from change and process to the beliefs and practices, ideologies and cosmologies of societies

Famous representatives:

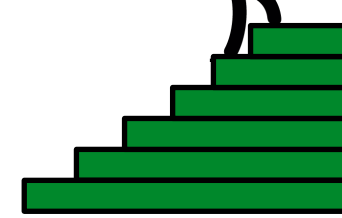
Ian Hodder (1948)

Michael Shanks (1959)

Chris Tilley (19??)



New Approaches and Arenas



5. Ontology
4. Ideology/Cosmology
3. Socio-politics
2. Subsistence
1. Site Creation
0. Description

Present day archaeologists draw their theories and methods from *Processualism*, *Post-Processualism* but also from other fields:

Ethnographic analogy

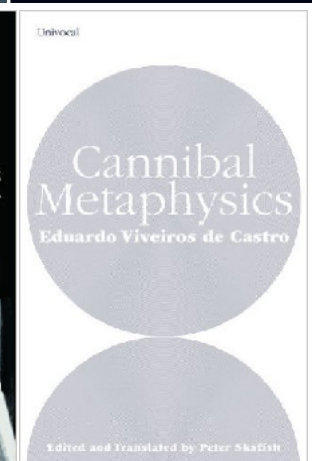
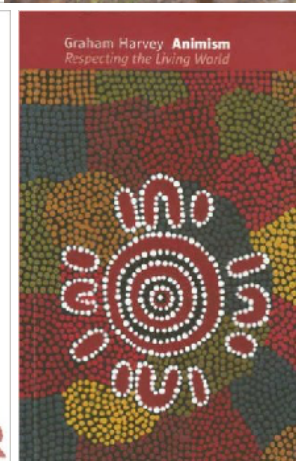
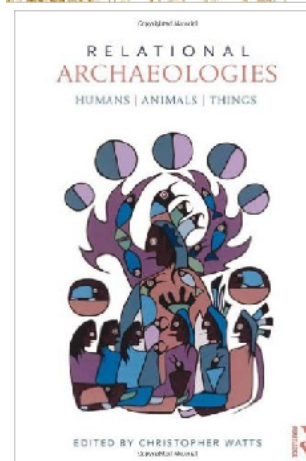
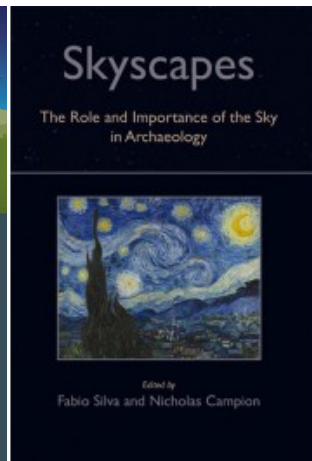
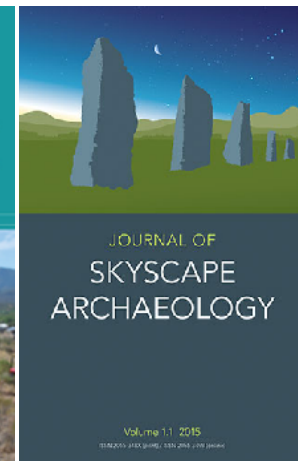
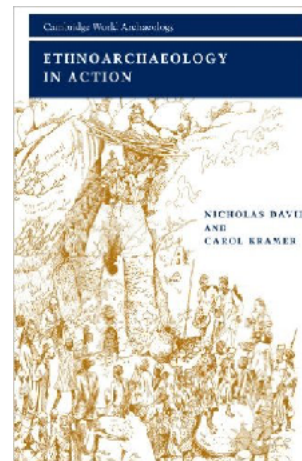
Ethnoarchaeology

Material Religion

Skyscape Archaeology

The Ontological Turn:

- alternate/relational ontologies
- “new” animism
- indigenous theory



The End.