

2022-01-24 - Lecture 03

1.3 *Megaliths and Stone Circles; Building as Memory*

- 1) Architecture as **Second Nature** begins as creating mere **dwelling**... a place of protection from the forces of nature. Soon, building begins to take on more significance as it embodies symbolic and ritualistic meaning, becomes a place of reverence, and becomes a place of memorialization of the dead and the **marking of time of human memory**...
- 2) Vocabulary:
 - **cairn** — burial mound of stones (may have earth on top of stones). British Isles term.
 - **dolmen** — two megaliths (or more) standing upright and capped by a trabeated megalith
 - **menhirs** — raised stones, similar to a stele or gravestone but may have more meaning due to formal attributes of their arrangement
 - **orthostats** — vertical megaliths revetting the lower cella (chamber) of a proto-temple
 - **poché** — in an architectural diagram, the poché is the representation of material that forms space within a building. This is its first meaning. There are more.
 - **revetment** — sloping or battered walls reinforced with stronger material, usually stone
 - **trabeation** — a word that describes a post and lintel structural configuration
 - **trilithon** — a dolmen-type arrangement of three megaliths
 - **tumulus** — burial mound of earth, not necessarily including stone (but may)
 - **vernacular** — a building tradition based on tradition rather than formal education. May be based more on local programmatic needs (bank barns, tobacco barns, dogtrot houses), availability of materials, and traditions of building rather than any formal ideas. Vernacular architecture *rarely* has a known architect.
- 3) Examples of stone arrangements for memory and for celestial understanding:
 - **Carnac**, Brittany, France. **Fields of menhirs** — 4000 - 2500 BCE. Neolithic. Arrangement of stones has more "design" to it than only marking locations in a field (as a gravestone does). The various arrangements in the various fields include varying height of the megaliths, and different geometrical arrays. The variations suggest formal qualities of occupying the space and enclosure.
 - See images for several varieties of **dolmens**.
 - **Cairn** tomb-like arrangement in **Barnenez**, Brittany, France — 4500 BCE. Neolithic. The cairn is below a larger mound and features a centralized cone-like corbeled sacred place. The passageway inside is lined with *orthostats* which support megaliths making a structural roof. Several stacked-stone walls form a framework which is infilled to create the general mound.
 - **Newgrange**, Ireland — 3000 BCE. Neolithic. **The greatest of the Irish cairns**, employing orthostats, a place of arrival at the entry, a transomed window for lighting, carved stones at the entry, and a long corridor leading to a cone-shaped and corbeled sacred space deep under the mound. It is a cairn - also known as a tumulus. May be thought of as a *proto-temple* form as the architectural features are clearly sophisticated and self-conscious.
 - **Hagar Qim**, Malta — 3600 - 2500 BCE. Neolithic. Clearly memorializes the dead and creates sacred space in a sequence of oval chambers built as a cairn. The interior chambers begin axially and then branch out to one side. Smaller shrine-like spaces branch off as well. Concave entryway with public space out front and seating benches. An outer wall surrounds the collection of inner chambers, and the material thickness between inner and outer can be thought of as poché. Purpose: memorialization // promote fertility // provide sanctuary
- 4) More examples of especially stone arrangements and henges in England that suggest a move toward **celestial understanding as part of the human ritual of memory**.
 - **Castlerigg** — Northern England (Cumbria) near Scottish border — 3200 BCE. Neolithic. A mysterious precedent to Stonehenge. Original arrangement of 42 stones in a circle flattened on the northern edge, perhaps as an entry. On a treeless moor.
 - **Avebury** — Near Stonehenge — 3000 BCE. Neolithic. A large ring of earthwork and ditch about 1400 feet in diameter with a ring of 98 stones (original number) just inside of that, and two smaller rings of stones each about the size of a football field. A nearby pathway led to nearby Silbury Hill, the largest artificial mound in ancient Europe, in the form of a stepped pyramid. Avebury clearly **too large in scale** to be associated only with honoring the dead.
 - **Stonehenge** — Salisbury Plain in the south of England — 3000 -1500 BCE. Neolithic.

This ancient monument went through several periods of construction over nearly two thousand years. Its first two stages (500+ years) consisted of an outer ring and ditch of earthworks, with an added ring of Aubrey Holes, and a ring of timber and lintels (a woodhenge) just within the earthwork and the megalith to date - the **Heelstone**.

Third phase: possibly 800 years after the initial effort, a ring of bluestone megaliths were placed which focused on the **Heelstone**, now moved to mark the sunrise on the **Summer Solstice**.

Fourth phase: perhaps two hundred years later, the gigantic sandstone piers known as **sarsens** were placed in an outer ring numbering 30, with a lintel spanning every pair of sarsens using sophisticated mortise // tenon joinery. Sarsens were dressed (shaped) to adhere to the curvature of the circle. A horseshoe-shaped element of five pair of even larger stones (these arrangements are known as **trilithon** as each was composed of three stones) and they were faced toward the Heelstone. Like a gunsight, the rising sun on the Summer Solstice would first appear from behind the Heelstone, framed perfectly between a pair of sarsens, and directed toward the center of the horseshoe of trilithons.

Fifth phase: About 1600 BCE, more of the smaller bluestones arranged in circles inside the horseshoe of trilithons as well as outside the sarsens. An altar was placed in the center of the horseshoe of trilithons.

By this time, Stonehenge clearly was a sort of temple. Its beginnings seem to suggest memorialization, and its later stages indicate a **connection to celestial movement** and the understanding of a moving universe. The temple expressed a certain authority and power through its rebuilding.

- 5) Video from YouTube suggests a way that gigantic stones could have been moved by far fewer numbers of people than earlier thought.
- 6) The Indus River Valley - City without monuments
 - Indus // Saraswati River valleys in modern-day Pakistan
 - Two ancient cultures developed along the Saraswati River:
 - The **Harappa** and the **Mohenjo-daro** — approximately 2500 - 1600 BCE
 - These two cities developed without any evidence of monuments, or other authoritative building types. No temples, no palaces. Remains somewhat a mystery.
 - The Harappan Culture and the Mohenjo-daro Culture developed as nearly utilitarian cities as can be ascertained, leaving ruins that only harken to water management, drainage, grain storage, organized public spaces.