



# Monuments and their Consequence on Culture & Scholarship

Scott Aker<sup>1</sup>

<sup>1</sup> MS, MArch, Architect, Stuart Weitzman School of Design, University of Pennsylvania, USA

## Abstract

*All monuments have a dynamic and complex relationship with time, place, culture, and scholarship. The root of monument architecture, and the earliest known human made structure, are the pre-history megaliths located along the coastlines of France and England. This paper traces back a 100-year historical thread of text and drawings made on megaliths by explorers and scholars such as LT S P Oliver (1879), Edgerton (1944), Hawkins (1966), and Service & Bradbery (1979). Recent scholar on megaliths constructs our "modern" understanding of these mysterious stones. The central framework for this paper positions monuments as "metaphorical mirrors of culture", with each megalith scholar informs the next and builds upon a "story," searching for an explanation as to why these stone monuments remain with consequences on culture and scholarship.*

**Keywords:** Monuments, Culture, Scholarship, Architecture, Drawings, Structure, Megaliths

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## 1. Introduction: Memorial and their Consequences on Culture

What is the motivation of monuments and their consequence on culture? A central theme in this paper is the idea that monuments are a "metaphorical mirror of culture," a specific reflection of a contextual time period in which scholars are looking back in time at the monument artifacts. By focusing on the oldest monuments constructed by humans, the megalith, this paper argues that monuments concurrently provide insight into cultural history and our current selves. Could it be the oldest monument on earth, the megalith, was specifically constructed to withstand time and wait for our understanding?<sup>1</sup> Perhaps the question is not "why" a monument was built, but "what" value a monument provides to us during this time. Alois Riegl, an Austrian art-historian and philosopher (1858-1905), published (in German) a seminal article titled *The Modern Cult of the Monument: Its Character and Its Origin* (1903), outlining the competing values to be considered when approaching the preservation and conservation of historic structures. Riegl defined three types of monuments: 1) the intentional monument for commemorative value; 2) the unintentional monument arising out of culture by way of a specific field; and, 3) the age-value monument: a structure outlasts other buildings, becomes an artifact. The one monument that fit all three of Riegl's monument categories, the pre-history megaliths.

## 2. Prehistory Monuments: Menhirs, Megaliths, and Stonehenge

The mysterious megaliths, have been found throughout Western Europe, Ireland, France, and Turkey. Stones called Menhirs: The French origin of the word refers to standing stones, a long stone, stake, or post. Although there has been acknowledgment and discussion surround these monuments since they were initially erected, it is not until 1879 that our "modern" interpretation and influence begins. These monuments waited patiently for our engagement, interpretations, and understanding of them which has taken several thousands of years for us to unlock their secrets (Figure 1)

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<sup>1</sup> They are, as Philosopher Nietzsche put it best, a "stamp of the culture". And we know that monuments can be divisive and repressive symbolic forms in a culture. As Robert Musil famous prose on memorials of his time, monuments and society go together "like a drop of water on an oilskin".



Figure 1: Service & Bradbery, *Megaliths and their Mysteries*, Macmillan Publishing, NY (1979)

Aside from the beautiful shapes and mega-size relative to the human gaze, along with the placement of these megalith stones, perhaps our initial appreciation comes from our understanding of how old these structures are from carbon dating, which places the monuments in the context of human history relative to the current time. There are two techniques for carbon dating: 1) testing pollen from plants (age can be established by complete analysis); 2) thermoluminescence: a process that detects the presence in pottery deterioration (at the time a pot is fired, any organic matter containing carbon-14 (radiocarbon), decays gradually from the moment life ceases. By testing the organic matter found close to the mega stones, research has shown some of the oldest menhirs, discovered in France, estimated to be 7000 years old; that is twice the age of the Great Pyramids of Giza..

### 3. Menhirs in their Context; recording, naming and cataloging: (1880s)

Based on myths and stories, serious scholarship on the stone sprung out from a well-traveled British geologist, LT S P Oliver and his re-discovery of the Menhirs. Oliver and his team traveled to the Island of Jersey, France, intending to record prehistoric remains. He initially thought nothing of the large stones on his first trip, only for the British government to send him back for a second look at the megaliths. On Oliver’s second trip, he returned with a documentation package naming, cataloging, and elemental mapping of the stones on a series of plates, which was the scientific trend for many colonial explorers at the time. Charles Darwin’s 1837 publication on the “Transmutation of Species” and in 1860, “The Origins of Species” evolution theories were well circulated among scientists. Like many of the anatomical drawings circulating in London, Oliver offers us an x-ray look at the bones of these stone monuments (Figure 2). The section drawings imagine how these mega stones may have been constructed and the underpinned soil foundation. Oliver’s catalogue and documentation of megalith typological drawings were kept in excellent condition by the British government, allowing for future researchers who would revisit the subject 100 years later.<sup>2</sup>

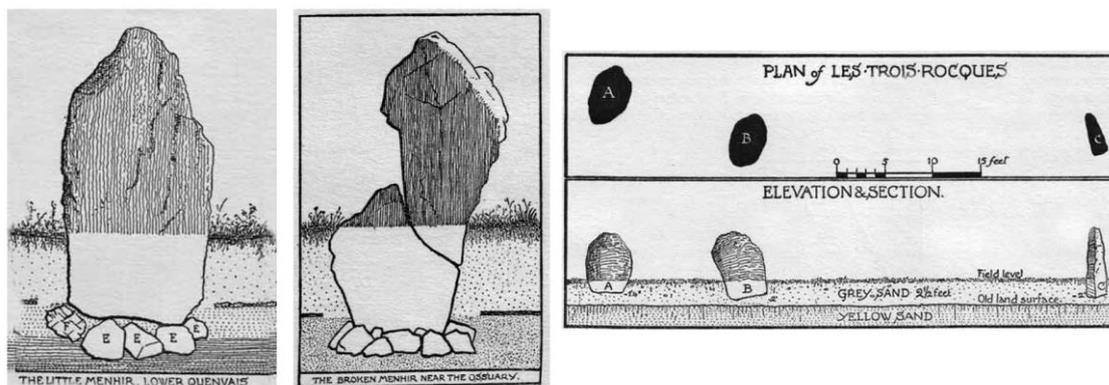


Figure 2: Lieutenant S P Oliver for instance, in his report *On the Prehistoric Remains of the Channel Islands* (1879); Illustrators A D B Godray and Father Christian Burdo

<sup>2</sup> Although there is no specific mention of Darwin by S P Oliver, given the fact they were both located in London during the 1850’s suggests a potential connection between S P Oliver’s drawings and the scientific illustrations found in Charles Darwin’s, *On the Origin of Species*, London (1859).

#### 4. Megaliths as Ecological Markers: a monument with an ecological message: (1970s)

Our most recent analysis comes from two scholars who excavated the Oliver’s archives of megalith drawings to form a global connection to these stones. In the late 1970’s Alastair Service (a British Architectural scholar), and Jean Bradbery (British artist known for her ecological drawings on plants and animals) assembled Oliver’s drawing plates. Like pieces of a puzzle, a larger framework formed. In Service and Bradbery’s book, “Megaliths and their Mysteries”, the two scholars mapped and layered information to discover patterns and draw logical conclusions based on the data (Figure 3). They discovered that many of the menhirs exist along edges of coastlines, and between the boundaries of ancient farmlands.<sup>3</sup>

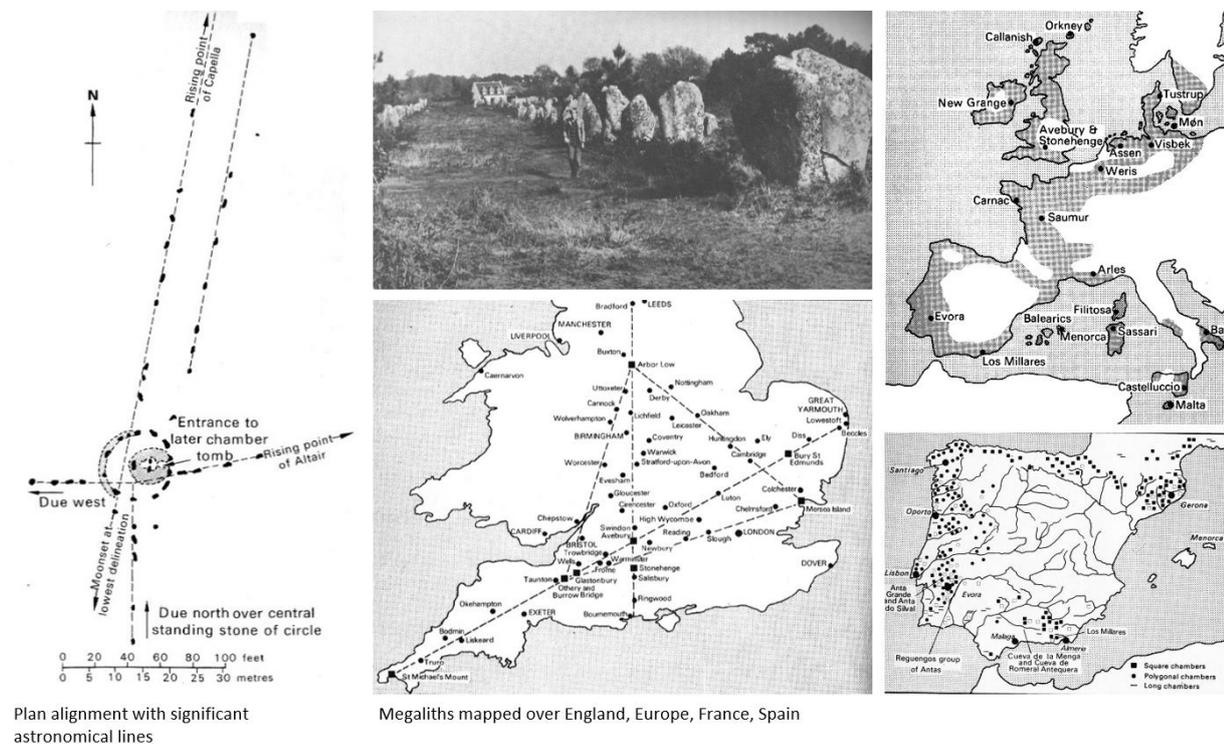


Figure 3. Service & Bradbery, *Megaliths and their Mysteries*, Macmillan Publishing, NY (1979)

In the time of pre-GIS data mining, the large scope of maps made by Service and Bradbery suggest a continuity between the placement of all the stone, which are represented as small dots on a large map. Their analysis is clear, by placing megaliths in connection with their ecological context overlaid the terrain we can now extract information and understanding at a new context, informed perhaps by the ecological "whole earth catalogue" movements in the 1970s. The whole earth catalog was a movement in the 1970s that aimed to find new ways of representing conditions on earth and understanding complex networks and systems. The “ecological menhirs” – maybe seen individually, but collectively, as an interconnected constellation, formed a network of sophisticated geotechnical information of the surrounding ecology.

The megalith stone in the 1970’s takes on a characteristic of a *global context with local alignments*. Led by Service and Bradbery who push their theory and understanding of these monuments through a series of maps, demonstrating the idea that megaliths are coastal wayfinding devices – global to local connections; for farmers and sailors across Europe, Portugal, England, and France; suggesting that perhaps some of the sailors were commissioned by the farmers to install the menhirs, connecting farmers and traders together. Carbon dating reinforced this conclusion – old stones found on coastlines, and newer stones found around the formation of “tomb like vaults”.<sup>4</sup> Close examination of the megalith stones textures are published in 1960s-1970s with archeologist (Henshall 1963) and (Burl 1976).<sup>5</sup> Through the analysis of hand drawings (and some photographs), their research concluded the megaliths were used to inscribe graphic information to others. They discover on the stones,

<sup>3</sup> (Service & Bradbery, 1979, pp. 15-19)

<sup>4</sup> (Service & Bradbery, 1979, pp. 23-24) Carbon dating proved this point; misconception that these structure were for funerary purposes, but some archaeologist (Alexander Thom, Professor of Engineering at Oxford University) argues the purpose could have been used as lunar observatories.

<sup>5</sup> Henshall, A.S., *The Chambered Tombs of Scotland II* (1963) & Burl, Aubrey, *The Stones Circle of British Isles* (1976)

markings, patterns, and symbols with half-moon shapes and stars. It is interesting to note the close examination of the stones by (Burl and Henshall) did not find any inscription regarding a culture concern with violence, weaponry and warfare. The only inscriptions on these stones related to the environment and perhaps the cosmos.<sup>6</sup>

### 5. Megaliths and the Space Race: (1950-1960s)

Arguably the real breakthrough that captivated culture to the importance of these monuments came from a young scholar, Gerald S. Hawkins, a decade before Service and Bradbery’s ecological analysis. Hawkins (a former astronomer at the Smithsonian Astrophysical Observatory in Cambridge, Massachusetts) spent most of his free time during the decade-long space race to examine Stonehenge with the hope of decoding its secret. As he states in the introduction of his book, he was far less concerned with the history of the stones but more interested in the functional operation of the monument as a machine.<sup>7</sup>

It took an astrophysics’ mind to unlock the logic of the megaliths. Hawkins’s seminal 1966 text, "Stonehenge Decoded," used his astronomy education – of earth, space, and sky to decode the monument through geometrical analysis and telephoto camera. He brought a fresh look into the field of menhir/megaliths study, specifically the 3000 BC constructed Stonehenge, by juxtaposing still framed photographs with geometric diagrams illustrating movements of celestial bodies.

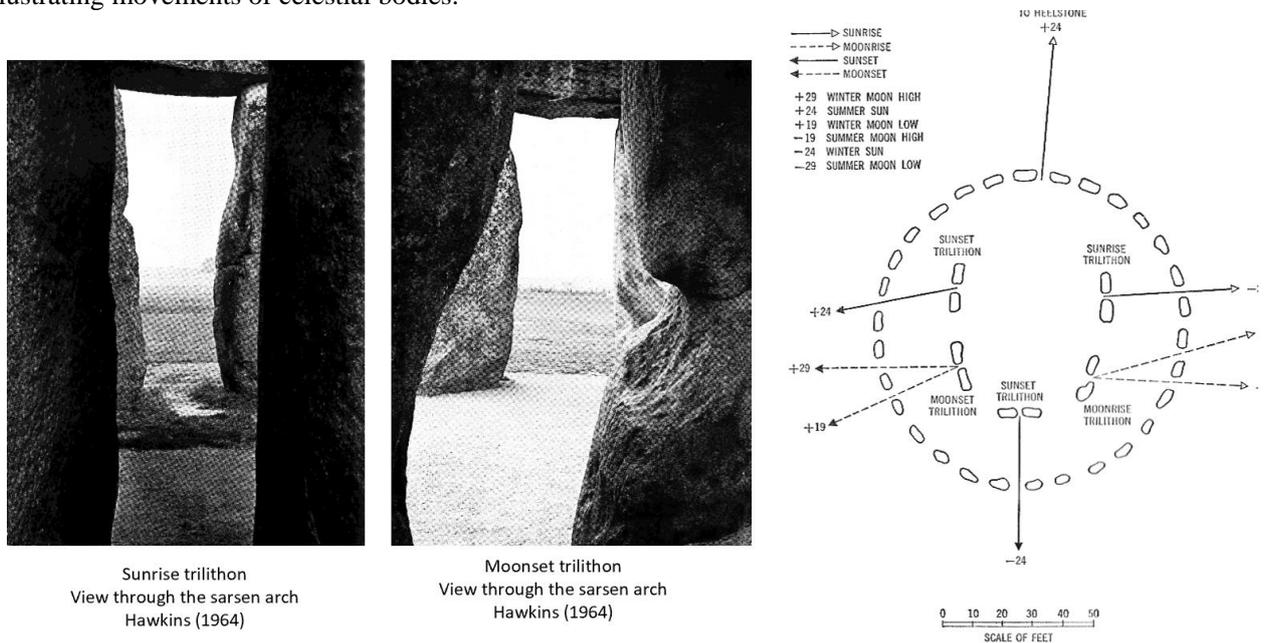


Figure 4. Hawkins, G.S., *Stonehenge Decoded*, London (1966)

Hawkins's astronomical experience frames his understanding of Stonehenge, evident in his drawings overlaying a 60-degree cone of vision for the eye gaze. His drawings look like a giant land clock: the inner and outer ring of the stones positioned for people to observe celestial events on earth, from eclipses, moon, and sun rotation throughout the year and seasons. Hawkins suggests the ancients used Stonehenge as a calendar to predict season or to provide a dramatic backdrop to frame the interchange between the sun and moon.<sup>8</sup> The framed views from Hawkins's collection of still photographs fascinates the most contemporary observer, the shape of the solid stone in the foreground with the ever-changing atmosphere in the background (Figure 4). For the first time, Hawkins's photographs brought a sense of poetry to the history of megaliths.<sup>9</sup> Paradoxically, it is the permanence of these great stones that frames the changing time.

<sup>6</sup> (Service & Bradbery, 1979, p. 44)

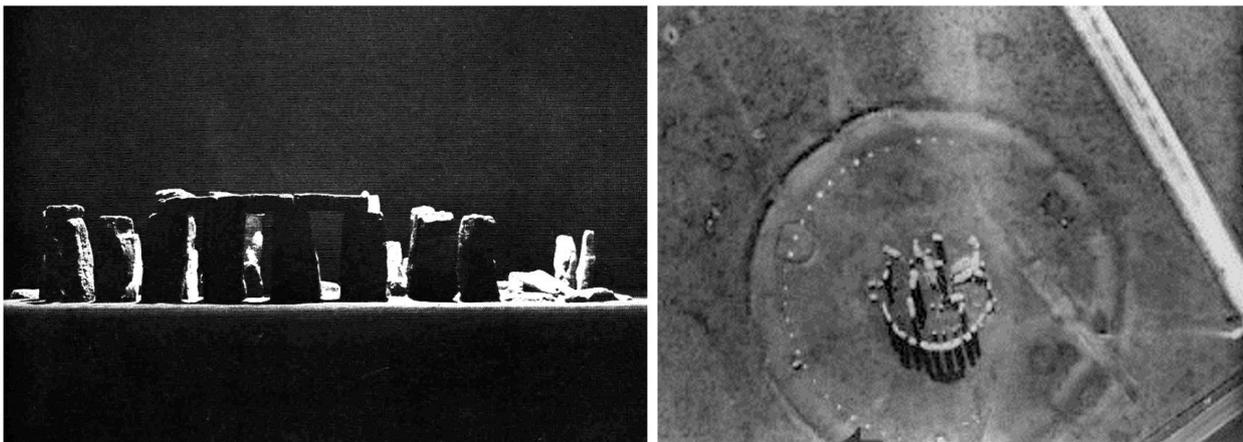
<sup>7</sup> (Hawkins, 1966)

<sup>8</sup> (Hawkins, 1966, p. 173)

<sup>9</sup> Neil deGrasses Tyson, *Modern American Astrophysicist*, in his book on *Origins: Fourteen Billion Years of Cosmic Evolution* (2004) he summaries the expanding, accelerating, universe relative to us on earth as – dark matter, is expanding the universe and pushing galaxies away from us away from our view from the horizon on earth. In the future, everything we know about the universe comes to use from the galaxies we can observe from earth. He wonders, could the ancients have an previous chapter of the universe in their view, which had been ripped away from our knowledge. And what we have left are these massive stones; weathering and aging, still fixed in its orientation – a memory of a civilization engaged in the cosmos.

## 6. Megaliths during Wartime, Stonehenge and Aerial Photography: (1944)

It may come to a surprise the individual credited to bringing Stonehenge, and megaliths, back into contemporary importance was from the uncanny detail precision of MIT scientist Harold Edgerton's 1944 WWII reconnaissance demonstration photographs of Stonehenge, which was the first to capture the monument at night, and through the air. These two images came back with him to MIT and inspired astronomer Gerald Hawkins and others to look back at the monument of Stonehenge. Edgerton's photographs were the first-time people saw the stones in detail and precision from above (Figure 5). Also, during the 1950-60s, we had the space race – while most astronomers looked outward, many were also looking back at the earth, and what better way to look back on earth than to gaze at long lasting structures such as Stonehenge. From Hawkins's groundbreaking research to Alastair Service and Jean Bradbery 1970's ecological conclusions, we have begun, perhaps to understand a particular aspect of these monuments, which is to form axis Mundi (a joining of the heaven and the earth). While these monuments were never intended to commemorate war (until a scholar discovers otherwise); it was the spotlight of war, and the aerial photography of Edgerton, that focused our collective attention back to the megalith's origins.



First night image and areal photographs of Stonehenge, lit by aerial strobes.  
Ground (left) to aerial (right) night reconnaissance images (1944)

**Figure 5. Edgerton, Harold: Electronic Flash, Strobe, The MIT Press, 1987 (MIT.edu)**

## 7. Megaliths and Art: Land Art Movement and Contemporary Memorials (1960-1970s)

The megaliths and research from Edgerton (1944) and Harold (1960) created a culture of influence and inspiration for the Land Art movement that emerged in the 1960-the 1970s in Great Brittan and the United States. The “Land Art” project is akin to ancient megaliths – expanding boundaries of art and material by using landscape to situate their work. It is also the rejection of the commercialization of art during the time and enthusiasm toward ecological movements – spiritual yearnings, recalling the ancient megalith monuments, such as Stonehenge.<sup>10</sup> Land Art, a term coined by Robert Smithson, is argued to have received some inspiration from the photographs by Edgerton on Stonehenge, which shows the monument as an abstract figure in the landscape. The Spiral Jetty, an arrangement of small stones together to make a more extensive arrangement as seen from the sky, is in part the spirit of how the megaliths were conceived. The Land Art movement was strong in the 1960-1970s. Some scholars argue it led to one of the most significant memorials of our time, Maya Lin's Vietnam War Memorial in Washington DC (1982). While Lin's abstract ideas are not without influence, we can now see a connection between this modern memorial and ancient megaliths.<sup>11</sup> The lasting influence can be felt from the artist with large land art sculptures and later monuments. Markings in time with relations to something beyond – in distant view, and time (Figure 6).

In conclusion, while the megalith monument might be set in stone, human interpretations take time to shape and formulate. The process of understanding monuments can be seen as a metaphorical mirror of culture. Memorial scholarship, when viewing with a critical period eye, examining text with context, can be a productive study on all monuments and their direct influence on research and scholarship.

<sup>10</sup> Kett, Robert J. "Monumentality as Method: Archaeology and Land Art in the Cold War." *Representations* 130, no. 1 (2015): 119-51. doi:10.1525/rep.2015.130.1.119. Land Art, a term coined by the Robert Smithson, Spiral Jetty seems to be received some inspiration from the photographs by Edgerton as an abstract figure in the landscape

<sup>11</sup> Abramson, Daniel. "Maya Lin and the 1960s: Monuments, Time Lines, and Minimalism." *Critical Inquiry* 22, no. 4 (1996): 679-709. Accessed July 31, 2021. <http://www.jstor.org/stable/1343997>.



Harold Edgerton, Electronic Flash Strobe, Aerial Views of the Stonehenge Ruins, (1944), Prehistoric Britain



Robert Smithson, Land Art, Spiral Jetty (1970), Salt Lake Utah, USA



Maya Lin, Vietnam Veterans Memorial, (1982) Washington, D.C, USA. Aerial view

**Figure 6. Stonehenge, Land Art movement, and the Contemporary Memorial**

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