

Metaphysical Archaeology of Lighthouses

(Part II)

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Seaside Lighthouse, Lucien Steil 2011

The earliest lighthouse structures probably are as old as seafaring activities, which are archeologically documented as early as 8000 B.C. Seafaring, for travel and fishing along coastlines or on short sea connections, was probably practiced in neolithic times and developed in the context of nomadic or half-nomadic civilizations. Early

lighthouse systems consisted mainly of temporary and occasional fires lit on higher locations or promontories. They might have taken advantage of both fire and smoke, and the combination of coded fire and smoke signals for guidance and warning might have worked with good efficiency for day and night navigation along coastlines. It is reasonable to imagine some even more elaborate sign language able to convey messages over longer distances. These antique beacons, which were really a kind of optical telegraph, were fires prepared on hills or set up on specially constructed terraces, often organized in relay leagues, creating systemic chains of speedy information and accelerated communication over longer distances and, eventually, through complex and often discontinuous geographical settings.

The presence of fire, though obvious in the context of functional necessities, does nevertheless suggest connotations of sacredness and ritualized practices, religious, magical or purely incantatory. The issue of sacred associations, religious connotations and magical practices can be confirmed through the typological references provided from temple hills, funeral monuments, including incineration towers and terraces, and commemorative towers and pylons. The combination of elevated altars in spectacular landscape contexts and the association of fire also raises the possibility of sacrificial ceremonials within the usual tasks and other purposes of the beacon or primitive lighthouse systems.

Fire indicates purifying intentions, rituals of transformation from matter to light or spiritual essence, essential parts of sacred practices and important symbolical strategies. Any type of magical or religious ceremony or ritual would indicate a body of liturgical and esoteric knowledge, and would very certainly demand figures of spatial organization, symbolism, geometry and location. This offers possibilities for re-interpretation and of typological synthesis in the complex forms of tholos structures. The elevation of terrace, hilltop, cliff, promontory and island, combined with the energies of fire and light, is associated with the ideals of navigation: departing and arriving, traveling and exploring, guidance and stewardship, orientation and coordination. This is not a technical agenda but a metaphysical one. Man's navigational routes were subordinated to the non-linear geometries of divine providence and then magnificently inscenated in the serene figures and geometries of lighthouses, vibrant with sacred complicities. The earlier lighthouse structures built by the Libyans and Cushites in Lower Egypt were maintained by priests. The dim light of candles, maintained loyally by devout monks and hermits in their elevated cabins and isolated refuges, in later centuries saved the lives of many lost or disoriented sailors navigating through agitated and rough coastal seas. Here we can understand particularly well the relationship to the pyramidal ascensional ziggurat typologies, temples sitting on artificial mountains stepping up to celestial terraces.

The latent sacrality of lighthouses has been particularly well served by the typology of the tholos, developed from earliest times into a fruitful inspiration for many religious building types: baptisteries, mausoleums, temples, domes and central plan churches, etc. All were conceived around an original place of fire or water, and all stressed a forceful central axis as a compositional and symbolic characteristic of the building type. One can easily see tower structures as a superposition of buildings and, in the case of the lighthouse, the vertical stratification of different tholos structures, or, in the case of the Mesopotamian ziggurat, a temple built on other temples, all stacking and stepping up as an artificial mountain, on top of which a last temple maintains a continuous light supervised by consecrated high priests.



Waterfront Composition with Lighthouse, Lucien Steil, 2011

ANTIQUE LIGHTHOUSES

Though few antique lighthouses are preserved, we know that a substantial number of lighthouse structures supported the intense seafaring activities of the antique world, particularly around the Mediterranean basin. Many of these structures might have been temporary and rudimentary beacons, activated only occasionally and when necessary. However, the fact that two lighthouses can be counted among the Seven Wonders of the Ancient World should confirm their importance in the culture and collective memory.

The temporary and occasional lighthouses or more rudimentary beacons were tactical, part of a clever adaptive system with a high degree of flexibility. Primitive lighthouse structures served relay strategies, and the high number of smaller beacons was part of a complex hierarchical lighthouse organization, enhanced by larger and eventually fortified beacon structures and finally complemented by a smaller number of extraordinarily monumental lighthouses serving larger cities and metropolitan port areas. The concept of temporary tactical lighthouse systems suggests a sophisticated level of organization, interaction and coordination between maritime movements and terrestrial monitoring, protection and guidance. In the absence of political and territorial unity and with the seacoast more or less governed by the boldest and most intrepid, lighthouses might have had an increased responsibility in mediation and information logistics. Lighthouses orchestrated movements on the land and on the sea. Imagine that their light would signal the position of a city, a port, a coast location or a privileged viewpoint upon sea areas, and would thus also serve for logistics within land territories guided by the intelligence of lighthouses and beacons.

Imagine also the complexity of regularly supplying substantial quantities of fuel for the voracious fire on the top of lighthouses in the context of difficult terrestrial routes, often in extreme topographic situations or isolated locations. Imagine the complexity of lifting the straw, wood and other combustible materials to the upper terraces of the beacons and lighthouses. In ancient Greece, particularly, a large part of the forests and tree reserves had already been decimated, leading to a chronic and dramatic wood shortage. Lighthouses had to rely on complex and expensive fuel resources, probably based often on imported wood.

Imagine the complexity of establishing and maintaining continuous interaction with busy naval activities—hundreds of simultaneous events and maneuvers to be monitored individually and as part of a larger systemic complexity, without radar, telephones or any sophisticated technology of communication. Again we have to stress the formidable communication intelligence which operated in antique lighthouses, complex code systems and sign language articulated by means of light

and smoke signals, mirror flashes, perhaps hand or flag signs, supported by acoustic systems using primitive horns and pipes, or a rich variety of percussion. The acoustic backup of lighthouses is an important issue, given the problem of foggy conditions and daytime warning systems. In later lighthouses, the noise of explosions and gunfire, powerful horns and sirens, and, more recently, radiotelephonic devices and amplified electronic sound systems complement the light coding. Today, the accelerated development of electronic technology and satellite-based information and communication systems have compromised the existence of traditional lighthouses.



Ponta do Sinó Lighthouse, Sal Island, Cape Verde, (photograph by Miklos Kiss/ Wikimedia)

THE LIGHTHOUSE OF ALEXANDRIA

The lighthouse of Alexandria, one of the Seven Wonders of the Ancient World, was built on the island of Pharos in the third century B.C. and stood until 1303, when it was destroyed by a violent earthquake. It was to remain the most influential precedent in the typological history of lighthouses, unlike the Colossus of Rhodes, which also served as a lighthouse.



Engraving of the Pharos of Alexandria Lighthouse, third century B.C.

The lighthouse of Alexandria was described several times, particularly by Arabian travelers such as Abau Hagagg al-Andaloussi and Ibn al-Shaikh in the twelfth century. Abau Hagagg al-Andaloussi's report describes a tripartite structure with a 55.9-meter-high lower square volume with a cylindrical core, an 18.30-meter-wide

middle and 27.45-meter-high octagonal part, and a last circular 7.30-meter-high upper structure. The whole lighthouse was estimated at about 117 meters, corresponding roughly to a forty-story skyscraper. An internal shaft was used to lift the fuel needed for the fire. At the top stage, there was a refined and powerful mirror to reflect the sunlight over long distances during daytime. Originally, the lighthouse summit was crowned by a statue of Poseidon. Some elements from Ibn al-Shaikh's description include:

- The lighthouse rested on a platform seven meters high and 110 meters square.
- The square first level was seventy-two meters high, with a wide internal ramp used for transportation of fuel.
- The second level was an octagon thirty-five meters high with two stairhalls and a ramp.
- The final floor consisted of a thirty-five-meter-high cylindrical volume with a diameter of nine meters.

The total height supposedly was about 140 meters, though other sources give less spectacular numbers, around 100 meters or about 80 meters, still a very impressive height compared with more recent lighthouses, where even more monumental examples are not higher than forty meters. The lighthouse of Alexandria was considered in antiquity the tallest building on Earth.

In comparison, the allegorical Colossus of Rhodes, erected in c. 280 B.C. was no higher than thirty-three meters and did not resist the earthquake which destroyed it in 226 B.C. The lighthouse of Alexandria can be considered as a fully mature typology that synthesized the various symbolic and formal sources of ancient lighthouses, including military, religious, funeral and vernacular-technical influences, into a coherent new type, so popular and authoritative that it influenced successive generations of lighthouses. The integration of mirror systems, and the combination of light and smoke signals over long distances, perhaps thirty-five miles, as well as the complex system of ramps and stairs for interior circulation and vertical transportation, are other relevant features of the archetype. One might reasonably argue that it not only influenced the construction of other lighthouses, such as the lighthouse of Ostia (200 B.C.), but also inspired the creative historic process of typological invention through the whole transect of architecture, from vernacular forms to monumental and classical building typologies through the modern

skyscraper genealogy.

THE COLOSSUS OF RHODES

The Colossus of Rhodes, another of the Seven Wonders of Antiquity, a huge figural and sculptural construction, was a short-lived monument, despite the awe and admiration it provoked, and has not substantially influenced the genealogy of the lighthouse type. Its slightly megalomaniacal and hybrid scale, heavy-handed scenography and thick pathos were far less inspiring than the compositional rigor, tectonic monumentality and volumetric elegance of the Alexandria lighthouse. The Colossus of Rhodes represented the god Helios, to whom it was dedicated. Its dedicatory inscription read: “Not only over the sea but also on land did they kindle the lovely torch of freedom.” Though it had no significant impact on the typological evolution of lighthouses, it inspired the Statue of Liberty in New York harbor, and eventually other, more trivial monuments and landmarks.



Colossus of Rhodes, c. 280 B.C.

as imagined in a sixteenth-century engraving by Martin Heemskerck

LIGHTHOUSES AS A METAPHYSICAL INSPIRATION

Lighthouses are enormously threatened, not only functionally by modern communication technologies, but also because they are perceived as useless artifacts. Still, many have been rescued and still operate as lighthouses, and others have been beautifully restored and dedicated to a variety of new uses. Let us help save and revitalize lighthouses throughout the world and support related initiatives of academic or cultural or economic purpose. Research works and publications, such as those by Cristiana Bartolomei and Giuseppe Amoroso in Italy, documenting the lighthouses on all the Italian coastlines, and similarly passionate commitment in the United States and all around the world are essential intellectual manifestoes in this battle for our most vital cultural, architectural and landscape heritage.



Oregon Coast Lighthouse, Lucien Steil, 1987



St. George Reef Lighthouse, 1882–92, near Crescent City, California, abandoned by the Coast Guard in 1975

© Photograph Courtesy of Kenneth A. Weaver

However, it is not enough to preserve threatened ancient lighthouses or to restore the operational integrity of lighthouses. I would like to suggest that these beacons could inspire a variety of contemporary projects, typologically, poetically and metaphysically, without necessarily having a lighthouse function or a seaside location. The lighthouse typology appropriated in this metaphorical context would allude to a virtual sea, to the ocean as an analogy of destiny, as a metaphor of existence. The coast becomes a metaphysical fiction: the transition, boundary, edge or threshold between parallel worlds—sacred and profane, finite and infinite,

universal and contingent, close and distant.

The lighthouse can act as the sentinel of a multidimensional complex reality, as a catalyst of transcendence, as a sanctuary of vision, both toward interior and exterior horizons, as a monument of lightness and enlightenment. The memory or myth of navigation would be operational both literally and figuratively. It could be developed as a metaphor of journey, discovery, exploration, search, nomadic iteration, errancy and orientation, of initiation, journeys and processes. Navigation is considered, in the mythologies of various cultures, as a means to achieve peace, harmony and even “nirvana.” In Buddhist tradition, crossing the “Sea of Passions” leads to tranquility. The narratives deriving from the dense concepts of navigation uncover tales of courage and fear, virtues and passions, analogies of cosmos and human existence, parables of movement and rest, allegories of man’s and nature’s seasons, metaphors of harmony and chaos. They refer as well to interiority, psyche and soul, feeling, spiritual life and meditative introspection, interior journeys, learning and research.

The tower structure, stepping up to its top lantern, articulated as a crowning tempietto or loggia, suggests the symbolic ascension into an elevated and purified ideality, granting beautiful perspectives into complex realms of reality, opening upon visions of virtue, wisdom and the “good life.” Other symbolic aspects of lighthouses—sight, vision and visibility, enhanced by the powerful complicity of light—remain central features of understanding and communicating our locations and movements in a larger context of our built environments. Lighthouses invite us with poignant poetry and metaphysical and metaphorical evidence to take care, lovingly and with utter wisdom and humility, of our world; to organize meaningfully our natural habitat and human communities, and to enhance their living cultures and traditions. They also encompass, in a most beautiful, perfect and appropriate building type, the symbolism of all human endeavors dedicated to the construction of a durable, sustainable, dignified and beautiful world in a context of identity, orientation and continuity.

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- See more at: <http://www.nccsc.net/essays/metaphysical-archaeology-lighthouses-part-ii#sthash.IiNXFDdq.dpuf>