

Religion, Archaeology and Modern Calendar Buildings: A study of Avon Tyrrell House in England

Currently 4601 words excluding reference list.

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Submission to the *Journal for the Academic Study of Religion*

Special Issue: Religion, Archaeology and Folklore

Volume 28.2 (2015)

Abstract

This paper will explore a modern example of the tradition of constructing cities and sacred sites as reflections or embodiments of the sky. By creating spaces which were connected to the celestial bodies it was possible to create human communities which were linked to celestial ones, encouraging social stability and harmony. Such ideas underpinned traditions of the foundation of cities from China, through India, the Middle East and Mesoamerica. The paper focuses on Avon Tyrrell House, a substantial private residence which was designed and built in 1891-3. The architect, William Lethaby (1857-1931), was part of the Arts and Crafts movement and one of England's leading modernists. The paper will frame discussion of the building within notions of the continuity of ancient traditions of solar symbolism in architecture, the consideration of function in the archaeology of the present and immediate past, and will refer to the theory of vernacular and material religion.

Introduction

This paper presents a study of a nineteenth-century family house, Avon Tyrrell House, which was designed and built in 1891-3 (Backemeyer and Gronberg 1984: 70) as a large family residence in the New Forest, a little way north of Southampton, in southern England. The house was the first building designed by William Richard (W.R.) Lethaby (1857–1931), a junior in the practice run by one of the most distinguished architects of the time, Richard Norman Shaw (Davey 2010: 66; Yorke 2011: 14). My study of Avon Tyrrell House was prompted by the description of the building in a notice board in one of the main public rooms as a 'calendar house'. The notice explained that the house includes 365 windows, one for each day of the year, 52 rooms, one for each week of the year, 12 chimneys, one for each month, and seven ground floor doors, one for each day of the week. We are also told that 'The sun shines through every room'. The main bedrooms, including the original master bedroom, and the gardens therefore receive the maximum amount of sun and light.

The house is now run as an outward bound centre. The current website (<http://www.avonTyrrell.org.uk/page/home.html>) reports that:

Avon Tyrrell Outdoor Activity Centre is located in 65 acres of land in the heart of the New Forest, offering outdoor education through an extensive range of adventure and field study activities. Providing residential and day visit facilities, activities and sessions for all groups of people, to suit everyone from schools, sport groups and youth groups, to disability groups, faith groups and even corporate clients.

William Lethaby, the architect, is widely recognized as a figure of pivotal significance in the transition between the architectures, respectively, of the nineteenth and twentieth centuries. He was a 'major figure in the (Arts and Crafts) movement' at the time when it had become a major 'design force in Britain' (Cumming and Kaplan 2004: 9), was a founder member of the 'Art-Workers' Guild in 1884 (Brandon-Jones 1984: 24-31), and helped to found the Central School of Arts and Crafts, in London in 1894 (Gronberg 1984: 14-23; see also Rubens 1986 and Stevens 2000). As part-time co-director from 1896 to 1902 and Principal until 1911, it was what Cumming and Kaplan (2004: 84) call his 'inspirational philosophy' which dominated the school. Avon Tyrrell was designed in 1891 when Lethaby was just thirty-four years old. Hart (1993: 145) regards Lethaby's philosophy as broader than that of the Arts and Crafts movement in general, in view of his appreciation of both the ancient and modern, and 'ranks (him) alongside' Alfred Loos, Le Corbusier and Frank Lloyd Wright.

This paper will suggest that Avon Tyrrell house may be considered as an example of recent vernacular and modern material religion, and of the archaeology of the present. It follows Buchli and Lucas (2001: 4), who identify two kinds of archaeology of the present; first those that may deal with the present, but are intended to encourage generalizations which may relate to a more traditional on chronologically distant periods and, secondly, those that are designed to deal with an 'archaeology of us', that is, of the modern world, even when a long-term historical focus is used as context. Avon Tyrrell House conforms to the second category. At the moment it is a stand-alone case as we have no comparable information concerning any of Lethaby's other designs. Neither do we have any information concerning the intentions of Lord Manners, for whom the house was built.

Traditions of Celestial Architecture

The construction of the built environment in order to harmonise with, reflect or embody, the cosmos and/or sky appears to date to the earliest known architecture, traditions which date back in the British Isles, where Avon Tyrrell is situated, to the Neolithic (Ruggles 1999). By creating spaces which were connected to the celestial bodies, it is believed, it was possible for ancient builders to create human communities which were linked to celestial ones, encouraging social stability and harmony. Such ideas underpinned traditions of the foundation of cities from China, through India, the Middle East and Mesoamerica. The rationale can often be seen as reflective. Xiaochun Sun (2000: 425) argued that in China, 'The universe was conceived not as an object independent of man, but as a counterpart of and mirror of human society', while Trudy Griffin Pierce (1995: 63), talked of a 'patterned mirroring between sky and earth' in native North American cosmology. And in Plato's *Republic* (IV.I.C, III.A, VIII.A) Socrates argues that the city and the soul are structurally isomorphic so that individual, city and cosmos are all connected. The city then becomes what we might call a cosmogram, or cosmopolis. Recently studied examples of architecture in the Roman world which included solar symbolism in design

and structure included Nero's 'Golden House' (Hannah, Magli and Palmieri 2013) and the Pantheon (Hannah and Magli 2010). The tradition of aligning Christian churches on a rough east-west, sunrise-sunset axis survived until modernity, and was still a feature of nineteenth century ecclesiastical architecture (Ali and Cunich 2001; Hoare and Sweet 2000).

The Calendar House

Calendar buildings are so-called because they included an astronomically-derived calendar numerology in their design. According to Matthew Beckett (2013), 'The principle of the calendar house is that the number of external doors, windows or panes of glass, chimneys, or staircases or other elements should total either 4 (the number seasons), 7 (days in a week), 12 (months in a year), or 365 (days in a year)'. Beckett (2011) further argues that 'The genesis of the calendar house appears to have been in the intellectually fertile Elizabethan period when the elite of society revelled in the advances of science, mathematics and astronomy. They also had a great love of the "device" which in the 16th-century meant any ingenious or original shape or concept.' Elizabethan scholars were familiar with Platonic concepts that the world was constructed according to number, and that number contained meaning and revealed time (Tillyard 1943; Girouard 2009: xvii). One of the most famous symbolically potent buildings of the late Elizabethan period was Tresham Lodge, built in 1594-5, a triangular construction designed according to the principles of the number three, probably, according to Girouard (2009: 236), with assistance from the Cambridge mathematician, astronomer and astrologer, John Fletcher. It is plausible that such a symbolically-aware milieu gave rise to the idea of the calendar house.

The earliest known example of a calendar house is Knole House in Kent, in southeast England, built in 1604, by one of queen Elizabeth I's courtiers, Thomas Sackville, 1st Earl of Dorset, in which the calendar is represented through the 365 rooms, 52 staircases and 7 courtyards. Beckett (2013) continues,

It is this choice of the number of which elements that provides the variation to the theme and can lead to the creation of palaces such as Knole. It also helps explain the relative scarcity of these houses as they require a certain commitment from the owner to complete the build and not compromise on the plans for fear of spoiling the totals.

Beckett (2013) gives other examples, such as Scout Hall at Shibden, near Halifax in Yorkshire, built in 1681 to a design which features 365 panes of glass, 52 doors and 12 bays. Boughton House in Northamptonshire, constructed by the first Duke of Montagu in the 1680s-90s, and current home of the Duke of Buccleuch contains 7 courtyards, 12 entrances, 52 chimney stacks and 365 windows. Still owned by the same family today and largely unaltered it is one of the greatest houses still in private ownership. Beckett (2011) also observes that, at least in its English form, the calendar house appears to be a late 16th century concept, although most surviving examples date from the 19th century. Of these, the largest is the Grand Hotel, Scarborough. In 2012 the hotel's website gave some background:

Originally constructed in 1863, it was one of Europe's first purpose-built hotels, with a design based on the concept of 'time' - 4 towers to represent the 4 seasons, 12 floors for each month, 52 chimneys for the weeks and 382 bedrooms for the

days of the year. This is a beautiful example of grand Victorian architecture and completely dominates the surroundings like a true masterpiece.

There are not, of course, 382 days in the year so I assume, having been unable to trace the writer of the paragraph, that the number is either an error, or that further rooms had been added to an original 365.

Even though the origins of the calendar house, the intent of the architects who built them, and the transmission of the tradition, are all uncertain, it seems that there is evidence of a particular genre of astronomical architecture which relies on the inclusion of celestial symbolism and is explicitly domestic, rather than attached to displays of public sacrality or political power.

Phenomenology

My exploration of Avon Tyrrell House was initiated by a personal visit in the Autumn of 2011, and the personal experience of a weekend spent in a family house which is grand and imposing yet, in its domesticity, a radical departure from the stately homes which were still being built in the mid-nineteenth-century. My experience, as the starting point for the investigation, together with the consideration of the experience of the original inhabitants and the intention of the architects' call for an awareness of phenomenological perspectives. Alfred Schutz (1979: 54) argued that phenomenology is the source of all philosophical thinking: 'phenomenology, searching for a real beginning of all philosophical thinking, hopes when fully developed, to end where all the traditional philosophies start'.

According to Helmut Wagner (1979: 5), phenomenology's starting point is given in the experiences of the conscious human being who lives and acts in a 'world' which he apperceives and interprets, and which makes sense to him. He deals with this world in the intellectually spontaneous yet active mode of intentionality. So, again questions of Lethaby's intention are raised.

As a calendar house, the phenomenology of the study of astronomical events becomes relevant. For example, on the experience of the solstice at Stonehenge, Ed Krupp (1995) wrote:

One should make a point of being there. Celestial events take place in context. When you see what actually happens in the landscape, you learn a great deal more about it. It is, of course, possible to determine the alignment of a building with instruments, but nuances of light and shadow details of the horizon, difficulties in practical observation, and many more subjective aspects of a site can only be appreciated in person.

Clive Ruggles (1999: 151), who cited this passage, added, 'Similarly, by walking in the modern landscape we can try to appreciate patterns of relationship between monuments and the topographic elements of the landscape as experienced by people living in that landscape in prehistoric times'. Ruggles (1999: 151) conceded that we can never exactly know that we experience the same feelings when watching an especially bright full moon as did a prehistoric observer, but he does argue that 'the idea deserves serious consideration in contextual interpretations'.

Unlike some astronomically-related buildings Avon Tyrrell house is not observational. For example, at many megalithic sites, notably Stonehenge, an alignment permits an individual within the structure to observe a celestial phenomenon, in this case the rising or setting of the solstice sun. At other sites, such as the Great Pyramid at Giza, which is exactly aligned with the north celestial pole there is no observational intent (Neugebauer 1980). Rather, the monument is intended in some way which we can never recover, to embody, symbolize or activate the relevant celestial power. From this perspective the reflexive mirroring referred to by Xiaochun Sun (2000: 425) and Griffin-Pierce (1995: 63) is then an active force rather than a matter of just observing a reflection as one might observe one's face in a mirror. Avon Tyrrell's main bedrooms and gardens faced south and so would have been warmer and lighter than the rooms at the front, so perfect, in the case of the gardens, for lazy afternoon summer parties. Such functionalism, though, does not explain the calendrical symbolism of the windows, chimneys and doors.

The Arts and Crafts Movement

W.R. Lethaby, as Cumming and Kaplan (2004: 9) argued, was 'a major figure' in the Arts and Crafts movement, which flourished in the UK in the late nineteenth and early twentieth centuries, and had its origins in the reaction against the perceived rationalism of Neoclassicism and the desire to return to a more natural form of architecture. One origin is to be found in the elaborate neo-Medievalism of Augustin Pugin (Cumming and Kaplan 2004: 11-12; Davey 2010: 13-14), another the reforming aesthetics of John Ruskin, whose *Seven Lamps of Architecture* (1849) argued for the morally uplifting effects of symbols, appropriately used. The integration of design with craft and the use of traditional building materials was seen as central to Arts and Crafts design, and was inspired by one of the most influential British architects of the mid-nineteenth-century, Richard Norman Shaw (Saint 2010), in whose practice most of the Arts and Crafts pioneers worked (Yorke 2011: 14). Yorke (2011: 7) writes that 'a true Arts & Crafts house is one where traditional materials, techniques and styles from the local area (vernacular) were used to create a building of good quality and simple form, in which the function of the interior spaces was as important as the shape of the exterior'. By the early 1900s the movement had become, as Yorke (2011: 15) records, a means of servicing the needs of the wealthy middle-class. Nevertheless in the 1880s the pioneers had been driven by egalitarian, socialist ideals and a belief that the built environment could be reformed for the benefit of all. The Movement's architects, Yorke (2011: 4) adds, were part of 'a generation of social reformers, architects and designers (who) sought in the latter half of the 19th century to restore dignity and pride to workers and create buildings and objects based upon an idealised medieval world'. The relationship between the Arts and Crafts movement and the industrial, urban environment from which it recoiled could be described as 'agonistic', to use the term which Buchli (1999: 23) applied to the difficult relationship between Soviet and pre-revolutionary Tsarist architecture.

There are parallels with other developments in socially aware architecture. Victor Buchli (1999: 66), writing of new forms in 1930s Soviet design of the *byt*, or 'daily life', argues that the earlier revolutionary notion that the domestic sphere should be tightly regulated, if not obliterated, 'it was now suddenly presented by some of the most committed architectural *byt* reformists as the locus of individual growth, development and cultural progress'. The socially aware Arts and Crafts architects had anticipated this emphasis on the domestic as the focus for transformational design several decades earlier.

W.R. Lethaby

Avon Tyrrell's architect, W.R. Lethaby is little-known now but was once seen to be, as Fuller (1984: 33) put it, the 'English John the Baptist of the Modern Movement'. While he favoured traditional values he also argued strongly in favour of the sympathetic use of new materials, such as iron and concrete (Cumming and Kaplan 2004: 96-7). Fuller (1984: 38) adds that Lethaby straddled two traditions: one which resisted what it saw as the degrading effects of industrialisation and capitalism by creating buildings which elevated the aesthetic life of the urban masses. Fuller (1984: 38) fails to specify the second, but implies that it is what he calls 'an untenable' position regarding his reverence for symbolism.

Lethaby set out his ideas in a number of books, of which the first, *Architecture, Mysticism, and Myth*, was published in 1891, at the same time as he was designing Avon Tyrrell. He followed this with *Mediaeval Art* (1904), *Architecture: An Introduction to the History and Theory of the Art of Building* (1912) and *Form in Civilization: Collected Papers on Art and Labour* (1922). *Architecture, Mysticism and Myth* was described by Cumming and Kaplan (2004: 9, 39) as a summary 'of the idealistic nature of the [Arts and Crafts] movement', and a 'landmark' in the movement's combination of tradition and the vernacular with the modern. Fuller (1984: 38), on the other hand, regarded it as 'in one sense... a characteristically odd and often highly confused text'. Lethaby's thesis, as summarised by Fuller (1984: 38-9) is that:

there is a natural symbolism of architectural forms rooted in what is common to human experience in all cultures and at all times: because the men of Egypt loved the same sky that we also love, and shared the same need for shelter from the elements, we can appreciate their roofs and pyramids.

What Fuller considers odd and confused, though, in its appeal to universal human experience, is entirely in line with the essentialism that comprises one of the central strands of western thought from Plato via the late classical Neoplatonists to its flowering in the European Renaissance and its later offshoots, 19th century esotericism and theosophy (Faivre 1994). Lethaby, Fuller (1984) continues, realised that the symbolic order in architecture that was characteristic of the great age of ancient temples and gothic cathedrals, and which was essential for society's spiritual well-being, had almost disappeared, but he believed he could at least help maintain it in a small way through the incorporation of symbols in his otherwise functional architecture.

Why should Lethaby have wished to build a house which embodied solar symbolism? The painter J.M.W. Turner was attracted to such ideas, and they encouraged the studies of light which pervade his art (Gage 1989). John Ruskin had reported that Turner declared that 'the sun is god' shortly before he died (Birch 1989: 109). It was commonly thought, both by religious enthusiasts and critics, that the origin of all religion lay in solar worship, an argument influentially proposed by Max Müller (1885). This was the context within which the young Lethaby studied. Lethaby (1892: 175) himself made clear his interest in ancient reverence for the sun:

In the Veda: - 'The dawn shone with brilliance and opened for us the doors that open high and wide with their frames.' ... In Babylonia the same scheme is shown,

in such texts as the invocations to the rising sun, given in Records of the Past,' and by Lenormant, of which the first is curiously like Hesiod. 'He opened great gates on every side; he made strong the portals on the left hand and on the right; in the centre he placed luminaries. The moon he appointed to rule the night and to wander through the night until the dawn of day.'

'Sun, thou shinest in the lowest heavens: Thou openest the bolts which close the high heavens: Thou openest the gate of Heaven.' Or: - 'In the great door of the high heavens in the opening which belongs to thee.' Steps led up the sky from the east gate and descended to the west (Lenormant). Dr Hayes Ward in the American Journal of Archæology (Vol. 3), shows some dozen Babylonian seals, with intaglios of the Sun-god passing through the double-valved gate of the East and beginning to climb the mountain of the sky. The gate has two guardian figures.

To the Egyptians, the sun was The Opener. The gates to the grave land are often mentioned in the Book of the Dead, and are figured on the tombs.

Cumming and Kaplan (2004: 9, citing Lethaby 1892) make the point that Lethaby's idealism - his hope for a future when 'the message will be of nature and man, of order and beauty, but all will be sweetness, simplicity, freedom confidence and light', apply equally to architecture and the quality of life. To what extent, then, did Lethaby think that his adaptation of ancient mystical truths had agency; that they would, in effect exert a magical effect on the occupants of his buildings?

Function

For the clients of Arts and Crafts architects, their homes' principal function was clearly to provide comfortable family accommodation up to the latest standards, with bathrooms, kitchens and public and private rooms. Michael Schiffer (1992: 9-12) identified three main types of function: technofunction, the utilitarian use of a thing; sociofunction, for example the way in which a thing reveals the social status of its owner; and ideofunction, or the way in which a thing symbolizes abstract ideas, values or beliefs, such as religious artefacts. Beth Preston (2000: 30) added a further binary distinction between a proper function, an objects primary intended use, and a system function, its additional unintended uses: for example, a chair's proper function is to be a seat, but a system function is to be stood on in order to change a light bulb.

But in this case, what is the functionality of Avon Tyrrell House? If Lethaby was interested in astronomical symbolism as decoration, the house's calendar features are an ideofunction in Schiffer's sense. But, if Lethaby had magical intent (that is, if he believed that symbols had agency) then the calendar symbolism becomes a primary ideofunction in Preston's typology, the number of windows, rooms and doors having as much importance as the kitchen, say, or heating system. In Preston's scheme, though, a proper ideofunction does not imply that symbolism has any power in itself; rather it just becomes a primary function. Preston (2000: 31) gives the example of the swastika, which began as a Hindu solar system, was imported into Europe, and was reversed and adapted by the Nazis, who gave it a secondary, system function representing, amongst other things, anti-semitism. This system function then gradually became a proper

function, so that, in Europe, the swastika's Indian origins were lost and its Nazi, anti-Semitic, associations became paramount.

However, a problem which is largely unaddressed concerns the Arts and Crafts movement's use of symbols as a means of elevating the consciousness of the oppressed urban masses. Were the masses supposed to gaze at a symbol and just feel better as a consequence? But how did this mysterious transformation happen? Was there a mechanism by which this transformation took place? One solution may be provided by the classic Platonic view of a symbol as having agency in itself, in being able to have an effect of the material environment (Struck 2004). In that case, a window might have a primary techno function of allowing the inhabitants of the house to see, but a primary ideofunction of admitting divine light, actively harmonising the house and its inhabitants, as a dynamic system, with the cosmos. The symbol then shifts from being ideofunction to technofunction. Matthew Johnson's (2010: 79) description of function then becomes apposite: 'In functional explanation, culture is seen as comparable to an organism such as the human body or any other complex organism – there is an organic analogy.' Johnson describes how religions, practices and institutions can be interpreted in terms of their function, and uses biological analogy of parts of the state as like parts of the body in terms of regulating the whole. However, in the context of Elizabethan thought, within which the calendar house appears to have been originally conceived, the medieval notion of the body politic was real (Tillyard 1943).

Conclusion

To return to this distinction between astronomically-related sites which may permit observation of the sky (such as Stonehenge) and those in which observation may be irrelevant (such as the Great Pyramid and Avon Tyrrell), Kim Malville (2014; forthcoming) argued that the archaeoastronomical sites in India which he had examined

display some of the dangers of etic labelling, i.e. imposing meaning from outside the culture: sun worship, equinox alignment, solar observatory, research station. Surya puja is not a case of sun worship but a ritual in which the sun is seen by participants to be prostrating himself to Lord Shiva. The temples of Khajurao can be properly interpreted only if one knows the details of the solar-lunar calendar and pilgrimage traditions in the area.

In this sense the astronomically significant building is a ritual arena in which individual and sun connect in an intimate, personal relationship. The outstanding question is to what extent Lethaby subscribed to the ancient sun worship which so fascinated him. We have no record of any association with the esoteric and magical groups of the time, notably the Theosophical Society and the Hermetic Order of the Golden Dawn. However, as Hart (1993: 147) noted, Lethaby's work coincided with the interest stirred up by Frazer's *The Golden Bough* (volume 1 was published in 1890) in ancient symbolism, and the French symbolist movement's active use of symbols as an adjunct to their occult interests (see for example Chaitow 2014). Sangha (2014) has suggested that Lethaby took the ancient wisdom he studied seriously, and as more than of merely antiquarian interest. It is Hart (1993: 148), though, who comes closest to suggesting that Lethaby's ancient symbolism had a real purpose and meaning and anticipated C.G. Jung's view of symbols, for example, mandalas, as real and active. Van Der Plaet (2002: 369) is also taken by

Lethaby's (1891: 14) view that the temple 'idea' (evoking Plato) refers both to the structure of the universe and speaks of the relationship between men and gods.

In the absence of specific statements by Lethaby on his purpose in the case of Avon Tyrrell, we can assert with confidence that it represents his fascination with solar symbolism. The more difficult question is whether Lethaby thought that symbolism had agency. For now, that question must remain open. I would like to conclude, though, by suggesting that the house may be usefully contextualised by reference to the theories of vernacular and material religion. The term 'vernacular' religion was coined by Primiano (1995), and defined by Bowman and Sutcliffe (2000: 6), following Yoder (1974: 14) as 'the totality of all those views and practices of religion that exist among the people apart from, and alongside, the strictly theological and liturgical forms of the official religion' (see also Bowman and Valk, 2012)

And on material religion Morgan (2008: 228) wrote

If culture is the full range of thoughts, feelings, objects, words, and practices that human beings use to construct and maintain the life-worlds in which they exist, material culture is any aspect of that world-making activity that happens in material form. That means things, but also includes the feelings, values, fears, and obsessions that inform one's understanding and use of things.

The tradition of celestial architecture within which Lethaby operated were consciously religious, as his writings in *Architecture, Mysticism and Myth* demonstrate. The 'calendar house', the style of celestial architecture which Avon Tyrrell represents, appears to have emerged in the early modern period, although with possible roots in Renaissance Platonism, and hence with classical symbology. In its use of calendar numerology, the calendar house may be seen as what Griffin-Pierce (1995: 63) called a 'patterned mirroring' of the sky. From archaeological theory, the house's ideofunction then becomes to harmonise heaven and earth, a function which is to be realised phenomenologically via the experience of the people who use the house. I conclude, then, that the house may be understood as an example of vernacular religion and, being part of the built environment, within the discussion of material religion.

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