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The cover shows part of the façade of the numerous walls in the Crystal Lagoon area leading into differently-sized caves around the island of Comino, situated between Malta and its sister island Gozo. Detail from a photograph by Grace Cassar, used with permission.

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The opportunity to pursue and publish original research during the MA programme at the Sophia Centre for Cosmology in Culture produces a remarkable variety of new and relevant material. This issue of SPICA takes us further into the meaning of the sacred.

Grace Cassar explores whether the shoreline can function as an opening to the sacred and considers whether ancient Mediterranean societies incorporated their concept of liminality into how they understood the meaning of the shoreline.

Ilaria Cristofaro tackles the question of sacrality of space in a unique fashion, by considering the philosophical debate on the nature of time. In particular, she explores the relationship between consciousness, perception and time and how the act of concentration may offer the individual access to the sacred world. This fascinating essay offers many avenues of thought and research and in itself encapsulates much of the MA programme's ability to connect many areas of culture into an expanding understanding of what cosmology and its study entails today.

Melanie Sticker-Jantscheff does delves into contested meanings in her paper on the ancient burial mound at Magdalenenberg, offering a critical new look at the research work that has been done and contrasting the results of the state and academic research with the contested hypotheses of the archaeologist Allard Mees. Interviewing major players including Mees, she offers a compelling resolution to the debate.

Finally, Lucie Provaznikova contrasts three primary sources for a critical review of the development of psychology in Western astrology, with a close look at the importance of the meaning of fate and of the interest in the psyche, suggesting a broader understanding of how psychological concepts may exist in astrology at an earlier date than is usually thought. One thing that is not original or unique is the fascination of these essays whatever your personal interest may be, so I invite you to get reading.

Rod Suskin
spica@sophia-project.net
This paper inquires how the animate seashore may be considered to be an opening where the sacred is made manifest, as suggested in Mircea Eliade’s theory of the irruption of the sacred. Through the selected examples, this exploration will examine how ancient Mediterranean societies interpreted and expressed their concept of liminality as contextualized within their cultural and metaphoric view of the land-, sea- and skyscapes. Moreover, by engaging with the new understanding of animism, this analysis argues how the mutating littoral, through a sensory engagement, unfolds into a birthing space for experiential interchanges wrought in natural, human and divine realms.

Background

The present essay aims at investigating whether the seashore, animate and in perpetual motion, as an embodiment of the liminal, may be considered to be an opening where sacred space is revealed, thus centring the argument mainly on Mircea Eliade’s theory of ‘the irruption of the sacred’\(^1\). In seeking to understanding the relationship between *homo religiosus* and the landscape, and the interplay between the shore and the sea, insights into the ritual aspects of the liminoid concept will also be included so as to illustrate the significance of sacred symbolism that prehistoric communities and ancient maritime societies bestowed upon the sea. While bearing in mind that the overarching question is whether sacred space is a human construct, this essay will highlight the Maltese landscape, home to the monumental megalithic buildings raised during the Temple Period between the fourth and third millennium BCE, and the topography of these temple sites vis-à-vis their proximity to coastal areas.\(^2\) Hence, the essay rests upon theoretical and interpretative models drawn from a variety of disciplines, such as anthropology, phenomenology, religion and archaeology; by employing a holistic approach, the evidence aims to bring to the fore the presence of the manifestation of sacred space between the amorphous interface of land and sea.

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2 Reuben Grima, ‘An Iconography of Insularity: A Cosmological Interpretation of some Images and Spaces in the Late Neolithic Temples of Malta’, *Papers from the Institute of Archaeology, 12* (2009), 48-65. [hereafter: Grima, ‘Late Neolithic Malta’].

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Explaining the sacred

“How much of the earth is sacred space?” someone asked a traditional Indian. “All” came the reply. In their exploration of sacred space of Native American Indians, Donald Hughes and Jim Swan’s account on the statement made by Chief Seattle and their beliefs and perceptions on earth, the message is unequivocally powerful: ‘Mother Earth is a living being, sacred in all her parts’. Similarly, almost two and a half millennia earlier, the Greek philosopher Plato (c. 424-348 BCE), described the cosmos as ‘a Living creature endowed with soul and reason owing to the providence of God’ in one of his theoretical masterpieces *Timaeus*. An elaborately wrought explanation of the dialectic of the Sacred and the Profane’ is given by the historian of religions and mythologist Mircea Eliade, whose phenomenological interpretative model this essay is chiefly based upon. In his in-depth analysis of the engagement of sacred space and *homo religiosus*, Eliade, equipped with an exclusive body of vocabulary, introduced and construed a ‘thick description’, as anthropologist Clifford Geertz (1926-2006) later coined, whereby the symbolical demarcating nature of thresholds, such as doors and gates, acting as liminal boundaries, endow space with a non-homogenous essence, where the physical demarcation separating and ‘indicat[ing] the distance between the two modes of being, the profane and the religious’, gives birth to the ‘symbolic point of passage’ into an ‘hierophany’, the revelation of the sacred. This communicative opening into the interior of sacred space is further described as the ‘irruption of the sacred’ where the ‘break-through from plane to plane’ implies the cosmogonic moment where reality is revealed and ‘a world is founded’. Eliade’s sequence of ‘religious conceptions’ grounds its centre upon the communication with heaven through which the ‘navel of the earth’, also known as *axis mundi* is expressed for it is through the centre that ‘orientation’ is made possible; Eliade’s ‘centre of the world’ can be symbolically embodied in many a varied way, natural or man-made, such as a tree, a pillar, a sanctuary, a
city, or ‘the shepherd’s yurt’ \(^\text{10}\), where the horizontal encounters the vertical, and ‘the gods descend to earth and man can symbolically ascend to heaven’. \(^\text{11}\)

As was pointed out in the introduction to this paper, the objective of this essay proposes to employ Eliade’s interpretative model in order to analogously incorporate it in view of the liminality of boundaries; it is suggested that the symbolic nature of the physical body of the littoral as a religious conception and cosmological image can be explained as representing ‘the centre’ as ‘precisely the place where a break in plane occurs, where space becomes sacred’. \(^\text{12}\) Relevant to this discussion is the precise meaning of the word ‘littoral’ originating from the Latin \textit{litus} (plural \textit{litora}), the \textit{region} (my emphasis) lying along a shore of a lake, sea or ocean. \(^\text{13}\) The fluid spatial dimension of the seashore, therefore, ‘fraught with religious meaning’ is hereby proposed to be synonymous to a symbolic interpretation of the \textit{liminal}, a word whose etymological roots are found in the Latin \textit{limen}, signifying ‘threshold’, a passageway that acts as a doorway for the ‘irruption of the sacred’.

In support of the above, the seminal work of academics Anthony Thorley and Celia M. Gunn’ have yielded a vast body of data through which an operational definition of sacred site has been devised, namely, ‘a sacred site is a place in the landscape, occasionally over or under water, which is especially revered by people, culture or cultural group as a focus for spiritual belief and practice and likely religious observance. \(^\text{14}\)

**Tools of interpretation**

The first decade of the twentieth century witnessed the pioneering ideas of anthropologist Arnold van Gennep (1873-1957) whose universalist theory of the \textit{rites de passage} provided an interpretative tool towards an extensive analysis of the concepts of liminality. \(^\text{15}\) This theoretical model of the transitional, coined ‘betwixt and between’ \(^\text{16}\) by Victor Turner who further elaborated on van Gennep’s theory of classifications of rites, the French anthropologist emphasised how rites of separation, transition rites, and rites of incorporation are passages denoting intermediate stages, whether human, agrarian, seasonal or cosmic; significantly,

\(^{10}\) Eliade, \textit{Sacred and Profane}, p. 65.


\(^{12}\) Eliade, \textit{Sacred and Profane}, pp.37, 45.


\(^{15}\) Arnold van Gennep, \textit{The Rites of Passage}. (London: Routledge & Paul, 1960).

during the transiting process from one world to another, these passages involve shedding one identity so as to attain another.\textsuperscript{17} In unisons, therefore, the interpretative theories of both van Gennep’s and Eliade, albeit stemming from different disciplinary backgrounds, illustrate affinities in so much as both offer an explanation for the liminal as \emph{that} region of the shoreline where sacred space is channelled via the physical and magical convergence of land and sea thus embodying a symbolic gateway enabling the journey ‘from one cosmic region to another’.\textsuperscript{18}

Correspondingly to Van Gennep’s study, the profound analysis of the philosopher Ernst Cassirer (1874-1945) on mythical forms, space and time underscored the significance of ‘transition from one mythical-religious sphere to another [which] involves rites of passage which must be carefully observed’.\textsuperscript{19} Moreover, Cassirer strengthened van Gennep’s argument and illustrated the metaphoric nature of a zone when equating it to the hallowing nature of walls which delineate a ‘specific zone […] from other zones’\textsuperscript{20}; relevant to this case, as will be discussed shortly, is the Latin word \textit{temenos}, ‘a sacred enclosure or precinct surrounding or adjacent to a temple’, from the Greek stem of \textit{temnein}, as found in \textit{templum}, meaning ‘cut off’.\textsuperscript{21}

\textbf{Funerary Geography}

In support towards the aim of this essay, where coastal regions become entry-zones into the realm of the sacred, it is now necessary to consider how the embarked-body of water, as archaeologist Christopher Carr clarified, ‘provid[es] a framework for expressing’ the social, philosophical-religious worldviews that form part of the collective identity of societies\textsuperscript{22}; and in this particular argument, ancient maritime societies and their ‘funerary geography’.\textsuperscript{23} Following in-depth investigations on the rituals for the dead in the Phoenician funerary landscape, between the sixth and tenth century BCE, archaeologists Nicholas Vella and Anthony J. Frendo inferred that ‘the sea becomes a constituent of Phoenician
sacred cosmology; underworld and overworld are continuous for the sea was the boundary that had to be crossed by the living ferrying the dead to their eternal abode, as the excavations conducted at the cemeteries located on the mainland, opposite the offshore islands at Tyre (Lebanon) and Cádiz (Spain), among others, have revealed. Ancient Egyptian and Levantine literature is replete with narratives concerning the ubiquitous journey undertaken by the dead crossing boundaries across the liminal realms; analogously, the eighth century CE Anglo-Saxon funerary epic Beowulf anchors its opening and ending to the ceremonial ship burials and the sea unto which they are bestowed.

Following the multidisciplinary approach of maritime archaeology, through Jonathan Adams’s fresh interpretation, the boat is now being contemplated as an ‘ideology afloat’. Altogether therefore, as evidenced by the prime examples of death rituals pertaining to ancient seafaring societies, the sea, whether entered and crossed metaphorically or literally, pregnant with social, symbolic and spiritual meaning, voices and embodies the attributes of the sacred via the opening platform of the liminal littoral.

The Maltese Archipelago

In his revolutionary phenomenological approach towards landscape, archaeologist Christopher Tilley, by incorporating other disciplines in his interpretative model, steeped into the places and spaces explored the material culture in the landscape and discovered it was embedded with a language of powerful metaphor. This innovative model of interpretation compares with that of archaeologist Reuben Grima who, in his study on some of the megalithic architectural structures of the Late Neolithic (c. 3400-2500 BCE) of the Maltese Islands, shifted his emphasis to the relationship between the monumental sites and their landscape setting (plate 1). Geographically, the Maltese archipelago is situated in the liminal of the Mediterranean Sea, almost equidistantly between Sicily and North Africa, and after the Spanish Balearics to the West, qualify as the

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28 Tilley and Bennet, The Materiality of Stone, p. 86.
29 Grima, Late Neolithic Temples, p.48.
second most remote island groups of the Mediterranean.\textsuperscript{30} Previously to Grima, the archaeologist Anthony Pace had observed that the chosen landscape setting for the prehistoric temples reveals that most of monuments on Malta ‘are located within easy distance of the coast, or else in strategic locations close to main valleys that also lead down to the sea’; more significantly, Pace highlighted that littorals ‘act as natural frontier zones linking an island’s interior with maritime resources and the external world’ (plate 2).\textsuperscript{31} Significantly, therefore, it appears that not only does the terrain located on the island’s periphery contain the megalithic structures, but more importantly that the over-arching interpretation of these coastal zones is that these structures lie at the intersection between the inner and the outer domains. Like Thorley and Gunn’s core definition of a sacred site, as mentioned earlier, this implies that the coastal zones pertaining to the Maltese prehistoric monuments were recipient of ritual practice endowed with sacred essence; in like manner to an \textit{axis mundi}, the littoral is a sacred space.\textsuperscript{32} Such conclusions towards the explanation of the connection between spirituality and space have been consolidated in the embracive work of theologian Belden Lane whose major contributions brought forward four instrumental tools with which he equips \textit{homo religiosus} so as to ‘clarify the elusive character of sacred space’.\textsuperscript{33} The following universal principles are: a) sacred place is not chosen, it
chooses; b) sacred place is ordinary place, ritually made extraordinary; c) sacred place can be trod upon without being entered; d) the impulse of sacred place is both centripetal and centrifugal, local and universal.

Another extensive investigation which reflects the relevant themes pertaining to this discussion is that which was conducted by anthropogeographer Ellen Churchill Semple (1863-1932), who in 1926 recorded one hundred and seventy-five promontory temples, including the twenty headlands deemed sacred by the ancients. The implication of such a collection of data is indeed a powerful indication of the religious significance of the liminal coastal regions of the Ancient Mediterranean; these shrines and cave-sanctuaries communicated their importance to the ancient seafaring rituals as reflected in their geographical distribution, stretching across the tip of the Sinai peninsula in the Egyptian Red Sea to the western-most edges of Cape Finisterre in Portugal.

Landscapes and the Art of Narrative
As mentioned earlier, Christopher Tilley’s innovative model of interpreting

the landscape now forms part of a growing body of academic literature debating
its cognitive expression. In recent decades the academic concern relating to
humankind’s relationship to their environment has been on the increase, and the
multi and interdisciplinary approaches reflect the holistic approaches that are
being employed, as voiced in the work of anthropologist Tim Ingold,\textsuperscript{36} and
maritime archaeologist Christer Westerdahl, to name a few.\textsuperscript{37} Correspondingly, in
the study of monuments, prehistorian Richard Bradley\textsuperscript{38} built his argument on the

\begin{itemize}
  \item Tim Ingold, \textit{The Perception of the Environment: Essays on Livelihood, Dwelling and Skill}
  \item Christer Westerdahl, ‘Maritime Cosmology and Archaeology’, \textit{Deutsches Schifffahrtsarchiv},
  28 (2006), 7-54.
\end{itemize}
relevance of the etymology of the word ‘monument’, which derives from Latin *monere*, meaning ‘to remind’. In his treatise on the past in prehistoric societies, he pointed out how ‘monuments lead double lives’ in so much as when their construction takes place, they are ‘directed towards the future’.

Indeed, the last few decades have yielded several innovative interpretative models with which to explain the prehistoric landscape, nonetheless, the Maltese archipelago’s insularity and idiosyncrasy of its temple structures are still being debated in the academic arena. Amongst the most important contributions brought forward by archaeologists are those presented by scholar John Robb. In his treatise on the prehistoric Maltese Islands, he favoured the notion of this boundary-defined island community that is consciously and actively committed to a deliberate ‘construction of insularity’, with the aim of ‘fashioning [local] identities’; the other theory is that of archaeologist Cyprian Broodbank, who claimed that the local population culturally constructed their insularity which in turn reflected ‘a domain of active social contention and manipulation’, ringed within a sea whose ‘role can vary from that of insulator to hyper conductor’.

**Light – An Experiential Perspective**

In accordance with the above arguments, it is not unimportant to consider the vital importance of the major role that light plays in the life of *homo religiosus*. In her explorative journey on the role of light and sacred landscapes, geographer Barbara Weightman (1939-2012) stated that ‘the phenomenon of light clarifies sacred space [for] it is expressed and understood in religions and belief systems in innumerable ways (plate 4)’. In a parallel fashion, in his powerful book ‘Being Alive’, Ingold explained that it is through the experience of light that ‘the relation between visual perception and the weather’ comes alive, thus creating an opportunity ‘to be caught up in the substantial flows and aerial fluxes’ which he called ‘the weather-world’ (plate 5). Light, therefore, as masterfully expressed in

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40 Bradley, *The Past*, p. 82.
41 Grima, ‘Late Neolithic Malta’, p. 48.
43 Robb, ‘Island Identities’, pp. 177, 192, 195-196
Abbot Suger’s twelfth century St Denis, is that most vital ingredient; as pointed out by Ingold, ‘though we do not see light, we do see in light’ (plate 6).\(^{47}\) As a result, the experience of the sacred space of the liminal littoral entails standing between the elements: earth, air, water, and fire in the sky, namely what Ingold called ‘that multisensory experience of being out in the open’.\(^{48}\) Mediated through the human ‘experiential perspective’, as suggested by geographer Yi-Fu Tuan, ‘man’s uniqueness lies in his special capacity for thought and reflection’\(^{49}\) in combination with the ‘participation by the discerning eye and mind’.\(^{50}\) Through a similar experience of the indented coastal regions, the Maltese littoral, like all the shorelines framing the land, is an everlasting source of interconnectedness, a liminal stepping zone into the sacred, where the encounter with the world, following the phenomenology of Maurice Merleau-Ponty (1908-1961), ‘is a philosophy which puts essences back into existence […] endowing that contact with a philosophical status.\(^{51}\) Like an Impressionist painter bathed in Ingold’s weather-world, resolved on channelling a moment, Merleau–Ponty viewed and absorbed, and while engrossed in his surroundings, interacted and experienced

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\(^{47}\) Ingold, *Being Alive*, p. 96.


\(^{50}\) Tuan, ‘An Experiential Perspective’, p. 161.

them through the instrument of perception, his body (plate 7).\textsuperscript{52} This dynamic experience of the senses with the mind can thus be linked to the ‘indigenous lifeworld’ ethnographically known as animism.\textsuperscript{53} Anthropologists such as Fiona Bowie,\textsuperscript{54} Freya Mathews,\textsuperscript{55} Tim Ingold\textsuperscript{56} argued that humankind resorts to and interrelates with the surroundings ‘as biological and social beings’;\textsuperscript{57} similarly, Mathews and Ingold have coined the terms ‘web of ties’ and ‘web of life’ where the world is ‘forever on the verge of the actual’;\textsuperscript{58} analogously to the dynamic littoral, it is the ‘meshwork of interwoven lines’.\textsuperscript{59} Moreover, these views on animism are also shared by philosopher and ethnographer David Abram who recognized animistic sensitivity as bi-directional, namely, that ‘not only are we

\begin{footnotes}
\textsuperscript{52} Maurice Merleau-Ponty, \textit{The Primacy of Perception: And Other Essays on Phenomenological Psychology, the Philosophy of Art, History, and Politics} (Northwestern Univ Press, 1964), pp. 159-190.
\textsuperscript{53} Ingold, \textit{Being Alive}, p. 63.
\textsuperscript{57} Fiona Bowie, \textit{Anthropology of Religion}, p. 107.
\textsuperscript{58} Ingold, \textit{Perception of the Environment}, p. 11.
\textsuperscript{59} Ingold, \textit{Being Alive}, p. 63.
\end{footnotes}
sentient beings observing the sensible ‘outside’ but that we are also sensible beings observed by the sentient world out there (plate 8).’

To conclude, therefore, aided with the theoretical tools of various disciplines, this paper has attempted to show how, to *homo religiosus*, the topography of the seashore is a spatiotemporal intersection which is pregnant with religious, cosmological, social and ecological symbolism, a fluid plane where the sacred is revealed and experienced. As also attested by the mortuary rituals of past maritime societies and the topographic features that mark the contours of the Maltese Islands’ coastal areas, the traditions and ideologies of maritime societies of past, present and future entwine. Through the presented corpus of data, the evidence provided has thus shown that the liminality of the littoral indeed fulfils the criteria for the embodiment of sacred space, for the liminal seashore is a multidimensional edge where the creation of a passage into the sacred comes into being.

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Magdalenenberg: an examination of archaeological and archaeoastronomical interpretations of a Hallstatt period burial mound

by Melanie Sticker-Jantscheff

Using the example case of the Hallstatt period burial mound of Magdalenenberg in Villingen, Germany, this essay contrasts the results from state and academic archaeological research with the contested archaeoastronomical hypotheses of the archaeologist Allard Mees. Drawing on the published research, personal interviews with Mees and with the archaeologist and media scholar Stefanie Samida, one of the authors of a booklet refuting his interpretation, as well as the symposium and panel discussion in May 2014, I argue that in the case of Magdalenenberg reservations against archaeoastronomy by archaeologists are due to obvious methodological and argumentative weaknesses of Mees’ work on the one hand and a general lack of academic level discussions about archaeoastronomy on the other. These two causes are mutually dependent.

Introduction

The burial mound of Magdalenenberg is situated at the eastern periphery of the Black Forest near the town of Villingen-Schwenningen in Germany (Figures 1 and 2).¹ It has been fully excavated from 1970-1973 and with its diameter of 102m is one of the largest known burial mounds from the Hallstatt period in Central Europe.² This essay will contrast the results from state and academic archaeological research on the site of Magdalenenberg with the archaeoastronomical interpretation of the provincial Roman archaeologist Allard Mees from the Römisch-Germanisches Zentralmuseum (RGZM) in Mainz, Germany. When Mees published results of his follow-up examinations, claiming

an alignment towards lunar standstills, a function as a calendar and an arrangement of the burials such as to depict constellations of the northern hemisphere sky, he received widespread and positive public media attention. However, within German-language prehistoric archaeology he caused the
ongoing debate on the validity of archaeoastronomical methodology as a whole to reach a climax.³ On the basis of published research and opinions, personal interviews with Mees and one of the archaeologists refuting his interpretation, the first academic symposium on the topic which took place in Villingen on 23 May 2014 and my own impressions from the site, I will argue that the opposition against the archaeoastronomical interpretation of Magdalenenberg by prehistoric archaeology has largely two reasons which are mutually dependent: methodological and argumentative weaknesses of this interpretation and the lack, in the German-speaking countries, of academic level research and teaching of archaeoastronomy in general.

In the English-speaking world, scholars like Clive Ruggles and more recently Fabio Silva in Great Britain and Anthony Aveni in the United States have added much to the academic debate on the role of archaeoastronomy within the field of archaeology.⁴ As astronomers or astrophysicists they know about, in Ruggles words, ‘the need to be scientifically rigorous in assessing [one’s hypotheses] against the actual evidence’ but as archaeoastronomers they are also aware that alignment measurements alone remain completely meaningless without ‘humanistic influences [and the ] context with local cultures and landscape’, as the astronomer Daniel Brown said recently.⁵ Or as Silva argues, ‘archaeoastronomy should become more of a “skyscape archaeology”’, incorporating the phenomenological approach of landscape archaeology into its alignment-based framework.⁶ Such an integrative approach was not created


⁶ Silva, 2014a, p. 4.
overnight but has been achieved after decades of contentions, as both Ruggles and Aveni provide evidence for.⁷

Methodology

Using the site of Magdalenenberg as a case in point to evaluate the state of affairs between archaeology and archaeoastronomy in Germany, I did not want to solely rely on the published literature. My motivation for conducting interviews for this project was to be able to ask specific questions with regard to the

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published literature but also to get to know the opponents personally. The interviews took place about one month prior to the symposium.

I met Mees at his working place in Mainz where we talked for two hours. The archaeologist Manfred Eggert, professor emeritus at the University of Tübingen and together with the archaeologist and media scholar Stefanie Samida co-author of a polemic paper refuting amongst other things, Mees’ theses, had declined my request for an interview, stating that in his opinion ‘people working in [archaeoastronomy] are mostly fantasists’ and that he is not interested in the subject anymore.\(^8\) Samida for her part agreed for an interview and we met for forty-five minutes in a café in Berlin. Martin Bartelheim, professor for prehistoric archaeology in Tübingen and whom, as the person moderating the panel discussion at the symposium, I had also contacted beforehand, did not answer my request. Concerning my own position as interviewer I decided on as much neutrality towards the personal opinions of my interview partners about each other as possible, being aware of the impossibility to do research ‘in a totally objective manner, devoid of presuppositions’, as sociologist Alan Bryman paraphrased Egon Bittner.\(^9\) My own attitude, shaped by reading the published work, influenced my choice of questions and the semi-structured interview style which provided space for expansion of responses or digression from questions: my questions to Mees focused on the methodology and argumentation used by him whereas my questions to Samida were intended to illuminate her general motivation to write a polemic paper instead of a research article.\(^10\) Both interviews were fully transcribed and the transcription sent to Mees and Samida, respectively, for their approval.

**Konrad Spindler’s excavation and the interpretation by Renate Meyer-Orlac**

The excavation report, published in six volumes by Konrad Spindler between 1971 and 1980, documented meticulously the location of each single burial and wooden post with regard to its position in relation to the tumulus centre (Figure 3 shows the later, slightly adapted site plan by Renate Meyer-Orlac).\(^11\) Regarding the arrangement and orientation of the 136 secondary burials

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\(^8\) Manfred Eggert, personal e-mail from 7 April 2014 [original text: ‘dieses in starkem Maße von Phantasten bearbeitete Feld’; my translation].


forming two semicircles around the so-called ‘Fürstengrab’ (a contested term\(^\text{12}\) which can be translated as either princely or chieftain’s grave) in the centre, with the burials’ heads clockwise in the northern and eastern part of the tumulus and counter-clockwise in the southern and western part, Spindler writes: ‘[A]ll burials are oriented strictly tangential within the tumulus. Therefore, the dead were not buried in alignment with any cardinal direction but with respect to the

construction of the mound orthogonal to the radius.’ Spindler was convinced that between ten and thirty burials in the central part of the mound had been destroyed before his excavation, mainly by erosion processes, an assumption he attests by a detailed description of the mound’s profile.

The five rows of wooden poles, arranged in a radial fashion and numbered I to V, are described by Spindler as ‘particularly enigmatic findings’ for which ‘no meaningful function for the building of the mound [can be] allotted’. While pole rows I, II, IV and V share the same construction type and are made from fir, spruce and beech trunks, pole row III looks completely different. It is the only pole row made from oak trunks, oak other than that only used for the building of the central burial chamber. The excavators assumed a connection between pole row III and a feature they termed ‘processional way’, a way parallel to pole row III, marked by timber and leading from the south of the tumulus towards its centre and suggested that this might have been the way along which the deceased ruler was brought into the burial chamber. Since the wooden poles had only been preserved underneath the surface of the mound, in later archaeological publications there is some controversy around their original length. Matthias Jung for example doubts their visibility above ground based on his obviously very subjective opinion that such poles would be ‘irritating and disturbing to the symmetry of the mound’ but at the same time states his inability to provide any ‘convincing functional explanation’. The only article aiming at an interpretation of both the orientation of the burials and the rows of wooden poles in a coherent functional relation was published in 1983 by Renate Meyer-Orlac. Meyer-Orlac concludes a height of the wooden poles above ground up to several metres, based on their diameter and, for rows I and II, a construction type which suggests stabilisation against some pressure from a Western direction, in her opinion most likely the wind. Meyer-Orlac observed that extended lines from pole rows I and II would meet in the southeastern corner of the central burial chamber and that an


15 Spindler, VI, 1980, p. 144-147.


18 Spindler, VI, 1980, p. 174, 156.


20 Meyer-Orlac, 1983.

extended line from pole row IV would provide the bisector of the angle between pole rows I and II.\textsuperscript{22} In addition she noted that pole row II in the northwestern part of the mound and its extended line in the southeastern part mark the division between the two semi-circles of secondary burials, whereas pole row I points towards the settlement site Kapf, dated as being contemporary with the building of Magdalenenberg.\textsuperscript{23} All in all Meyer-Orlac interprets the arrangement of burials as a ‘compromise solution [between] two focal points, one being the central burial, the other the northwestern horizon, land of the dead, deity, sanctuary of the living, whatever.’\textsuperscript{24} For the next twenty years no research seems to have been published extending these ideas, although they clearly point beyond Spindler’s merely descriptive work.

The archaeoastronomical interpretation by Allard Mees

When Mees’ article was published in 2011 in the RGZM \textit{Jahrbuch} 2007 and in parallel as a special reprint and accompanied by a RGZM press release, it received widespread media attention and within German-language archaeology opened a heated debate about the justification of archaeoastronomical methodology within archaeological research.\textsuperscript{25} Mees postulates two hypothesis which he combines to propose a calendrical function of the site: first, an arrangement of the burials such as to depict the starry sky, and second, an alignment towards lunar standstills, formed by an imaginary line separating the two semicircles of burials underground and the five pole rows above ground (Figure 4).\textsuperscript{26} Mees recognizes the following constellations: Ursa minor, Draco, Ursa major, Bootes, Corona Borealis, Serpens Caput, Hercules, Lyra, Sagitta, Cygnus, Delphinus, Cepheus and Cassiopeia, all depicted in an ‘astronomically correct relation’ and as they, in his opinion, could have been observed in the sky in the year 618 BCE around winter solstice before sunrise and around summer solstice after sunset.\textsuperscript{27} Mees refutes Spindler’s conviction that there must have

\textsuperscript{22} Meyer-Orlac, 1983, pp. 15.
\textsuperscript{23} Meyer-Orlac, 1983, pp. 15-16.
\textsuperscript{24} Meyer-Orlac, 1983, pp. 16 ['So wäre vielleicht in der Anlage des Bestattungsplans eine Kompromisslösung zu erkennen: Die Orientierung der Bestattungen wäre gewissermassen eine Art Resultante zwischen zwei Magnetfeldern, dem einen des zentral bestatteten Toten und dem anderen im Nordwesten, Totenland, Gottheit, Heiligtum der Lebenden, was auch immer.' My translation]
\textsuperscript{26} Mees, 2007.
\textsuperscript{27} Mees, 2007, p. 220-222 ['Die Zahl der Gräber stimmt nicht mit der heute offiziellen Zahl der Sterne eines einzelnen Sternbildes überein’, ‘einen astronomisch korrekten, relativen Bezug zueinander’; my translation].
been more burials in the centre by stating: ‘Since all at the time of summer solstice visible constellations are represented [...] it is not to be assumed that there had been more burials in the centre’. As an explanation for the depiction of exactly these constellations Mees assumes intellectual influences from Mediterranean (specifically Greek) culture, calling it ‘a starry sky in Greek tradition’.

Mees’ argumentation is highly problematic for several reasons: Firstly, the argumentation is circular; that which needed to be demonstrated is used as evidence. Secondly, the question of how and by what means people could have followed through on such a plan for an assumed period of usage between 20 and 70 years – depending on the method used for dating - is not even posed. Thirdly, Mees tries to support his hypothesis by the connection with Greek culture. However, celtic star myths might have existed in the Hallstatt period unrecorded and constellations like Ursa major or Draco are likely to be much older and were

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29 Mees, 2007, p. 222.
30 Julia Koch, presentation at the Magdalenenberg-Symposium, Villingen, 23 May 2014.
known in both Eurasia and North America possibly as long as 10 000 BCE in the case of Ursa Major, as Bradley Schaefer argues.\textsuperscript{31} Therefore, with Mees’ hypothesis, the ultimate question is not so much if people considered stars and constellations as important \textit{in the sky} but if they \textit{depicted} the stars or constellations \textit{on earth} and in which form and why they would have done so. To this end, Mees can provide no evidence. In two later publications Mees essentially repeats his starry sky hypothesis, adding that the depiction needs to be interpreted symbolically.\textsuperscript{32} As an example he mentions the constellations of Draco and Ursa minor which in his opinion, with regard to their actual position in the sky, intentionally had been moved towards the edge of the mound, in order ‘to provide the chieftain in the middle with an unobstructed view into the sky’.\textsuperscript{33} When asked about this point in the interview, Mees answered that he would consider it ‘presumptuous to be buried atop a chieftain’.\textsuperscript{34} The argumentation aims at countering criticism supported by Spindler’s erosion theory but since it is only based on Mees’ subjective opinion it cannot be called more than pure speculation. Nevertheless I would like to add one observation which Mees does not mention: provided that stars or constellations are indeed depicted – which at this point remains speculative – a division into two groups corresponding to the two semi-circles of secondary burials can be noticed: the stars and constellations of the northeastern half would be circumpolar whereas the ones of the southwestern half could be seen rising and setting with respect to the horizon. Though at the recent symposium the starry sky hypothesis has remained decidedly refuted by the attendant archaeologists based on a lack of material evidence and the absence of a statistical approach for deviation measurements, one should also bear in mind that nonconformance to our modern Western requirements for accurate depiction would not necessarily disprove the hypothesis.\textsuperscript{35}

In addition to the starry sky hypothesis Mees also claims a lunar standstill alignment of the secondary burials and wooden pole rows. In a footnote he points

\begin{footnotesize}
\begin{itemize}
  \item \textsuperscript{33} Mees, 2012, p. 52 [original text: ‘so dass der Fürst in der Mitte einen freien Blick in den Himmel hatte’; my translation]
  \item \textsuperscript{34} Interview with Allard Mees on 24 April 2014 [original text: ‘ich halte es auch für vermessen, wenn ich mich selbst oberhalb eines Fürsten bestatte’].
  \item \textsuperscript{35} Ruggles, 2011, p. 5.
\end{itemize}
\end{footnotesize}
out that ‘unfortunately gross measuring errors can be observed in the excavation plans’, leading to an uncertainty of up to seven degrees with respect to the orientation of true north.\textsuperscript{36} Mees follows the orientation used by Meyer-Orlac in 1983.\textsuperscript{37} He says:

‘Pole row I itself aims at azimuth 150°, the ditch between pole row I and II [...] aims at the major lunar standstill at azimuth 136°, and pole row II is connected to the minor northern lunar standstill. Pole rows IV and V are oriented towards the minor southern lunar standstill at azimuth 299° and the major southern lunar standstill at azimuth 317°, respectively. Calculations show that the bisector between pole rows IV and V are oriented towards winter solstice at azimuth 306°.\textsuperscript{38}

According to Mees pole row III was used as a line of sight to capture the full moon at its highest position after summer solstice in the major lunar standstill year 618 BCE, ‘an indication that people at the time were not yet able to measure astronomical lunar standstills correctly in a modern sense’ and the other pole rows as sight lines for the moon’s rising and setting.\textsuperscript{39} Apart from the fact that a dating to 618 BCE contradicts the dendrochronological dating which assumes a building start late in the year 616 BCE (one of the wooden poles of row II indeed had been dated to 618 BCE but the authors made clear in the same publication that this piece of data is ambiguous and therefore settled on 616 BCE as the building start date) Mees indiscriminately mixes rising and setting of the moon, major and minor lunar standstills, winter solstice, pole rows and the ditch to illustrate alignments which for him seem already to be obvious.\textsuperscript{40}

Concerning the dating, Mees in a later publication corrected himself, pointing out that he assumes

\textsuperscript{36} Mees, 2007, p. 225 [original text: ‘Unglücklicherweise sind in den publizierten Grabungsplänen grobe Vermessungsfehler feststellbar’; my translation].

\textsuperscript{37} Mees, 2007, p. 225; note: Mees is using a south azimuth, therefore true north equals 180° in his publications.


\textsuperscript{39} Mees, 2007, p. 230 [original text: ‘Das Vorhandensein einer Visierlinie in Richtung Süden ist ein deutliches Indiz dafür, dass man damals noch nicht in der Lage war, die astronomische Mondwende im modernen Sinn korrekt zu erfassen.’; my translation].

an alignment towards lunar standstills in general rather than one specific lunar standstill.\textsuperscript{41} As with the starry sky hypothesis, he does not distinguish properly between facts and interpretation, that is orientation of the pole rows expressed as azimuth values and postulated alignments with astronomical observations. Also, without a clear definition of the term, Mees defines Magdalenenberg as a ‘Kalenderwerk’, that is an object or building with a calendrical purpose; in fact he uses this term for almost any other archaeological site displaying an astronomical orientation and dating from the Neolithic to Classical Greece.\textsuperscript{42} In his conclusion and also a later article Mees speculates about a sacral function of the ruler buried in the centre of the mound and that ‘the entire complex as calendar defines the yearly structure for his people’.\textsuperscript{43} It remains obscure however in which way this might be related to the material findings as well as the astronomical alignments.

\textbf{Objections against the archaeoastronomical interpretation}

The calendar hypothesis, not only with regard to Magdalenenberg but also to other prehistoric sites and findings, became the focus for the archaeological master’s thesis by Claudia Rohde in 2012, done under the supervision of Christoph Huth of the University of Freiburg, and, as Huth states in the preface, aiming at starting a scholarly debate on ‘calendars in prehistory’ and correcting ‘the public image of [prehistoric archaeology], which is increasingly influenced by archaeoastronomy’.\textsuperscript{44} Restricting her examination to a selection of German-language articles – Rohde distinguishes articles published by archaeologists, astronomers and individuals with other or unknown professional background - Rohde observes an increasing tendency to search for calendars in prehistory in order to prove cultural progressiveness and scientific sophistication and to sensationalise research findings. Her impression of the usage of the term ‘calendar’ in the publications examined shapes her definition of the term: a calendar is an ‘exact measuring instrument for the precise determination of a day within the course of a year’.\textsuperscript{45} Rohde then demonstrates the implausibility of the

\textsuperscript{41} Allard Mees, ‘Die Kelten und der Mond: Neue Forschungen am Magdalenenberg’, \textit{Antike Welt}, Vol. 6 (2012), pp. 52-54 [hereafter Mees, 2012].
\textsuperscript{42} Mees, 2007, pp. 243-249.
\textsuperscript{45} Rohde, 2012, p. 12.
burial mound of Magdalenenberg ever being used as a calendar. She demands: ‘Alternative interpretations for all the objects mentioned must not be made since further meaning cannot be constructed from the archaeological record. The proper meaning of certain objects is and remains hidden’.

At the same time she agrees that consideration of astronomical phenomena with regard to archaeology might be useful to gain insight into the ‘mythic-religious’ belief systems of ancient peoples – if it is done ‘using very strict standards and great caution’.

With these somewhat contradictory statements the intention of Rohde’s thesis remains unclear. Her thesis title promises to separate ‘facts’ from ‘fiction’ but her sometimes justified criticism of archaeoastronomical research falls short against a general impression that her main interest is not so much a discussion about definition and usage of the term calendar but a refutation of archaeoastronomy as ‘fiction’. When Rohde declares that ‘interest [of prehistoric people] in determining annual cycles likely was not scientific-astronomical but mythic-religious, that is, astrological’ she fails to notice that this kind of mutually exclusive categorisation was not present in prehistory.

As Colin Renfrew and Iain Morley recently stated: ‘The measurement of time, in particular, involving astronomical observation and systematic contemplation of the cosmos, often became involved with formulations conceiving of the universe and of the spiritual or religious forces postulated as motivating it’. Simply put, one might also say that historically science and spirituality/religion share the same root: observation and contemplation of nature and the cosmos. Accordingly, usage of a calendar might be motivated by both at the same time.

While Rohde’s work can still be called a scholarly contribution to an academic debate, regardless of its weaknesses and whether one agrees with it or not, Samida and Eggert’s booklet is polemic by design, as Samida freely admitted during the interview. This is so much the more surprising as the authors

46 Rohde, 2012, p. 50 [original text: ‘Eine alternative Deutung zu allen genannten Objekten muss ausbleiben, da weitreichende Deutungen aus den archäologischen Fakten nicht zu erschliessen sind. Der eigentliche Sinn bestimmter Objekte ist und bleibt uns verborgen’; my translation].
48 Rohde, 2012, p. 54 [original text: ‘Das Interesse an der Bestimmung der Jahreszyklen war vermutlich nicht wissenschaftlich-astronomisch, sondern mythisch-religiös – also eher astrologisch’; my translation].
elsewhere argue objectively and based on evidence, and Eggert in the last twenty
to thirty years has been leading in contributing an immense amount to the
theoretical debates in prehistoric archaeology in Germany, especially with regard
to the English-language discussions in the field.\textsuperscript{51} Nonetheless, in the polemic
paper the authors champion two theses: a new ‘positivistic-scientistic paradigm’
within archaeology, as well as ‘disturbing tendencies towards pseudo-religious
and esoteric interpretations’ of prehistory.\textsuperscript{52} Positivism and scientism have been
reproaches addressed to the so-called ‘New Archaeology’ or ‘Processual
Archaeology’ which in the 1960s first introduced scientific methodologies, for
instance acquisition of quantitative data and requirement for testability of
hypotheses, into archaeology which before that time had solely relied on the
descriptive methods of history.\textsuperscript{53}

When asked in the interview to better explain why, in her polemic, she on
the one hand stresses the importance and benefit of scientific methodology for
archaeology and even calls for more interdisciplinary research but on the other
hand criticises the same methodology as being positivistic and scientistic, Samida,
after again emphasising the importance of science for archaeology, said ‘it cannot
be that the data delivered [by scientists] is just blindly accepted. I need to
understand how one arrived at the results, what kind of problems exist within the
methodology [...], things I might not be aware of as an archaeologist‘.\textsuperscript{54} She
continued: ‘but often, in my impression, the perception is that we receive the data
and that these are as good as “safe”. They are true, and correct, and we can rely
on them one hundred percent, everything is perfect. And I think this is a

\textsuperscript{51} As latest example: Manfred K. H Eggert and Ulrich Veith, \textit{Theorie in der Archäologie: Zur
jüngeren Diskussion in Deutschland}, Tübinger Archäologische Taschenbücher, Vol. 10
(Waxmann, 2013).
\textsuperscript{52} Samida and Eggert, 2013, Summary on back.
\textsuperscript{53} Colin Renfrew and Paul Bahn, \textit{Archaeology- Theories, Methods and Practice}, 6th edition
Archaeology’, in Colin Renfrew and Paul Bahn (ed.), \textit{Archaeology – The Key Concepts
(Routledge, Oxon, 2005), pp. 212-219.}
\textsuperscript{54} Interview with Stefanie Samida on 3 May 2014 [original text: ‘dass es nicht so sein darf,
dass man diese Daten, die uns dann geliefert werden, einfach blind übernimmt. Ja, ich
muss ja auch verstehen, wie ist das Ergebnis zustandegekommen, welche Probleme gibt es
innerhalb der naturwissenschaftlichen Methodik, ja ...mmh ... die ich vielleicht gar nicht als
Archäologe wissen kann‘; my translation].
Samida’s answer indicates that a general feeling of inadequacy towards scientific methodology and the inability to interpret scientific results by themselves contributed to the authors having resorted to pettishness and polemics instead of initiating an academic debate on the topic. It is true that without knowledge of scientific approaches and methodology it is not possible to critically evaluate and comment on the results obtained by such methodology. Methods like DNA and isotope analysis however, can only be performed in specialised laboratories by professional experts in their field which might make results appear irrefutable to people from other disciplines, including many archaeologists. In contrast to this, archaeoastronomy lacks the formal status of an established academic discipline and attracts people of diverse educational and professional backgrounds – as has been shown for Germany by Rohde. Therefore it constitutes a much easier target for criticism. In addition, archaeoastronomers themselves quite often seem not to be aware that their discipline is a hybrid in need of knowledge and methodology of both its mother-disciplines archaeology and astronomy, with the consequence of methodological shortcomings leading to research being completely refuted.

With regard to Mees’ interpretation of Magdalenenberg Samida and Eggert’s main criticism focuses on the RGZM press release with its unprofessional and misleading headline (in the authors’ opinion) ‘Early Celtic “Stonehenge” discovered in Black Forest’ and ‘methodological weaknesses’ as Mees’ use of the term calendar and the lack of discussion of alternative interpretations. Whereas archaeology’s use of and relationship with the media and the public would need a more in-depth examination, this essay clearly shows that the second charge is a valid point of criticism which indeed should be discussed. It seems at first surprising why then there is no practical examination of the astronomical alignments claimed by Mees though these are at the bottom of his thesis. In light of what has been said above, this omission becomes more understandable: most likely Samida and Eggert, together with the majority of archaeologists, lack the astronomical knowledge which would have enabled them to critically evaluate Mees’ thesis on the basis of factual evidence.

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55 Interview with Stefanie Samida on 3 May 2014 [original text: ‘aber häufig, ist mein Eindruck, wird es so wahrgenommen, wir bekommen die Daten geliefert und die Daten sind dann ‘safe’, sozusagen. Die sind richtig, und korrekt, und da können wir uns hundertprozentig drauf verlassen, und alles ist gut. Und da denke ich, ist halt ein Problem’; my translation].
The Magdalenenberg-Symposium in May 2014

The recent symposium ‘Archaeoastronomy and Archaeology – Pros and Cons’ which took place in Villingen on 23 May 2014 and was organised by the State Office for Cultural Heritage Baden-Wuerttemberg and the Franziskanermuseum Villingen-Schwenningen, brought together archaeologists and archaeoastronomers in discussion for the first time. 58 Two archaeologists presented recent research findings: Julia Koch on the societal structure of the people buried on Magdalenenberg as it can be interpreted from a comparison of isotope analysis of the burials, revealing their geographical background, with a typology of funerary goods; and Thomas Knopf on a settlement analysis of the larger geographical area during the Hallstatt period leading to, in his words, a ‘relativisation’ of the site. 59

In his presentation Mees concentrated on the division of the secondary burials into two semi-circles which, as he said, can also be found in other tumuli from the same period in France, Germany and also Slovenia and which in his opinion can best be explained by an orientation towards lunar standstills, whereas Bruno Deiss, an astrophysicist who in 2006 provided evidence of a major lunar standstill orientation of the site of Glauberg near Frankfurt (Main), a hypothesis since accepted among archaeologists, exercised self-criticism with regard to the interpretation of sacral structures as calendars in the sense they are used today which Mees at the later discussion round agreed on. 60 At the same time Deiss pointed to archaeologists’ unreflected use of the term ‘observatory’ in advertising the site of Goseck in Saxony-Anhalt and the apparent lack of awareness of the importance of accurate documentation of north referencing during excavations. 61 In the last presentation, archaeologist Ines Balzer from the museum and research center ‘Keltenwelt am Glauberg’ illuminated the area of

conflict between archaeological research findings and their public presentation for touristic purposes, a topic of discussion also in Villingen where the opening of an educational trail around the site of Magdalenenberg was decided on in 2013. In his summary, Dirk Krausse who as the representative of the State Office for Cultural Heritage chaired the event, stressed that criticism of archaeoastronomy by archaeologists pertains to methodological issues and that there is no general objection against interpretations based on alignments towards astronomical events like solstices or lunar standstills. The educational trail with seven information boards and one row of wooden poles as illustration was officially inaugurated on 14 September 2014 (Figure 5). One of the boards shows the site

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63 Magdalenenberg-Symposium on 23 May 2014, my notes.

Impressions from visiting Magdalenenberg

What is important therefore and apparently has not been done up since the publication of Meyer-Orlac, is a discussion of alternative explanations for the observed southeast-northwest orientation. In his 2011 publication Mees mentions the view of the Alps which ‘might have figured in choosing this location’ but instead of providing an account of the landscape as visible from Magdalenenberg he immediately focuses on the sky and designates the location ‘ideal for observing celestial phenomena on the southeastern horizon’. In the interview he confirmed this statement and with regard to pole row I which cannot be explained with his hypothesis he added, contradicting Meyer-Orlac, that ‘the northwestern direction is of no interest at all’, for which reason in his view an accurate alignment had not been considered important. Here again it seems that personal bias influenced Mees’ interpretation.

I first visited the site myself on 23 March 2014, a cold day with grey clouds hanging rather low, and a second time on 24 June 2014. The Alps, 120km distant, could not be seen on both days, as they probably cannot on many days during the year due to meteorological conditions. Still, it was the southeastern horizon that caught my interest immediately: while there is no view towards the east because the burial mound is situated on the western end of a ridge, at azimuth 135° the silhouette of the 845m high Wartenberg, the most northern of the Hegau vulcanoes, can be seen, and at azimuth 153° the Fürstenberg with 910m elevation, a mountain of the southwest-german escarpment landform (Figure 6). The distance to both mountains is only about 20 km and on Fürstenberg a celtic hilltop

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65 Visit of Magdalenenberg on 16 Oct 2014 [original text: ‘Eine neue These will die Holzkonstruktionen auf die Mondwenden ausgerichtet sehen’; my translation].
66 Mees, 2007, p. 220 [original text: ‘Bei der Wahl des Ortes hat wohl auch der weiträumige Blick auf die Alpen eine Rolle gespielt [...], der Ort war daher vor allem für die Beobachtung von Himmelserscheinungen am südöstlichen Horizont geeignet’; my translation].
67 Interview with Allard Mees on 24 April 2014 [original text: ‘nicht in Richtung Nordwesten, das ist völlig uninteressant [...] es ist nicht so relevant, dass es da nicht stimmt’; my translation].
68 Position measured with a hand held GPS: latitude 48.044367 N, longitude 8.4436 E, elevation 771m; azimuth values given in the text are measured with a Suunto compass; names of mountains confirmed with the website www.peakfinder.org.
settlement had been located. In about the same distance towards the northwest, approximately at azimuth 306°, the source of the Brigach is located, one of the source rivers of the Danube. There, in the 19th century during reconstruction work at a farmhouse, a stone relief was found which later has been dated to the Celtic-Roman period and is interpreted as indicating a spring sanctuary at this place. Past the confluence of the rivers Brigach and Breg, the Danube winds eastward in between Wartenberg and Fürstenberg and in about 70 km linear distance on a hill above its bank the Hallstatt period city Heuneburg was located, according to Krausse ‘the oldest city north of the Alps’ and possibly identical to the city of Pyrene mentioned by Herodotus.

Of course a further literature review is needed about the putative importance of the two mountains in the southeast, the source of the Danube in the northwest and the Danube in general during the Hallstatt period as well as research into how celestial phenomena, the sun, moon and stars, at the time might have related to the landscape surrounding Magdalenenberg. Also, to confirm or disprove the lunar standstill hypothesis convincingly the exact metric coordinates from the excavation would be essential; according to Krausse these should be available somewhere or else it might be possible to reconstruct the orientation with the help of aerial photographs done during the excavation. It is interesting that the Danube and its source river as seen from Magdalenenberg indicate a northwest - southeast orientation, therewith providing a possible context for the interpretation of astronomical alignments. As Silva, speaking about skyscape archaeology, put it: ‘archaeoastronomy looks up, whereas landscape archaeology [...] looks down and around, although they always meet at the horizon’.

Conclusion

Using the example case of the burial mound of Magdalenenberg in Villingen, Germany this essay contrasts its conventional archaeological interpretation with the contested archaeoastronomical hypotheses of Allard Mees.

72 Magdalenenberg-Symposium on 23 May 2014, my notes.
Drawing on the published research, personal interviews with Mees and one of the authors of a booklet refuting his interpretation, and the recent symposium and panel discussion, I argue that in the case of Magdalenenberg reservations against archaeoastronomy by archaeologists are due to obvious methodological and argumentative weaknesses of Mees’ work on the one hand and a general lack of academic level discussions about archaeoastronomy on the other. These two causes are mutually dependent. My own impressions from visiting the burial mound indicates the importance of including the surrounding landscape and horizon in discussion and interpretation of the site. Silva remarked that in the English-speaking world ‘archaeoastronomy has become an academic discipline [...] but in the process of (re)defining itself to withstand scientific scrutiny it lost its link to the wider archaeological and anthropological communities’. Taking the archaeological and archaeoastronomical interpretations of the burial mound of Magdalenenberg as a case in point, German-language archaeoastronomy can rather be seen at the point of struggling for academic recognition. To take this step, development of a methodology and concept living up to the expectations of both academic astrophysicists and prehistoric archaeologists seems to be absolutely essential and much work remains to be done. Events like the Magdalenenberg-Symposium in Villingen are first steps in the direction of an academic level discussion also in German language research: as an outcome of the research on Magdalenenberg the RGZM is going to include research on ‘orientation in space and time’ into its official strategy, providing room for consideration of astronomy within archaeological research.

Works cited


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74 Silva, 2014b, p. 3.


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Time and Eternity: Can sacred space change perception of time?  
by Ilaria Cristofaro

Prayers, rituals and meditations require a particular attitude of the individual. This particular condition is able to modify perception of reality and time’s flow. This theoretical research project starts from considering that sacred space is related with the attribution of a ‘centre’, as theorised by Mircea Eliade. Investigating this characteristic from a psychological perspective, the act of concentration may be the means by which individuals bestow a space with sacredness. Sacred space is argued to be a human construct here and ethnographical experiences report a suspension of the flow of time in sacred space. During psychical states of concentration, the stasis of the present moment seems to dilate the perception of time. The philosophical debate on the nature of time has enlarged the complexity of the question and this paper opens further research questions to consider how different levels of concentration may affect the perception of reality and bring the individual from a profane into a sacred world.

Introduction

This essay will critically examine if sacred space can change the perception of time. The research project is placed in a context of investigation debating if sacred space can be considered a human construct. Firstly, the examination will provide a definition of the perception of time distinguishing between mechanical and subjective time. Secondly, the investigation will deal with the concept of sacred space, in particular attempting to define the attitude of people in this kind of space. Thirdly, the concept of concentration will bring the discussion onto the changing of time’s perception. The attempt to provide a complete view about this topic is limited by the contested character that any attribution of sacred drags along. Moreover, the philosophical debate about the nature of time adds complexity to the analysis. This essay will consider the evidence arising from a literature review of key theorists using an ethnographical methodology based on reports of experiences in sacred space.

Mechanical and Subjective time

The flow of time on a clock moves at a steady rate and the time’s unities are originally derived from sub-divisions of astronomical periods of the Earth’s
motions. According to Enrico Bellone, during the long evolutionary process the human being has elaborated a concept of time as an objective quantity based on the periodical cycles of days and seasons. This conception found theoretical elaboration in Aristotle (c.384-322BCE), who affirmed that time cannot be slow or fast depending on place but it is always the same. A contrary idea was introduced by the physicist Albert Einstein (1879-1955), who elaborated the theory of relativity for which a universal time, unique for the whole universe, does not exist: each body has its own time. Since human beings remain stationary on the Earth they share the same time. Therefore clock-time is a convention established in order to have a practical and clear communication in society. For the philosopher Martin Heidegger (1889-1976), the clock doesn’t show time but quite the contrary. For Heidegger, the reckoning of time is more precise and there is less possibility to meditate on the real essence of time. It is necessary to distinguish between mechanical time, which is the standard time reckoned by clock, and subjective time, defined as the time perceived by the individual. The philosophical debate on the real nature of time was notably influenced by Einstein’s definition of time as a relative concept. Starting from an analysis on the theory of relativity, Bertrand Russell (1872-1970) defined time as a relation between points and asserted that ‘our own experience is governed by the proper time for our body’. Additionally, Maurice Merleau-Ponty (1908-1961) suggested that time is not a real and objective process but has a subjective character: it is generated from the relation between human being and objects. Conversely, for Jacob Needleman, the human inner sense of time is determined by the mechanical one and acted upon obeying to its rhythms. It can be argued that perception of time by human beings is relative to a perceived connection between subject and the situation experienced. However, if the object involved in this relation is a

clock, mechanical and subjective time will coincide. Indeed it seems that the continuous use of the clock accustoms to a notion of time as an objective and inalterable category. Whereas mechanical clock-time should be considered absolute only relative to the Earth’s surface.

**Perception of time**

The aim of the following paragraph is to provide an analysis of time’s perception in order to re-form it in a set of definitions. The psychologist Richard Block distinguished subjective time into succession, duration and temporal perspective. Succession is referred to as the perception of sequential occurrences. The second, duration, is related with the estimate of a lapse of time between two events. Finally, temporal perspective regards the distinction between past, present and future and how the individual experiences them.\(^\text{10}\) Firstly, Russell pointed out that succession depends on the time-relation between objects, since it is based on the notion of before and after. While duration and temporal perspective are related to the time-relation between subject and object.\(^\text{11}\) It can be argued that the order between cause and effect may be perceived differently by different people, as Carl Gustav Jung (1842-1896) pointed out. Therefore succession may convey the relation between multiple objects and subjects, not only between objects.\(^\text{12}\) The complexity of this discussion on succession involves the wide concepts of causality and synchronicity; this latter concept being a no known causal connection between events. Secondly the concept of duration is conceived by Henri Bergson (1859-1941) as the particular rhythm which characterizes the temporality of consciousness, or the inner reality. The elemental psychic state lasts for a specific time, although it is in perpetual becoming.\(^\text{13}\) For Bergson the inner life is reduced into a multiplicity of states following one another in a continuous flux and linked together by an element of static and eternal unity, since it is the substrate of any movement.\(^\text{14}\) Heidegger criticised Bergson for having defined time as a function of space, therefore failing to grasp its real essence.\(^\text{15}\) Indeed the conceptualisation of time in function of space is derived from Aristotle’s assertion that time is the measure of movement. This interpretation reflects the origin of

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time’s measurement in relation with celestial bodies’ motion. The main difference between Block and Bergson’s definitions is that Bergson interiorized duration as the fundamental element of the inner life, whereas Block considered it as the esteem of a lapse of time in respect to the duration reckoned by the clock. Following this investigation, the perception of time will be restricted in this essay, to an analysis of duration and temporal perspective: the former is defined as the perception of present time’s unity in the stasis of a particular psychical state, the latter as perception of past, present and future.

Sacred Space

The aim of the following section is to provide a definition of sacred space. It is necessary to investigate when the character of sacredness is associated to a determinate space and if this quality is absolute and objective. In this essay the term ‘space’ firstly involves both the notion of physical place, that is a site that the individual can access materially, and any abstract dimension, like the inner world. Secondly, the notion of sacred carries many attributions suggested by scholars; like ‘power’ by Gererdus Van der Leeuw (1890-1950), ‘holy’ by Rudolph Otto (1869-1937), ‘real’ by Mircea Eliade (1907-1986) and ‘eternal’ by Seyyed Hossein Nasr. Considering these qualities and the definition given by Eliade, the sacred will be identified here with the ultimate reality from where life takes force. After having defined the terms, the discussion can deal with the examination of sacred space. Jonathan Zittell Smith compared sacred space to a focusing lens, since a thing becomes sacred by being looked at a special way. He claimed that ‘there is nothing that is sacred in itself, only things sacred in relation’. In contrast Christopher Witcombe pointed out that there may be places that are intrinsically sacred due to drawing continuous worship from the earliest times. For example, Jualynne Dodson and José Millet Batista referred the dynamicity of some sacred sites to activate an interactive collaboration between human, natural and supernatural powers, although the participants did not request it. In this case it must be considered the expectation of participants to experience something not

16 Aristotle, ‘Fisica’, IV, 12, 220b24-221a2.
The evidence suggests that sacredness may seem to be an objective character of particular places, but this quality is brought into play by their historical tradition and by people’s attitude towards them. Supporting this argument, Arnold van Gennep (1873-1957) pointed out that the attribution of sacredness is not absolute but variable and brought into play by the characteristics of the situation. It can be noted that the sacred has a contested character, since every individual considered sacred a different space. Moreover, the presence at a determinate space is not enough for experiencing the holy, but involved a particular attitude of the individual, as Smith pointed out, by looking it in a special way.

Sacred space involved an act of concentration

Comparing different experiences’ and reports, the analysis will now examine what this special attitude is for the individual that participates in empowering a space of sacredness. For Roger Stump the interaction between body and sacred space involves a process of “religious concentration” for example in Buddhism where the practise of mental focus is primary for achieving divine inspiration. Furthermore, Stump pointed out that during prayer or meditation the mental concentration is fostered by bodily control achieved through specific poses, like kneeling for Christians or the Islamic sequence of prostrations in the Mecca’s direction. According to Ian Richard Netton the repetition of prayers is ascertained in the major world religions and their aim is to obliterate distractions from the reciter’s mind, and to focus concentration. An alternative view, suggested by Elémire Zolla (1926-2002), recalled the primordial wonder of the child as necessary disposition for the sacred experience. According to Maurice Friedman, spontaneity is the condition that Martin Buber (1878-1965) considered indispensable during a prayer and this interpretation is comparable with Galimberti’s one: the genuine and naïve condition of a human being opened to the world is the origin of all transcendental experiences. The following reports demonstrate that the ordinary attitude of the child, genuine and spontaneous, may presuppose the sacredness as ‘real’ but not as ‘power’.

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21 Dodson, Jualynne E. and José Millet Batista. *Sacred Spaces and Religious Traditions in Orient Cuba* (University of New Mexico Press, 2008), pp. 67-68.


character of sacred as ‘power’ is particularly evident during shamanic rituals. The description reported by Rachel Corr showed that only through a high concentration of his mind was the shaman able to receive the indications on which depended the success of the ritual. Smith claimed that the primary rule of the sacred place is to direct attention, while the ritual is a process for emphasising interest. He asserted that ‘a ritual object or action becomes sacred by having attention focused on it in a highly marked way’. The evidence suggests that there are many prayers and rituals practised in sacred space, but the main characteristic which unifies them is to predispose mind into a state of higher concentration. Every space has the potentiality to become sacred. It depends essentially on the individual, through which a state of higher attention has the possibility to transform a profane space into sacred one.

Theorising Concentration

The aim of the following analysis is to provide a theoretical connection between the attitude to focalise attention to sacred space and the symbolism of the centre. The word ‘concentration’ etymologically suggests a driving together to the centre and at the same time it means to focus the attention into a single point. For Eliade, sacred space found its maximum expression in the symbolism of the ‘centre’. He pointed out that ‘every human being tends, even unconsciously, towards the centre, and towards his own centre, where he can find integral reality - sacredness’. For Eliade, reaching the centre corresponds to an initiation and it is not easy to achieve, as it represents the passage from profane to sacred, from the world of illusions to the world of reality. The symbolism of the tension towards the centre is evident both in holy cities, which are considered centres of religious faith, pilgrimage destinations like Jerusalem, and in temple architecture, such as that at the Indonesian Buddhist temple of Borobudur. In contrast Margaret Cormack argued that some sites are defined as sacred without having the quality of a centre. The exception is the Ka’ba in Mecca, which is the unique Muslim sacred centre prescribed by the Quran. All the other places of prayer can

be defined sacred without the concept of centrality. Smith challenged the Eliade’s generalization by redefining the rule of this symbolism as mainly political, in other words as medium for centralizing power by religion. However, it is necessary to distinguish religious rules from the spontaneous feeling of the sacred. In the case of Ka’ba, the notion of centrality is an attribution by the Islam religion that is apart from any phenomenological and individual approach to the sacred. Therefore it is possible to consider the ‘centre’ as symbol of sacred space. Furthermore, Simon Coleman and Jas Elsner pointed out the presence, in world religions, of trains of thought which tend to deny the power of sacred place as a material location instead collapsing it into an archetypical inner space. According to Simone Weil in every person there is something sacred. The passage from the profane personality to the sacred and impersonal ambit is mediated by solitude in which it is possible to explore states of higher attention. According to this interpretation, the sacred space may be also considered as an inner ‘centre’. For Jung the process of self-development corresponds to the concentration of the many into wholeness. When subjective consciousness is connected with its centre then it is united with God. It must be noted that in Jung’s argument the term ‘centre’ is referred to a transcendental one, not a mental one, although the two can be related.

According to the Indian spiritual teacher Shri Ram Chandra (1873-1931), there are several degrees of concentration of mind. He described spiritual elevation using the metaphor of concentric circles as levels to underpass for joining the centre, which is the final and highest state of liberation possible. In the experience of Lauren Artress the labyrinth is an archetype of the interior world and is the perfect place for practising concentration. She repeats a phrase during the walk until the spiral pattern takes her into the deep silence of the inner centre. The evidence suggests that it is possible to consider sacred space as centre because not only concentration is fostered in sacred space, but the act of

33 Smith, Jonathan Z. To Take Place, pp. 14-17.
mental focus and attention on an inner centre can also be considered an experience of sacred space.

**Concentration corresponds to a suspension of time**

Now the investigation will look at concentration as a state of no movement and the effect this has on time’s perception. According to Aristotle the perception of immobility or no-changing inside the human soul corresponds to the perception that time is not passing, since for him time and movement are strictly related.\(^{39}\) Chandra asserted that to reach the point of complete negation of movement it is necessary to fix the mind upon a sacred mode of thinking. It can then be noted that a temporal suspension of the activity of mind has occurred.\(^{40}\) For the psychologist Theodule Armand Ribot (1839-1916), attention is a psychical state of fixity and it is in contradiction with the natural state of changing of mind.\(^{41}\) Regarding the dynamism of mind, this state was defined as natural by Ribot but it might be conceived as ordinary, or even profane.

If sacred is related to fixity, profane might be associate with movement. Looking at some subjective experiences, Thomas Johnson-Medland wrote that in sacred space ‘time slowed down and stood still long enough for me to become transformed’.\(^{42}\) Comparing the heart to an hourglass, Miguel de Unamuno (1864-1936) perceived the moment of sacredness as similar to the sand that, having finished to flow, rests: the same way the heart stops to beat.\(^{43}\) During her contemplations at the seaside, Rachel Carson referred to a moment of suspension of time that matched with the sensation of a special understanding of essence of the animal she was looking at.\(^{44}\) These previous experiences report a suspension of the flow of time in sacred space. If concentration is a state of fixity, time is perceived as resting because there is no movement in the mind. Like every motion before stopping needs to reduce speed, the intermediate state before the perception of time is suspended may also be the perception of a slowdown of time.

\(^{40}\) Chandra, Shri Ram. *Realtà all’alba*, p. 29-42.  
Perception of duration during concentration

The next question is whether concentration may change perception of duration. Thomas Rowland reported that athletes can perceive extensions of time during sport performances and for some of these athletes the slowing of time is associated with a state of high concentration.\(^{45}\) For example, regarding playing tennis, Timothy Gallwey stated that ‘concentration seemed to slow time down’ so by focusing intensely on the pattern made by the ball, it appears to move slower.\(^{46}\) In contrast, Susan McFadden and Robert Atchley argued having an object on which to focus attention can speed up the flow of time’s perception, whereas if unfocussed the individual experiences boredom and time appears expanded.\(^ {47}\) It can be argued that the emotional state of the individual may change the perception of time experienced, since it changes the intensity of the attention. For example, in a state of arousal and excitement attention may be higher. Apart from the emotional state of the subject, Eric Franklin claimed that concentration lengthens time because the brain has the opportunity to learn more about a determinate object or event compared to being in a state of distraction.\(^{48}\) This explanation is confirmed by the experience of Artress, who suggested that concentration is associated with the slowing down of thoughts and within the labyrinth time seems to disappear. A new world appeared and she started to be aware of memories and emotions she never paid attention to in the ordinary world.\(^ {49}\) Another interpretation is given by Pepper Lewis, who conceived of time as a vehicle of energy which can be manipulated, expanded and contracted as necessary. This vehicle can go quickly or slowly and move in any direction but the ability to manipulate time increases proportionally with individual’s awareness.\(^ {50}\) Lewis did not give any further explanation on how to “manipulate” time. Moreover, some accounts of pilgrimage support Franklin’s statement. In her account on travelers’ experiences on the Spanish route of pilgrimage towards Santiago de Compostela, Nancy Frey underlined that the walking is combined with a new way of perceiving the world. Regarding the pilgrims she recounted


\(^{48}\) Eric N. Franklin, *Dynamic Alignment through Imagery* (Champaign: Human Kinetics, 2012) p. 84.

\(^{49}\) Artress, Lauren. *The Sacred Path Companion.*

that ‘they develop a changing sense of time’ and a ‘here and now’ awareness of their body.\textsuperscript{51} The mode of travelling itself, by foot or bicycle, constitutes the sacredness of the journey and the slowing down motion permits a greater attention in being aware of the world around. Actually Diego Fusaro explained that hurry is characterised by nihilism, a vacuum in finding a sense of human existence, and distraction, the enemy of concentration.\textsuperscript{52} The evidence suggests that concentration seems to lengthen time in the sense that the information received by the brain is more in quality and fineness: this process is similar to the result of a view of the surrounding environment during a slow walk compared to a train journey.

\textbf{Temporal Perspective during concentration}

Finally I will examine how temporal perspective, in other words the perception of past, present and future, changes in a state of concentration. In the experience of De Unamuno, during the sacred hour after the sunset the present is vanished and all becomes past and at the same time future: the soul is transformed in total understanding of the pure memory.\textsuperscript{53} Differently for Meister Eckhart (1260-1328) not the present but the past and the future are vanished. He claimed that the individual must be without before and after to receive the highest truth. The ‘Eternal Now’ should be empty and free from reminiscence and images to be receptive to the divine gift.\textsuperscript{54} These previous citations can be unified by the sentences of the poet Dante Alighieri (1265-1321), who spoke about ‘the point where all times are present’ (my translation), conceiving the sacred as an eternal dimension.\textsuperscript{55} Therefore, in sacred space the distinction between past, present and future ceases to be valid. But in the temporality of the mind there can be one time possible for experiencing the sacred, as Guido Saraceni claimed. Concentration is an act of exclusion for to live in the present moment it is necessary to exclude memories of the past and images of the future.\textsuperscript{56} Indeed Saint Augustine explained that there are ‘three times’ but all are connected with the present. The times of memory, direct experience and expectation can only

\begin{itemize}
\item \textsuperscript{51} Frey, Nancy Louise \textit{Pilgrim Stories: On and Off the Road to Santiago} (Berkeley: University of California Press, 1998), pp. 72-73.
\item \textsuperscript{52} Fusaro, Diego \textit{Essere senza Tempo} (Milano: Bompiani, 2010).
\item \textsuperscript{53} Unamuno, Miguel de. \textit{Inquietudini e Meditazioni}, pp. 109-111.
\item \textsuperscript{55} Alighieri, Dante ‘Paradiso’ in \textit{La Divina Commedia}, ed. by D. Mattalia (Milano: Rizzoli Editore, 1984[1555]) XVII, 17-18; (‘il punto a cui tutti li tempi son presenti’).
\item \textsuperscript{56} Saraceni, Guido. ‘Durata, Evoluzione e Creazione. Appunti in margine alla filosofia di Bergson’ in \textit{Darwinismo e problemi di giustizia}, ed. by F. D’Agostino (Roma: Giuffrè Editore, 2008), p.120.
\end{itemize}
happen at the present time.\textsuperscript{57} This implies that concentration can only happen in the present, although it permits the connection of past, present and future as a single entity. Indeed the Islamic Sufi mystics are named ‘the sons of the present moment’ suggesting a reduction of temporal perspective to the present moment.\textsuperscript{58} For Nasr, the present is humanity’s most precious gift. It is the door of access where eternity and time meet: it is characterised by contemplation, faith and joy.\textsuperscript{59} In contrast, for the poet Charles Baudelaire (1821-1867) the present is tied to pleasure, while salvation is connected with a projection in the future.\textsuperscript{60} Baudelaire appears to be in line with the tension toward the future which seems to characterise his historical period. Similarly, Andrea Tagliapietra defined the world as ‘future-centered’ inheriting from the eighteenth century Industrial Revolution a model of acceleration of history characterized by fast production of material goods, science and technique where the actual world tends to accelerate time.\textsuperscript{61} For Frey the choice of post-modern pilgrims to move by foot or bicycle represents a challenge to the rushing lifestyle of the mechanized modern world.\textsuperscript{62} Therefore the tension towards future corresponds to a profane tendency, since concentration is limited by hurry. The evidence suggests that the temporal perspective during concentration is focalized on the present: it becomes the fundamental time of the sacred experience. Furthermore, in sacred space past, present and future tend to become a single unity.

\textbf{Conclusion}

Returning to the question posed at the beginning of the essay, this study has deduced that in sacred space the perception of time can change because the individual tends to focus their concentration. This paper has argued that sacred space is a human construct, since the quality of sacredness attributed to a space depends on the human’s attitude. According to theorists, sacred space can be considered a centre and therefore the act of concentration, which is to direct attention towards a centre, may be considered an experience of sacred space.

\textsuperscript{60} Baudelaire, Charles. \textit{Giornale Intimo}, ed. by O. Giordano (Lanciano R. Carabba Editore [no date]), p. 86.
\textsuperscript{61} Tagliapietra, Andrea. ‘Prefazione’ in Diego Fusaro, \textit{Essere senza Tempo} (Milano: Bompiani, 2010), pp. 9-19.
Moreover, testimonies reported that in sacred space concentration is higher so that it seems to suspend time, since it is experienced as a state of fixity of the mind. Concentration can happen only in the present moment and has the potentiality to slow time down and increase comprehension. In conclusion, on approaching a sacred space the individual’s perception of time is affected by virtue of their proper attention upon it.

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By contrasting three astrological primary sources, this paper brings an insight into the development of the psychological approach in astrology from the ancient times until today. The three discussed sources are Anthology by Vettius Valens, Astrology for All by Alan Leo and Archetypes of the Zodiac by Kathleen Burt. It has been found that all of them are unanimous in the basic characteristics of the zodiac sign and thus it can be argued that the meanings of the zodiacal signs in western astrology are constant. However, remarkable differences in form and approach have been found, such as belief in fate and length of the explanation, but of particular interest is psyche. The latter is the major topic of this paper and it is suggested, that the interest in psychological conditions of the individual is implicit in Valens’s Anthology, but explicit in the two later works. This leads to the conclusion that psychological astrology could have existed in other forms much earlier, only being overshadowed or hidden behind much more concise and concrete descriptions. It is also suggested that the development of the form of writing and transmission is subject to cultural conditioning.

Introduction

This paper is a critical review comparing and contrasting the treatment of the astrological zodiacal signs in different sources, focusing on three main primary sources to demonstrate and analyse differences. The zodiacal sign Virgo was chosen. The first source is Anthology, written by a practising astrologer of the second century, Vettius Valens (c.120–175 CE). The Anthology consists of complex and logically organised instructions to students of astrology. The second source is Astrology for All by Alan Leo (1860 – 1917) first published in 1899 in London. It aims at the wider public in order to spread the wisdom of astrology and it thoroughly describes the behaviour of Sun and Moon in each of the zodiacal signs. The third source is Archetypes of the Zodiac by Kathleen Burt, a contemporary practising astrologer. This book was first published in 1988 in

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USA and again aims at the wider public. It focuses on descriptions of the zodiacal signs, having a Jungian approach based on myths and archetypes. The reason for choosing these sources is their supposed relation to modern psychological astrology and the intent of this review is to examine and demonstrate this relationship.

**Vettius Valens: Anthology**

Valens describes the nature of the zodiacal signs by giving simple keywords for each of them. He describes the sign of Virgo as follows:

Virgo is the house of Mercury, feminine, winged, anthropomorphic, luxurious, standing like the figure of justice, bicorporeal, barren, a feedman, with no offspring, downward-trending, earthy, common, semi-vocal or mute, concerned with the body, incomplete, changeable, industrious, two-natured.⁴

This informs us about the basic qualities of the sign itself: it is ruled by Mercury, it is feminine and belongs to the earthy triplicity. By ‘common’, the author may refer to what is today usually called mutable, meaning the third of three signs belonging to the same triplicity (element) and being between two seasons (in this case summer and autumn). Valens then provides a description of men born with their Sun in the sign of Virgo:

Men born under this sign are noble, modest, religious, burdened with care, leading a quite varied life, administrators of others’ goods, trusted, good stewards, secretaries, accountants, actors, practitioners of curious arts and seekers after mystic lore, spendthrifts in their early years but prosperous later in life.⁵

Here he no longer delineates the characteristics of the sign itself, but he depicts the most typical behaviour and character traits of men born under this sign. Additionally, Valens divides the sign of Virgo into five unequal parts, or terms, saying that each of them belongs to another planetary ruler. For people born under each one of these five terms, he provides a short, even more specific description. He writes about the last two degrees belonging to Mars, ‘masculine, harsh, public, demagogues, night prowlers, counterfeiters, imposters. These degrees assault men and lead them to chains, mutilation, tortures and imprisonment’⁶, which suggests that the interpretation of personal horoscopes according to Valens was not only a character delineation, but it also lead to very specific predictions of life events.

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⁴ Valens, Book 1.2.
⁵ Valens, Book 1.2.
⁶ Valens, Book 1.3.
Alan Leo: Astrology for All

Leo treats the sign of Virgo in the section called ‘The individual and personal character of the sign Virgo’, which itself implies a more psychological approach. Like Valens, he establishes the basic attributes of Virgo as belonging to the earthy triplicity and being a mutable sign. He gives a short depiction of the sign itself, ‘this sign represents the virgin soil, the spirit-matter, as it were, which yields the most readily to the vibrations passing through it from the other signs.’ Leo then moves on to characterising individuals born under the Virgo sign. He describes them as constructive, practical, critical, having large reasoning powers, cautious, punctual and selfish. He also characterises the general health conditions of people born under this sign, saying they are very sensitive physically, absorb drugs easily and their bodies act like barometers.

Kathleen Burt: Archetypes of the Zodiac

This book deals with the problems of the twelve signs of the zodiac by using archetypes and myths. The author defines archetype as an ‘unconscious behavioural pattern contained in the collective unconscious...that extends the individuum and its form is independent on the collective level.’ She herself points out that her approach is based on the concept of Carl Gustav Jung, who describes ‘archetype’ as follows,

The term “archetype” thus applies only indirectly to the “representations collectives”, since it designates only the psychic contents which have not yet been submitted to conscious elaboration and are therefore an immediate datum of psychic experience...The archetype is essentially an unconscious content that is altered by becoming conscious and by being perceived.

Therefore, by using archetypes, Burt describes the sign of Virgo by delineating an unconscious content which is a necessary part (one twelfth) of the whole. She brings this to a practical level by specifying the psychological traits and behaviour of individuals who have a strong accent on the particular archetype – that is with Sun or Ascendant in Virgo. This psychological framing is

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7 Leo. Astrology for all, p.25-27.  
8 Leo. Astrology for All, p.25.  
9 Leo. Astrology for All, p.25-27.  
careful and allows for various alternatives, which makes the treatment of this sign extend to the length of 34 pages.

Burt also uses myths to better delineate the character of this archetype. She defines myth as an ‘archetype of a particular form that undergoes a development in a story.’ By interspersing the psychological delineation of Virgo with the myths of Isis, Hermes, Merlin and others, she uses mythological symbolism to show a practical manifestation of the archetype.

Comparison

All three sources are unanimous in the basic characteristics of the sign – they all mark it as mutable, earthy, negative (feminine) and ruled by Mercury. Thus the theoretical underpinning of the meaning doesn’t differ, which may point to an underlying conservatism and continuity in Western astrology. The sources discussed also all focus on the practical use of the meaning of the sign in interpretation, but their approach is distinct. Valens’s *Anthology* provides a brief depiction of the character of the people born under the sign of Virgo in form of keywords and delineation of their life. Valens mentions possible events, conditions and situations that they may find themselves in. It is worth comparing *Anthology* to other ancient sources. For example, Ptolemy (c.100–178 CE) in his *Tetrabiblos* doesn’t provide any complete description of the signs or characters of people born under these signs. This finding can be supported by what Nicholas Campion says about Ptolemy, ‘Ptolemy had been primarily concerned with the systematic attribution of particular qualities to the signs in order to allow their use either in the analysis of individual horoscopes, or in the prediction of specific events’. The same approach can be found in *Matheseos*, a book by the fourth century astrologer Firmicius Maternus. Similarly, the seventeenth century astrologer William Lilly in his book *Christian Astrology* only mentions the basic qualities of the sign of Virgo and not the psychological characteristics of people born under this sign. Campion writes that Valens’s character descriptions ‘constitute the world’s oldest psychological model which remains the most widely known form of personality analysis’ and Leo deepened this attempt – only

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15 Ptolemy, *Tetrabiblos*.
17 Firmicius Maternus, *Matheseos*.
1700 years later. However, compared to Leo, Valens is more specific, determinative and thus concise. Valens describes character which is given to the individual and then focuses on the life such individuals will lead, their career and prosperity. He doesn’t leave much space for interpretation. Although Valens shows interest in psyche, this interest is only marginal and very brief, perhaps rather implicit, seen more as a necessary step towards the delineation of life events. A similar statement was made by Nicholas Campion about Ptolemy, saying that Ptolemy’s analytical astronomy, set out in *Tetrabiblos*, analyses the condition of the individual soul to provide foreknowledge of predetermined events.

Leo focuses on the psychological aspects of personality, the space dedicated to the sign of Virgo is larger than in Valens’s *Anthology*, and thus the character is examined in more detail. While Valens mentions character, behaviour and possible fate, Leo focuses on the inner psychological life and is less deterministic than Valens. By using words like ‘almost’, ‘may’ or ‘often’, Leo leaves more space for various manifestations of the qualities of Virgo to arise and doesn’t delineate fate. His character delineation is marked by the possibility of choice and change, ‘when living more in their individuality, or becoming what is termed more self-conscious, they are really splendid characters’. Leo is also concerned by spiritual growth, saying that ‘they are capable of making wonderful progress in spiritual development’. Similarly to Leo, Burt treats the topic at a deep, psychological level. Both Leo and Burt try openly not only to describe, but also to understand the individual characterised by the sign. This may be an example of what Glenn Perry, the contemporary psychological astrologer, presents as a ‘modern psychological astrology, which tries to recognise complex psychological problems, instead of making predictions, advice, warnings and simplistic solutions.’ This is what traditional (ancient and medieval) astrologers used to do according to Perry. However, it could be argued that it is not so clear whether it is the goal of understanding rather than only the nature of description, which has changed. Valens and other ancient authors may have wanted to understand the individual

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at a psychological level as well, but as a result of custom, cultural and other conditions, in their writings they may have relied on the interpretation skills of the reader more than authors of modern times. This could be supported by the fact that the practice manuals of horoscopic astrology in the times of Valens were designated to a limited, highly educated audience due to the necessity of knowledge of astronomy and in the absence of book printing. While Leo’s and Burt’s books are readily accessible to the wider public, which may be reflected by more thorough explanations. It is necessary to keep in mind the gap of approximately 1750 years between Valen’s *Anthology* and Leo’s *Astrology for All* and also the different cultural conditions under which they were written – it would be foolish to think that the custom and culture of the time would not be reflected in the form of writing. The distinction in the form, however, does not necessarily imply any difference in the intended purpose of the writing.

Nevertheless, a significant difference between Valens and the two other authors can be pointed out. Both Leo and Burt mention possible spiritual development of the soul, supported by secondary progressions, which is a technique equating each one day after birth to one year of life. Thus, the Sun moving approximately by one degree per day, will progress by thirty degrees from its original location at birth by the age of thirty, and thus will be in the sign of Libra. Burt therefore includes also the signs following Virgo (Libra and Scorpio) and their manifestation and integration in Virgo’s life. In fact, Leo wrote a whole book dealing with this topic called *The progressed Horoscope*, where he states,

> Man may become master of his destiny, being himself in essence inseparable from the Divine Ruler... It is from this standpoint that all the directions given in this work are made, and all its rules are based upon the idea that the stars condition, they do not compel.25

In this quote Leo stresses the importance of free will and the fact that the (progressed) horoscope, as well as planetary transits through the natal chart, only give the limits of self-development and are not an irreversible plan of life. He does this by describing the natures of all possible aspects between natal and progressed and transiting planets. Burt, on the other hand, is being more general by only dealing with the secondary progressions of natal Sun as it progresses through following signs. For instance, she writes about integrating the energy of Libra and becoming more stable during the thirty years period in Virgo’s life when the progressing Sun advances through this sign.26 Another point arising from the deeper psychological interest of Burt is that she depicts not only the character and likely profession, she also states a reason for this,

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A meaningful and useful job is more important for Virgos than a lucrative one; they are often appreciated as social workers, scholars, teachers...because it is more important for them to be useful and helpful, than to do a better-paid work which is not related to service.²⁷

Moreover, she explains the reason for the traits of character bearing the qualities of the ruler of this sign – Mercury. Unlike Valens or Leo, she depicts possible manifestations of these qualities in much detail, considering also other possible variations depending on further factors of nativity.

On account of their nervous, hypersensitive character, the mercurial types would be more comfortable living as...common employees than employers. If only these individuals could or would be able to deal with stress through another type of energy in the nativity, for example the cardinal...or fiery...they would deal with their stress better.²⁸

Additionally, unlike Valens and Leo, Burt stresses the necessity of a holistic approach by saying that all twelve archetypes of the zodiac are more or less contained in each individual. She also uses a comparison to the opposite sign Pisces which is, as she says, just the opposite polarity of the same quality and therefore also needs to be considered.²⁹ The difference between the ancient and the most modern source is remarkable. Valens only deals with the raw meaning of the sign and its pure effect on character and life, while Burt extends her treatment of the topic to a complex, holistic understanding of individual.

Conclusion

In reviewing the sources, no major differences were found in the core themes. It can be concluded that the two modern sources build on the ancient, traditional meanings of the zodiacal sign Virgo, which have stayed the same for nearly two thousand years. However, the review showed that although the core theme is continuous, there are considerable differences in the form and approach to fate and psyche. The three main sources showed evidence of a continuous development in astrology, although three remarkable differences can be stated. The first difference exists in the attitude to human psyche; the interest in psychological conditions of an individual set by his or her horoscope can be seen as implicit in Valens’s *Anthology* and explicit in Leo’s and Burt’s works. According to Campion, the development which is visible in Leo’s work can be credited to the late nineteenth century influence of theosophy, the Hindu idea of karma and

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personal spiritual development, and the striving for union with the One.\textsuperscript{30} To achieve this, the brief ancient descriptions of zodiacal signs and the inevitable fate they implied were not satisfactory, so Leo’s work is naturally more focused on reflecting inner character.\textsuperscript{31} Burt’s work continues in this natural development which started in the late nineteenth century and is underpinned by the teachings of C. G. Jung, and so her work describes the signs even in more detail in order to better understand the individual. The two modern sources show more interest in human psyche in terms of the inner state of mind of an individual and develop the ancient knowledge into a complex understanding of an individual born under the sign of Virgo. Another difference is found in the approach to fate because the two modern sources are both more concerned with psychological characteristics and processes rather than with external events as in the ancient source. The third noticeable distinction is the difference in length of the three sources, the oldest being the shortest and the most modern the longest. This is probably implied by the above explained two differences. It is a reflection of customs in each particular period of time, of the difference in aimed audience and the necessity to explain more thoroughly but also of the different attitude to psyche and fate. It can be concluded therefore, that the meanings of zodiacal signs are constant, but their interpretation and application changes continually, depending on current cultural influences.

Works cited


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MA Cultural Astronomy and Astrology

The papers in SPICA were written by students of the University of Wales, Trinity Saint David, as partial requirement for the attainment of the degree offered by the Sophia Centre for the Study of Cosmology in Culture located within the school of Archaeology, History and Anthropology.

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- Dr Nicholas Campion, Director of the Sophia Centre for the Study of Cosmology in Culture.

Inquiries and further information:
Dr Nick Campion at n.campion@tsd.ac.uk.