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Moon
Venus
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framework
seen
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Sky journal of near horizon and dusk observations.

By: Victor Reijs[1]

Based on essay for the MA-CAA module Heavenly Discourses at University of Wales, Trinity Saint David, Lampeter.
Reworked on August 18th, 2013

1 Introduction

My sky journal's theme is about my experiences of near horizon and dusk observations of astronomical bodies. These experiences have been gained firstly through the rise and set events of differently phased Moons over a period of seven months in 2003 to prepare for the 2006 major lunar standstill limit event.[2] And secondly through the visibility of stars and planets during dusk and darkness times for a period of seven months in 2013. In general the Sun's position has an influence on the visibility of astronomical objects.

Before going into the observations, a framework will be provided to channel the experiences of the sky. This will be based on the archaeography framework of Tom Graves and Liz Poraj-Wilczynska.[3] Following their framework and methodology, the sky observations are gathered with my artistic, scientific, mystical and magical (applicational) roles in mind.

Sky, firmament and heaven can be defined in different ways.[4] For this essay the following loose definitions are used (such defined words will be capitalised in the rest of the text): Sky is what can be seen when looking up from the skyline, so related to geography, atmosphere/meteorology and astronomy; Firmament is about what is behind the atmosphere aka related to astronomy and astronomical objects; and Heaven is related to the more personal, religious (heavenly writings of the gods) or spiritual experiences of the Sky.

2 Academic rationale

The academic rationale is based around the principle that one can experience events from different roles. The chosen framework is described by Graves and Poraj-Wilczynska and called archaeography, which investigates the Spirit of the Place as:

[1] E-mail: ma.victor.reijs@gmail.com
Web: http://www.iol.ie/~geniet/eng/archaeocosmology.htm
[2] Victor Reijs, "Investigating the major lunar standstill limit event in 2006," http://www.iol.ie/~geniet/eng/majorstandstills.htm.
[3] Tom Graves and Liz Poraj-Wilczynska, "Spirit of Place as process: Archaeography, dowsing and perceptual mapping at Belas Knap," *Time and Mind* 2, no. 2 (2009).
[4] Francesca Rochberg, *The heavenly writing; Divination, horoscopy, and astronomy in Mesopotamian culture* (Cambridge: Cambridge university press, 2004), 1, 67.

> "both an abstract concept and a profoundly personal experience of relationship with place. Each place and district and region has its own characteristics, both explicit and implicit, that make it 'locally distinctive'."[5]

By applying archaography beside the well established archaeological methodologies, the investigator's subjective experiences are added through the Artist, Scientist, Mystic and Magician roles (Figure 1).[6]

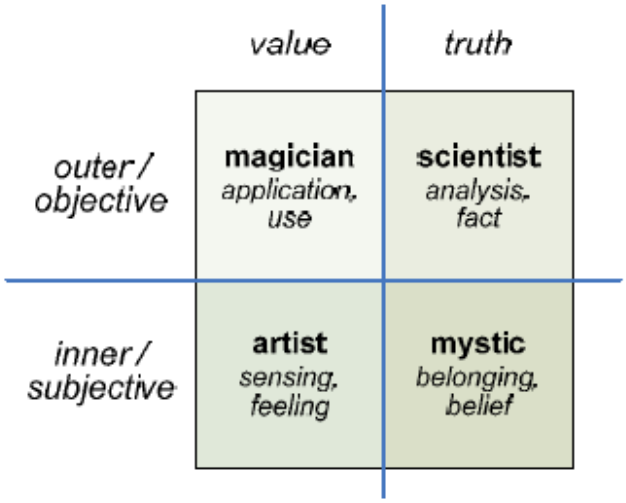

Figure 1 The four roles: Artist, Scientist, Mystic and Magician

Archaeography framework is about "*sensing* [by Artist] at an *identifiable* [by Scientist] location to derive information that's *meaningful* [by Mystic] and *useful* [by Magician]". [7]
As observing the Sky incorporates similar processes, the framework is being applied to the Sky: the Artist senses the Sky and the Sky is made identifiable by the Scientist. The Mystic looks at the meaning and the Magician keeps the usefulness of the Sky in mind.

This framework will be applied for rise/set and heliacal events, which are important for past and present cultures: The rise/set events can have relation with the skyline as a calendar; or monuments can be aligned to for instance the major lunar standstill limit.[8] The relevance of lunar alignments is though not universally accepted.[9] Heliacal events are being used to determining ritual/calendrical events. For instance the start of the month is defined in several cultures (such as Mesopotamian and Islamic) by the first (observable) lunar crescent.[10] Another example is the heliacal rise of Sirius in Egyptian culture,

[5] Graves and Poraj-Wilczynska, "Spirit of Place as process: Archaeography, dowsing and perceptual mapping at Belas Knap," 194-195.
[6] Tom Graves and Liz Poraj-Wilczynska, *The disciplines of dowsing* (Colchester: Tetradian, 2008), 27.
[7] Graves and Poraj-Wilczynska, *The disciplines of dowsing*: 26.
[8] Alexander Thom, *Megalithic Lunar Observatories* (Oxford University Press, 1971), 77., William H. Calvin, *How the Shaman Stole the Moon: In Search of Ancient Prophet- Scientists from Stonehenge to the Grand Canyon* (iUniverse, 2001), Chapter 9.
[9] Brad E. Schaefer, "Case studies of three of the most famous claimed archaeoastronomical alignments in North America," in *Oxford VII* (Flagstaff Az.2004).
[10] Clive Ruggles, *Ancient astronomy: an encyclopedia of cosmologies and myth* (Abc-Clio Incorporated, 2005), 228-230.

which happened close in time to the agricultural important flooding of the Nile delta.[11] Heliacal events of stars, planets and Moon were part of Mesopotamian culture as Heavenly omens.[12] In this essay two heliacal events will be observed: Acronychal Rise of Sirius and the Evening First of Venus, using Rumen Kolev's definitions, which can be traced back to Ptolemy's star phases.[13]

There are also astronomical, meteorological, psychological and physiological aspects. These will be touched upon as part of the framework. Weather conditions, such as clouds, rain, visibility, distortions, etc. can be linked to Mesopotamian Heavenly omens and present observations.[14] Personal feelings can be experienced as frustration, awe, jealousy and thus becoming part of a contested space.[15] Furthermore the human physiology plays an important role: like seeing things that are 'not there'; or seeing things 'through' artefacts (such as eye floaters).[16]

3 Methodology

Being outside to observe the Sky was the methodology used. My observations related to: astronomical object observed; timing/location information; weather conditions; and personal feelings.[17] Further recordings are made of: skyline, clouds and astronomical objects by using sketches, photos and videos.

Tools used were: pencil, notebook; clinometer; compass; binoculars; GPS; red coloured flashlight; camera, and planetarium program.

While observing, I kept the different roles in mind and gave them all a certain amount of attention. Being aware of one's personality can help not to lock into for instance only the Scientific, Mystical or Artistic role. These roles were not strictly applied during one observation but spread out, to minimise restriction of my experiences/awareness.[18]

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[11] Ruggles, *Ancient astronomy: an encyclopedia of cosmologies and myth*: 229.
[12] Noel M. Swerdlow, *The Babylonian Theory of the Planets* (Princeton University Press, 1998).
[13] Rumen Kolev, *The Babylonian astrolabe: The calendar of creation*, ed. Simo Parpola, vol. XXII, State archives of Assyria studies (Helsinki: Neo-Assyrian Text Corpus Project, 2013), Appendix D. , Claudius Ptolemy, *The phases of the fixed stars*, trans. Robert Hand (The Golden Hind Press, 1993), 5. And Victor Reijs, "Star phenomena," http://www.iol.ie/~geniet/eng/starphases.htm.
[14] Hans Hackel, *Wolken*, trans. George Beekman (Baarn: Tirion Uitgevers, 2008). and Andrew T. Young, "Optical phenomena of ducts," http://mintaka.sdsu.edu/GF/explain/simulations/ducting/duct_intro.html. and Rochberg, *The heavenly writing; Divination, horoscopy, and astronomy in Mesopotamian culture*.
[15] Howard Morphy, "Colonialism, history and the construction of place: The politics of landscape in Northern Australia," in *Landscape, politics and perspectives*, ed. Barbara Bender (Berg, 2009), 205-207.
[16] James T. Fulton, "Performance description of vision: Temporal & spatical performance," in *Processes in biological vision* (2000). and Enck Kanaj, *The Crystal Eye Floater* (eBookit.com, 2013).
[17] Fred Schaaf, *Seeing the Sky: 100 Projects, Activities & Explorations in Astronomy* (Dover Publications Incorporated, 2012), iii-iv. and Graves and Poraj-Wilczynska, "Spirit of Place as process: Archaeography, dowsing and perceptual mapping at Belas Knap," 175.
[18] Graves and Poraj-Wilczynska, "Spirit of Place as process: Archaeography, dowsing and perceptual mapping at Belas Knap," 175.

Back home the experiences were checked for clarity and omissions. If possible the experiences were graphed to provide new insight.[19]

In case 'unexplainable-in-whatever-role' experience had been witnessed, an initial investigation was done based on literature and expert consultation. As David Abram states, this allows for a different/new awareness level during the next observation, so that possible new experiences can be recorded.[20]

4 My experiences

Looking at the Sky provides many impressions. The Sky can trigger my numinous feeling due to the vastness and awesomeness of the Heavens (Artist); or it can trigger the astronomical side of me how the Firmament looks like (Scientist). The Heaven can provide me with myths, like Heavenly writings through for instance constellations, which provide me with a sense of belonging (Mystic). Furthermore the Sky can also be applied for: solar/wind energy; space travel to stimulate economy; or predictions for the future (Magician). In the below sections my Sky impressions are documented.

4.1 Artist: Sensing and feeling

One of the reasons for observing was to witness the emerging of stars and planets from the skyline during dusk. And it was a thrilling joy to see such an appearance happening for the first time.
Sitting in cold and darkness, with a planetarium program at hand, scanning the skyline to see if and when Sirius will emerge. Am I looking in the right direction? Are there invisible clouds far away? What do passing by people think of me standing here against the wall? When will Sirius emerge?
All the technology can perhaps provide me with the right answer, but still, here I am standing, taking in the Sky and the Heaven and waiting in anticipation!
After concentrated viewing I think I see Sirius. But is this pin prick of light indeed Sirius? Or is it wishful thinking? A lot of uncertainty, as the pin prick of light is gone within a second. But then at last Sirius stays visible even after nodding my head. What a joy to see her at last! Slowly she rises and gets brighter every moment, after which she vanishes behind a mysterious cloud.
That was on January 3rd, 2013.

Sounds can emphasise the atmosphere. For instance while waiting on June 22nd, 2013 for the clouds to move away, I became aware of a rookery as rooks sang their kaah songs (Figure 2).

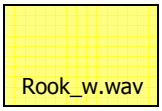

Figure 2 The kaah songs of rooks
<double click the above to hear the song>[21]

With the full Moon through their rookery, I felt an eerie atmosphere from this murder (flock) of rooks (Figure 3).[22]

[19] Philip M. Sadler, Doug Haller, and Eliza Garfield, "Observational journals: Aid to sky watching," *JCST* February(2000): 251-252.
[20] David Abram, *The spell of the sensuous: perception and language in a more-than-human world* (Vintage Books, 1997), 9.
[21] Knutsford Ornithological Society, "Bird sounds," http://www.10x50.com/sounds.htm.

Figure 3 A murder of rooks living in the Moon lit rookery (May 22nd, 2013)

While talking about clouds; they can be breathtaking in colour and form. At sunset the clouds can have a palette of colours (Figure 4).

Figure 4 Atmospheric colouring of the Sky: yellows, oranges, pinks, blues, blacks (May 17th, 2013)

And of course the clouds' form can be amazing too: animals, faces, etc. For some examples, see Figure 5 and Figure 6.

[22] Richard Spilsbury and Louise Spilsbury, *A Murder of Crows* (Heinemann-Raintree, 2003).

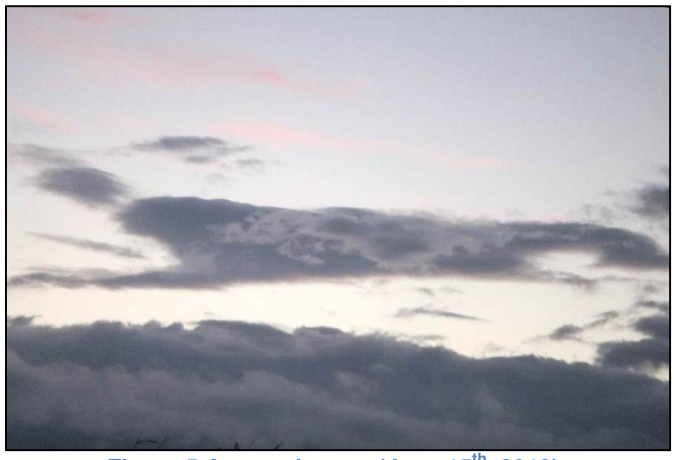

Figure 5 A snoozing cat (June 15th, 2013)

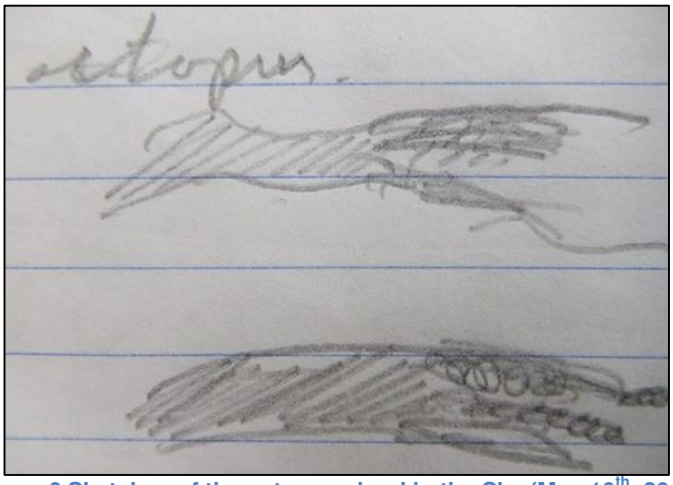

Figure 6 Sketches of the octopus cloud in the Sky (May 10th, 2013)
<a scan from my logbook>

If there are no clouds and the meteorological conditions are good, one can see all kinds of near horizon distortions of for instance the Moon. Although these can be explained by scientific reasoning (section 4.2), the observation of such an event is something I will never forget. While in the nearby car youth were blasting their disco music, I saw for the first time a considerably distorted Moon (Figure 7).[23]

[23] Victor Reijs, "Thermal inversion of the Moon rise from Skerries, Ireland, May 25th, 2013," YouTube, http://www.youtube.com/watch?v=yrXAtBvkGwk.

Figure 7 A sense of a nuclear explosion in the direction of Sellafield (May 25th, 2013)
<CTRL+right click shows video>

At that moment I had the feeling as if a nuclear explosion was happening on the other side of the Irish Sea (Figure 8). It was awesome and beautiful.

Figure 8 Mushroom cloud of nuclear weapon test Bravo
<CTRL+right click shows video: look from 40 seconds>[24]

Beside these impressive pictures, the Sky is also a contested space. Like my unbelief that others saw Venus or Mercury earlier or later than me: a kind of colonisation of an astronomical object.[25] Or when broadcasting the major lunar standstill limit event at Calanais I and people vandalise my camera (July 9th, 2006: Figure 9); seeing the camera, rightly or wrongly, as an intrusion of their privacy.

[24] Anonymous, "Nuclear explosion montage," http://www.maniacworld.com/nuclear-explosion-montage.html.
[25] Morphy, "Colonialism, history and the construction of place: The politics of landscape in Northern Australia," 205-207.

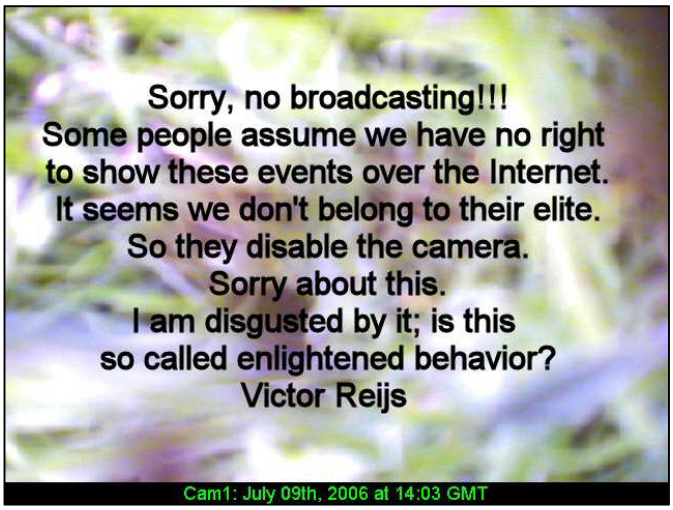

Figure 9 My reaction to the vandalised camera

But there also more serene feelings, as can be read in my poem around the conjunction of three planets (Figure 10):

> "Pink, orange and red hides the blinding Sun.
> The catching face of Venus' loved one,
> with the slow moving battleship of Jupiter,
> tempered by the feeble Mercury.
> Suspended in the universe."

Figure 10 Mercury, Jupiter and Venus on May 26th, 2013

4.2 Scientist: Analysis and fact

A logbook was kept during the observations. A sample page can be found below (Figure 11) and contains: observation location; meteorological measurements; which astronomical objects are visible (naked eye or binoculars); a possible sketch; and other relevant information.

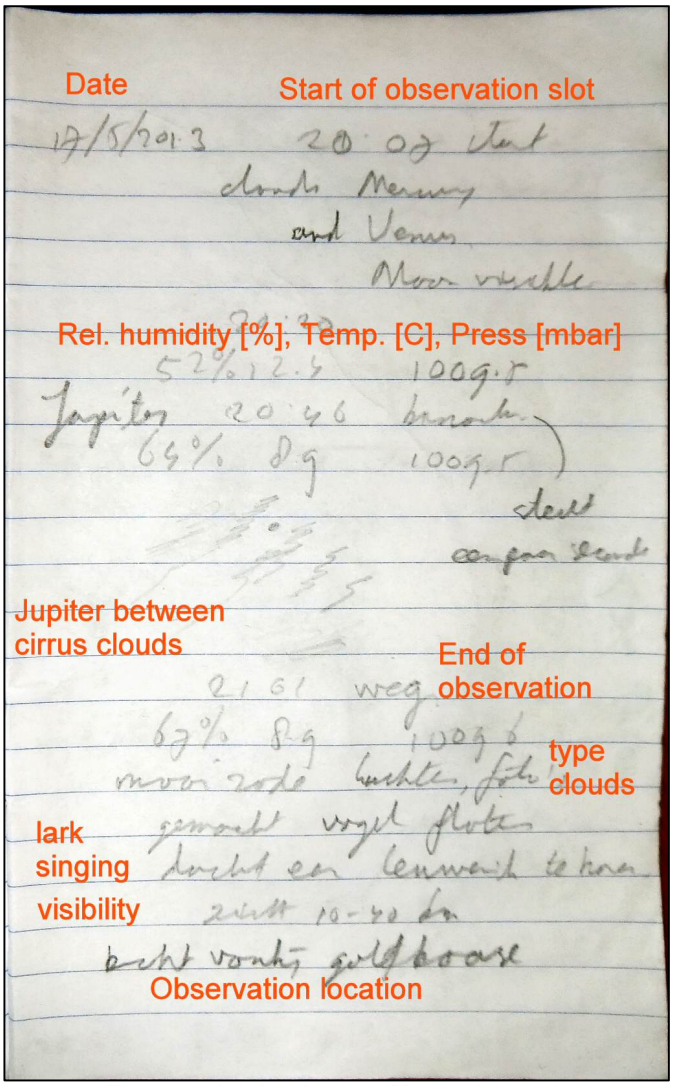

Figure 11 Logbook page (May 17th, 2013)

One of my reasons for observing stars and planets was to benchmark an implementation of Brad Schaefer's model for the visibility of astronomical objects.[26] Below the calculated and observed object visibility around Acronychal Rise of Sirius (Figure 12) and the Evening First of Venus (Figure 13) can be seen.

[26] Brad E. Schaefer, "New methods and techniques for historical astronomy and archaeoastronomy " *Archaeoastronomy: The journal of astronomy in culture* XV(2000): 121-129. And Victor Reijs, "ARCHAEOCOSMO," http://www.iol.ie/~geniet/eng/archaeocosmoprocedures.htm.

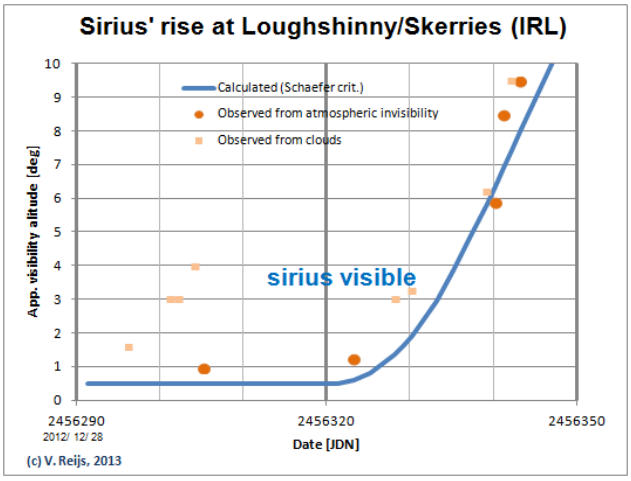

Figure 12 Sirius' rises around its Acronychal Rise (at Skerries, Ireland)
(Observations: Jan 2nd to Feb 19th, 2013 with Acronychal Rise around Jan 26th, 2013)

Around this time Sirius rises every evening a little higher while the setting Sun is less deep under the horizon. The calculated visibility altitudes (blue line) look to be following Sirius' rise observations.

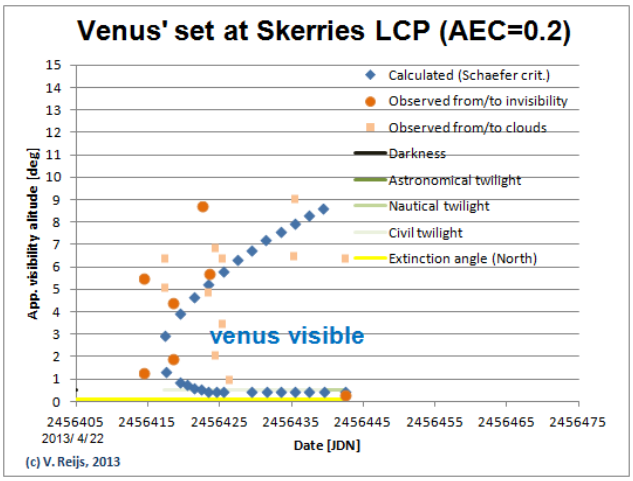

Figure 13 Venus' sets around its Evening First (at Skerries, Ireland)
(Observations: April 29th to May 29th, 2013 with Evening First around April 30th, 2013)

From the Evening First date, Venus becomes shortly visible in the twilight before it sets, the following day Venus will be seen longer. As the calculated Evening First is in Bulgaria some four days earlier than in Ireland,[27] Kolev's Bulgarian observation date of April 26th, 2013 comes close to my Irish date of April 30th, 2013.[28] The calculations are though a few days off for Venus' observed sets (see section 4.4).

The first time I observed my first lunar crescent was on May 11th, 2013 (Figure 14).

[27] Reijs, "ARCHAEOCOSMO". And Rumen Kolev, 8 August 2013.
[28] Kolev.

Figure 14 First lunar crescent on May 11th, 2013

In June it was clouded during the time for first lunar crescent. And in July the first lunar crescent, which indicated the start of Ramadan, was not seen due to clouds. The next day, July 11th, 2013, a crescent Moon was seen. First lunar crescent of August, 9th, 2013, which signalled the end of Ramadan, was not seen due to clouds. These observations have also been provided to the Moon Watch program of HMNAO.[29]

To familiarise with the major lunar standstill limit in 2006 (see Figure 15), some 45 Moon rises and sets have been witnessed. The phase of the Moon varied from new-ish (5%) to full and the following rule of thumb for rising and setting Moon has been derived:

- new-ish Moon (5-25%): to be seen when darker than nautical twilight.
- quarter-ish Moon (25-75%): to be seen when darker than civil twilight
- full-ish Moon (75-100%): to be seen when lighter than civil twilight.[30]

Figure 15 Major lunar standstill azimuth limit moon at Calanais III (Sept 29th, 2006)

[29] HMNAO, "Moon Watch: An Einstein year project," http://astro.ukho.gov.uk/moonwatch/index.html.
[30] Reijs, "Investigating the major lunar standstill limit event in 2006". #thumb

Due to circumstances, like a land wind during a warm day, a thermal inversion happened just above my head. As explained by Andrew Young, this thermal inversion distorted the Moon considerable (see section 4.1).[31] Another photo of this inversion can be seen below (Figure 16).

Figure 16 Distortion of the Moon due to thermal inversion (May 25th, 2013)

A similar effect was seen at Sun set (June 7th, 2013), in this case it was again a warm day and near the sea. Following the Sun's distortion over time, the thermal inversion was this time higher above my head.[32]

The perceived colour of Venus changed during the observation period. During the first days of visibility (from April 30th, 2013), Venus looked quite yellow-ish. From May 21st, 2013 this changed; Venus started to be much more white-ish. This might be due to the changing background illumination by the setting Sun, which was more and more below the horizon.[33] On May 29th, 2013 Venus was twinkling considerable when it was low in the Firmament and on the video recording Venus was quite red.[34] This redness was not visible with naked eyes or binoculars.

4.3 Mystic: Belonging and belief

There have been many instances that I really believed I saw the astronomical object that I was looking for. Even in a overcast Sky, I saw the Moon rise!
This is closely related to the idea that human can see faces or other forms in for instance clouds or rocks.[35] It is amazing how such experiences continue, even after realising that the object might not be seen by other people.
During my Sky observations there were reasons for these so-called 'illusions' such as: wishful thinking, I wanted to see the astronomical object; human made artefact, airplane light on clouds; after image of an earlier seen astronomical object; or light pin pricks that occurred in my eye. But regardless of this Scientific

[31] Young, "Optical phenomena of ducts". Section: Sunset seen from 45 meters height
[32] Young, "Optical phenomena of ducts". Section: Sunset seen from 40 meters height
[33] Schaaf, *Seeing the Sky: 100 Projects, Activities & Explorations in Astronomy*: 50-53.
[34] Victor Reijs, "Venus twinkle on May 29th, 2013 " YouTube, http://www.youtube.com/watch?v=psnjuGmP2NI.
[35] Stewart Guthrie, "Spiritual beings: A Darwinian, cognitive account," in *Evolution of Religion: Studies, Theories, and Critiquies*, ed. Joseph Bulbulia, et al. (Collins Foundation Press, 2009), 241.

role, I really believed the perceived phenomenon was the astronomical object of my interest.

The earlier mentioned colour change of Venus (section 4.2) can also be related to Heavenly omens of the Mesopotamians. Alison Chester-Lambert, a fellow student, found an omen related to the redness ("fire") of Venus:

> "[If Venus (at her appearance)] flickers with fire: weakness of cattle, fright of cattle."[36]

Such a Heavenly omen provides an insight in the Mesopotamian belief that 'natural' phenomena are the writings of the gods in the Heaven.[37]

During the Sky observations my eye floaters (small deposits floating in the thick fluid of the eye, see Figure 17) seem to converge in front of the very faint astronomical object. The perception of this convergence could be due to my concentrated awareness for a certain point.[38]

Figure 17 Simulated image of floaters against a blue Sky[39]

I believe that eye floaters could result in an inference pattern and possible enhancing the faint light of just perceivable celestial object.[40] More observations are needed to pin point this belief. For now I see my eye floaters as "My internal universe of movement" (May 21st, 2013).

It is difficult for me to detach from planetarium programs, clocks and other instruments, but while observing daily the Sky I get a sense of hope and strong

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[36] Erica Reiner and David E. Pingree, *Babylonian Planetary Omens*, vol. III (Groningen: STYX Publications, 1998), 41.
[37] Rochberg, *The heavenly writing; Divination, horoscopy, and astronomy in Mesopotamian culture*: 64.
[38] Kanaj, *The Crystal Eye Floater*: location 49. Kindle ebook
[39] Acdx, "Simulated image of floaters against a blue sky," http://en.wikipedia.org/wiki/File:Floaters.png.
[40] Kanaj, *The Crystal Eye Floater*: location 83 - 130.Kindle e-book

belief that there is a regularity and predictability, regardless of my Scientific role. I belief that overtime, with more observations, I will become more aware of the daily difference between star rises and Sun (due to sidereal and tropical period difference).[41] And I will perhaps also sense that successive star rises, during civil twilight, stay more or less at the same (water)clock time. All this strengthens my sense of Heavenly regularity.

During one of my observations (May 17th, 2013), I heard a sound that reminded me of my youth. A lark was singing high up in the Sky, and I was back standing in the field at the back of my childhood home. This gave me an immense sense of belonging to the place I was observing: the Sky.

4.4 Magician: Application and use

An ephemeris is useful to determine when and where an astronomical object will be. Together with a clinometer and a compass one can pin point the location in the Firmament. This helps the eye to find a small object in a uniformly illuminated area. The eye needs time to sense a light source and focus, this all takes several seconds; so don't scan the area too fast.[42] Based on some experiments: my eye will not see an astronomical object during civil twilight, if that object is outside a circle of some 5 degrees from the viewing direction.

One aim of the observations done in 2013 is to provide benchmarking for my computer implementation of astronomical object's visibility. The Evening First observations proof to be a good reason to study the computer code, as the calculated altitudes match more or less the observations of Kolev and myself (see also section 4.2).[43]

The standardised Visibility Range (V_r), which provides a measure of the clarity of air, cannot be determined easily from Schaefer's theoretical formula for Astronomical Extinction Coefficient (AEC).[44] This can be seen in Figure 18. To make the possible relation V_r and AEC useful, further study is needed.

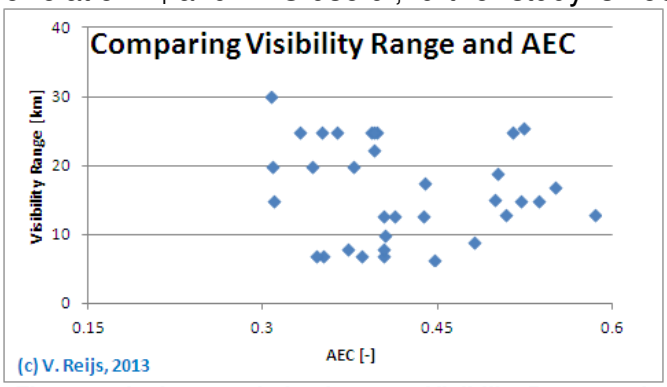

Figure 18 Is there a relation between Visibility Range and Astronomical Extinction Coefficient?

[41] Ruggles, *Ancient astronomy: an encyclopedia of cosmologies and myth*: 398.
[42] Fulton, "Performance description of vision: Temporal & spatical performance." Chapter 17.5 and 17.6
[43] A solution has been engineered, but need to do Evening Last observations of Saturn in September 2013 to further improve the (implementation of) model.
[44] Ulrich Platt and Jochen Stutz, *Differential Optical Absorption Spectroscopy: Principles and Applications* (Springer-Verlag Berlin Heidelberg, 2008), 102, 110-112. And Schaefer, "New methods and techniques for historical astronomy and archaeoastronomy " 128.

During the 7 months I adopted a certain rhythm from dusk to midnight. As I did not want to get out of bed for early morning observations, I stuck to evening observations. After observing evening rises, I changed to evening sets of Jupiter, Venus and Mercury. I have adjusted my observations to provide maximum benefit to my heliacal events' work.

The logbook was transcribed into SurveyMonkey questionnaires, facebook and Yahoo groups.[45] To apply my observation location information in my Artistic role, I put these locations as a constellation in the Sky (Figure 19).

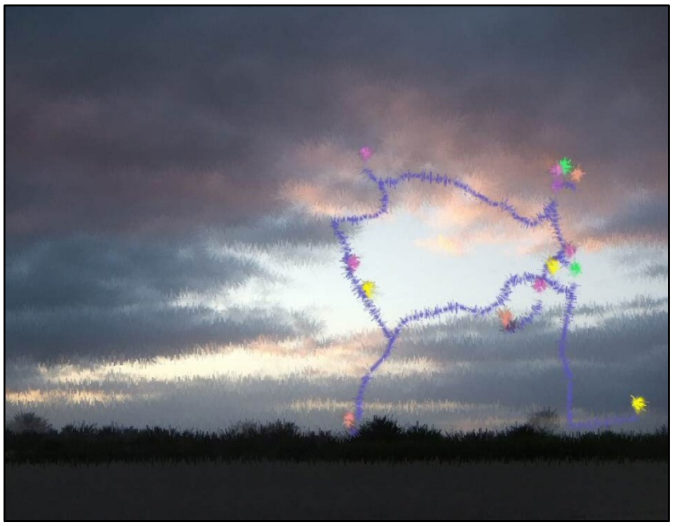

Figure 19 Instead of a topographical map, the observation constellation is mapped on the Heaven.

The heliacal events are used in many former cultures, such as: Mesopotamians and their omens; and ancient Greek, such as Hesiod's Work and Days.[46] The first lunar crescent is applied by several modern cultures.

The observations made me aware that there is a kind of regularity to the Heavens: Guthrie's face in the cloud concept shows that people are able to see something in the Sky and this together with symbolism of Heavenly objects and meaning/omens can provide a framework for religious experiences.[47] This quest for meaning in the Heavens and the realisation of this human tendency is the reason why I enjoyed discoursing with the Heavens.
Beside the Heavenly side, I enjoyed being in open space and under vast Skies during magical evenings.

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[45] Victor Reijs, "Heliacal events," http://www.surveymonkey.com/s/HSQMZKC., Victor Reijs, "Observing celestial object's rise/set," facebook, https://www.facebook.com/groups/ObservingSirius/., MA CAA, "AHAN 7024 - Heavenly Discourses Module Area," facebook, https://www.facebook.com/groups/276706195799440/. And Victor Reijs, "archaeocosmology: Discuss things around archaeocosmology," Yahoo, http://tech.groups.yahoo.com/group/archaeocosmology/.

[46] Rochberg, *The heavenly writing; Divination, horoscopy, and astronomy in Mesopotamian culture*. and Anthony Aveni and Albert Ammerman, "Early Greek astronomy in the oral tradition and the search for archaeological correlates," *Archaeoastronomy: The journal of astronomy in culture* XVI(2001).

[47] Guthrie, "Spiritual beings: A Darwinian, cognitive account," 241. And Thorkild Jacobsen, *The treasures of darkness: a history of Mesopotamian religion* (New Haven: Yale University Press, 1976), 233.

5 Conclusion

The evaluation of my Sky journal was done by applying the archaeography framework proposed by Graves and Poraj-Wilczynska. Even though the framework is designed for archaeology and Spirit of Place, it was used for the Sky; as the Sky is a Place that relates to me. To apply the framework, I stepped into the four roles. As my Scientific and Magician roles are closest to my personality, the framework made me aware of the other essential roles.

The Artist gave my creative side a chance to express my feelings through: photographs and poems; my feelings due viewing Sirius' rise for the first time; and my experiences of this nuclear explosion depicted by the distorted Moon.

The Scientist showed me to make good records and link my observations with observations, experiences and ideas/theories of other people. This sometimes revealed differences in ideas/theories.

The Mystic gave me the freedom to belong to the Heavens and to give it a mythical and spiritual atmosphere (Figure 20). I saw objects that might Scientifically not be there, but I belief I saw them. It provided me with a strong sense of belonging, due to the experienced Heaven's regularity.

Figure 20 Soft feelings due to imagined staircase towards Heaven (sea mist slowly dissolving on July 7th, 2013) <Barry Mason made picture on my request>

Finally the Magician looked at the application and use of the Sky. I used the Sky observations to improve my computer implementation and it also showed me that patience and observance is important to become aware of the Sky's aspects.

From the above, one can derive that the framework of archaeography worked well on the Sky as my Place. The framework was able to stimulate a diverse palette of experiences from this large and mystical Place.

I have not been the only person observing the Sky, beside my fellow-students; earlier cultures have used the Sky to provide wonderment, meaning and belonging.

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