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The Cave of Laughlessness, Sensory Deprivation, and Cognitive Depletion at Eleusis.¹

Abstract

This article explores the intersection of sensory perception, emotional experience, and ritual practice within the ancient Eleusinian Mysteries, specifically focusing on the 'Cave of Laughlessness'. I offer a unique perspective on sensory exaggeration, highlighting the heightened awareness of sensory input. The study delves into the experiential aspects of the Mysteries, considering the cognitive and emotional states induced by the rituals. By investigating the sensory manipulation, emotional engagement, and cognitive depletion experienced by initiands (those candidates for initiation), the article sheds light on the complex interplay of sensory experiences and religious significance. The discussion emphasises the role of the Cave of Laughlessness as a liminal space crucial in the initiatory journey. It examines the sensory and emotional impact it had on ancient worshippers. Through a multidisciplinary approach encompassing archaeology, neurology, and history, this article contributes to a deeper understanding of the sensory dimensions of religious practices in antiquity, offering insights into the ancient mystical experience and its enduring emotional resonance.

Essay

I am walking slowly into the shallow cave at the back of the so-called Ploutonion at Eleusis in late July 2023. The temperature is creeping into the high 30s, but the humidity is relatively low, and the wind is dry. I am only here to survey the site because I know I will need to return next year to delve more deeply into the site's layout and, of course, because I wanted to see the new museum. Suddenly, I am overcome with silence. I take a step backward – out of the cave – and the noise of the world returns. Cicadas,² mainly, but other noise too. Wind. A tour group over by the Roman Propylaia. I step forward. Silence. Backward. Noise. Forward. Silence.

I do this several times, moving towards the larger of the two caves, passing behind where the small temple would have stood. In my mind, I attempt to account for that building – remembering the dimensions of the 4th-century version laid out on the ground, considering the extent to which the small building might dampen and amplify ambient sound. I try to record the abrupt switch from noise to silence and back to noise on my phone, but I cannot tell how well I have managed it (as it turns out, not very well at all). Simultaneous to this, I know that I am in a heightened state of sensory awareness brought on by the hot and erratic bus journey, sitting next to a stranger whose hair occasionally brushed my bare arm. I cannot stand that feeling; even my own hair touching my skin induces pain or discomfort. I wore socks today, which was also an error – I am hyperaware of each crisscrossed fibre of cotton on the bottom of my foot and around my toes, sucking out all the moisture from my body. A bead of sweat runs down my spine. One part of me is too dry and another part too wet. One patch of sun cream that was not correctly rubbed into my forearm feels like the

¹ I would like to give thanks to the two anonymous readers from *BICS*, for their thoughtful and positive engagement with this piece. Thanks to Andrew J Roberts, Susan Deacy, and the Coimbra 2023 What's App group (Tyler Jo Smith, Ben Cassell, David Wilson, Bartek Bednarek, Lauri Reitzammer, Viv McGlashen, and Frances Pickworth) for thoughtful and stimulating conversation, enduring my weird thoughts about this paper and others, and a healthy dose of Daily Dionysos. I also want to acknowledge that I – shamefully – came across Michael Scott's chapter (2022) too late to incorporate into this piece.

² Interestingly, when I was working on the revisions for this piece I was jolted back to this by the sound of a jackhammer, filtered through my double glazing, from the construction site opposite us. It sounded exactly like the cicadas, reminding me – poignantly – of the role that sound plays in the experience of landscapes and why its absence is so notable.

residue of my children's slime stuck to my skin, and when I tried to rub it in again, the skin is irritated the opposite way, as though I have taken a scouring pad to it. I can still feel the tickles of the longer grass on my ankles and the wind that seems to gently scream in my ear. I am in a state of exaugurated sensory awareness – *sensory exhaustion* even; I notice the sound disappear, reappear, disappear in the shallow cave behind the Ploutonion.

I am Autistic, and I experience what I call 'sensory exaggeration', where my embodied experience of what I am *feeling* and *sensing* is – as the term suggests – exaggerated and lingering – sounds, smells, touches, tastes stay with me, sensations remain even after a stimulus has been removed. Sensory exaggeration is my own term for what I experience and can be loosely described as the positive counterpart to 'sensory overwhelm' or 'overstimulation'. Still, it is a well-documented phenomenon for Autistic people, where all sensory perceptions, including kinaesthetic and proprioceptive sensations, can be heightened or dulled, often changing between the two states unpredictably.³ Studies demonstrate that Level 1⁴ Autistic adults respond 'abnormally' to sensory stimuli compared to Allistic adults.⁵

Many researchers posit that Autistic individuals lack both a 'theory of self' – we are unreliable narrators of our own internal and external experience⁶ – and a 'theory of mind', hampering our ability to infer minds, thoughts, and behaviours.⁷ Because of these attributes, researchers posit that Autistic people cannot experience religiosity in the same way as Allistic people.⁸ 'Theory of Mind' helps people attribute and infer minds, thoughts, and behaviours. Some believe that Autistics are 'mind-blind' and cannot develop this awareness unconsciously, as neurotypicals do, but if they do develop it, it is later in life, consciously 'hacking' the neurotypical rules they've observed.⁹ We cannot enter another's mind to test if their experience is authentic or merely the 'performance' of self-hood.¹⁰ Yet my 'atypical' neurocognition let me experience an exaggerated sense of the subtle shift in ambient sound that an Allistic visitor to the site may have missed or discounted as important. However: shifts in the sensory landscape, whether we recognise them or not, alter the experience of that landscape, manipulating our thoughts and emotional responses.¹¹ In many ways, this mimics our ability to understand ancient people: we can theorise but can never accurately access their thoughts, feelings, and sensory experiences.

³ O'Neill and Jones 1997: 284; cf. De Jaegher 2013: 8.

⁴ The American Psychiatric Association included 'severity levels' in the diagnostic criteria for Autism Spectrum Disorder in the fifth edition of the Diagnostic and Statistical Manual of Mental Disorders (2013), replacing outdated terminology including 'Asperger's Syndrome' for Autistic people with lower support needs. It is well acknowledged in the Autistic Community that support needs fluctuate, and even those diagnosed 'Level 1' (i.e., those with the lowest support needs) sometimes have increased support needs. Descriptors of support needs (including the DSM-V's levels) are preferred over functioning labels among Autistics. I use person-first language (i.e., Autistic, Autistic person) rather than identity-first language (i.e., 'person with autism') as is preferred by me personally and by consensus among the Autistic community.

⁵ Crane et al. 2009: 223. Allistic means 'not Autistic' and does not preclude the individual here having some other neurodivergence, such as ADHD. 'Neurotypical' refers to any person who does not have any kind of neurodivergence, including Autism, ADHD, Tourette's Syndrome, and other neurocognitive conditions.

⁶ See, for e.g. Bustion 2017: 659-60; Lombardo and Baron-Cohen 2010; Williams 2010.

⁷ McCauley et al. 2019: 412.

⁸ For e.g. Norenzayan et al. 2012.

⁹ Baron-Cohen 1995: 137; cf. McCauley et al. 2019: 414-15.

¹⁰ Frith et al. 1994: 111.

¹¹ Schreuder et al. 2016: 3-4.

My sensory experience at Eleusis was both situated and not situated. Of course, the *situatedness* was of being on the archaeological site: I would never have experienced how sound travelled around and into the caves of the complex had I not been standing in those very caves. Still, in my mind, I was also uncoupled from the context of my own time-space. I considered the experience of standing in the same place but having the sensory landscape of the space I occupied manipulated by a building that no longer existed. This is a kind of *historico-environmental* cognition¹² whereby the physical landscape, my understanding of the historical landscape and function of the landscape, and my sensory perception of the audible intervention in the present landscape collided, and therein sparked an idea about what the sensory and emotional experience of historical actors might have been. One theory of Autism, ‘Weak Central Coherence’,¹³ posits that Autistics are detail-focused, not perceiving the ‘whole’. While this theory has been criticised for being concentrated on the deficit of Autistic cognition,¹⁴ there is an apparent capacity and advantage to such detail-focus, particularly when combined with ‘sensory exaggeration’. My *capacity* highlighted this small sensory dearth near the Cave of Laughlessness. This *absence* of sound – not just mirth or laughter, but a shutting off or dampening of an entire sense, constitutes a situated sensory absence – the cave is not merely ‘laughless’ because of Demeter’s emotional state, but there is an inability to make – or hear – laughter at all, a total ‘*laughlessness*’. I considered this void of sensory input against the ancient understanding of the site and its religious and mythological importance to ancient people engaging in the site.

Following in the well-trodden tracks of scholars like Maurice Merleau-Ponty, I am wary of defining or enumerating the senses.¹⁵ I, and other (but not all) Autistic individuals, experience Sensory Processing Sensitivity, linked with alexithymia,¹⁶ and this makes the definition of separate sensory and emotional states difficult. Yannis Hamilakis reminds us that not all people, especially across time, experience sensation and sensory input similarly and urges us to ‘recognise the sensuous and affective abilities’ of one another.¹⁷ My aim here is not to push an Autistic reading of sensory deprivation and stimulation onto the Eleusinian Mysteries in general, nor to the cave complex or the Cave of Laughlessness specifically (on this translation, see below). More simply, I aim to think about how the intersection of the natural and built environment, a religious mindset, and a heightened sensory perception might allow visitors to the site to have a ‘spiritual experience’, and what that experience might be. Alongside this, my own Autistic sensory intervention into the site (or perhaps the site’s sensory intervention into me), leads me to remove the emotive or spiritual aspects of the experience and to discuss the sensory input for its own merit.

¹² Cf. Wilson 2002: 629-32.

¹³ Frith and Happé 1994; Happé and Frith 2006; Shah and Frith 1993.

¹⁴ De Jaegher 2013: 3, with references.

¹⁵ Merleau-Ponty 1962 [1945]: 219-20.

¹⁶ McQuarrie et al. 2023.

¹⁷ Hamilakis 2013: 6.

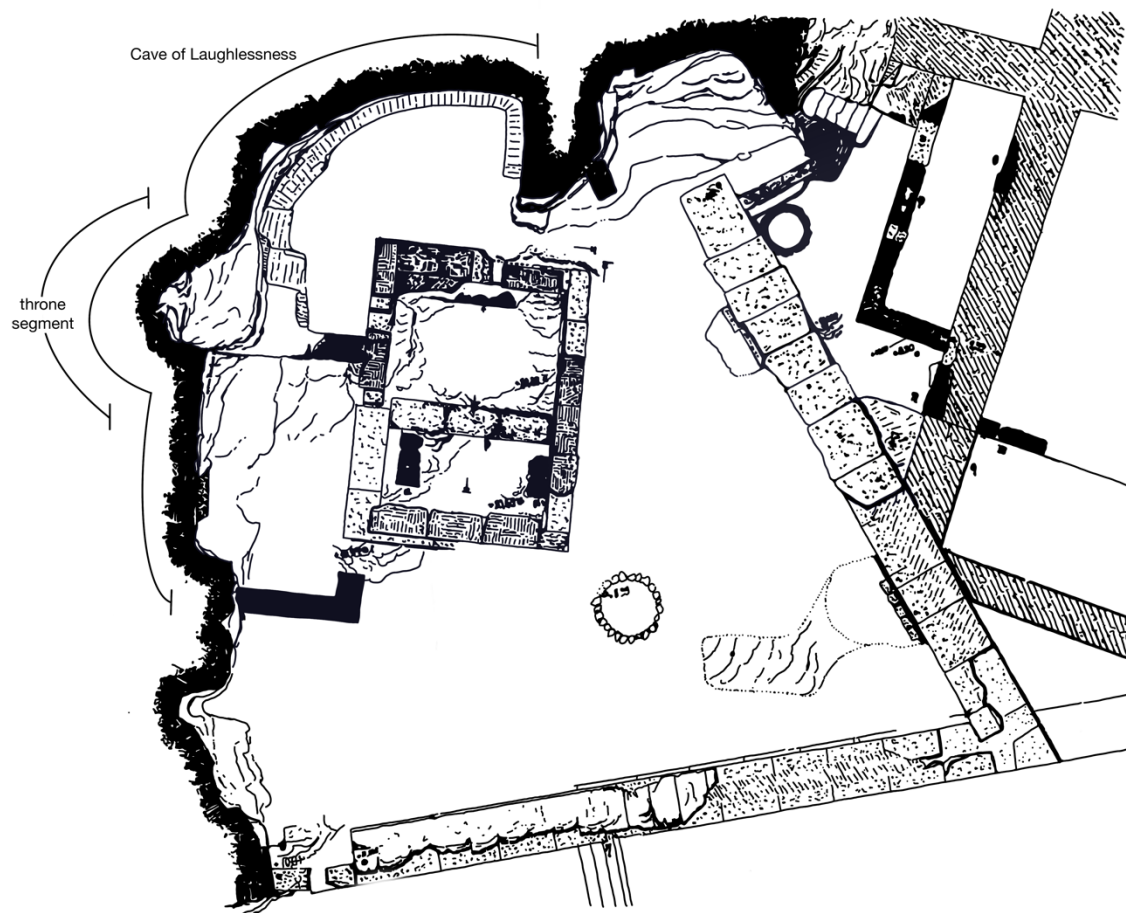


Figure 1 Plan of the Cave Precinct, (simplified) after Noack (1927) (by the author)

The Cave of Laughlessness and Sensory Deprivation

In 1958, a team of French archaeologists excavated the area of the 'Ploutonion' (fig. 1), including the smaller cave to the north of the 'Αγέλαστος Πέτρα',¹⁸ the Cave of Laughlessness, where they discovered the bones of oxen and sheep and other, more unusual sacrificial animals, including cats, hedgehog, owl, rodents, and hares, along traces of carbonisation¹⁹ - that is, the traces of burnt sacrifice. Kevin Clinton comments on this:

This inner cave, which is little known, obviously had religious significance, and it is hard to imagine what else this significance might be other than that of an opening to the Underworld.²⁰

This Cave of Laughlessness, often translated as something like the 'Mirthless Rock' or 'Laughless Rock',²¹ is the entirety of the larger of the two caves in the complex and contains a deeper segment that forms a natural sort of throne (labelled in the plan as 'throne segment'). It is around 2.5 meters

¹⁸ On the identification of the 'Αγέλαστος Πέτρα' with the larger of the two caves behind the 'Ploutonion' see Clinton 1992: 14-27.

¹⁹ Daux 1958.

²⁰ Clinton 1992: 23.

²¹ For πέτρα as cave see LSJ s.v. πέτρα A2; cf. Clinton 1992: 17.

in width and 1 meter deep and sits in the middle of the cave, opposite an entryway to the small 'temple'. Between the throne and the building's side entranceway, the cave floor has been paved. The 'walls' of the shallower segments of the cave to either side of the throne have evidence of being faced at some point, while the 'throne segment' has been left natural.²² In the western section of the cave, there is a man-made 'shelf' that looks like bench seating – Noack describes this as 'Aus dem Fels gehauene Bank' ('bench carved out of the rock') in his plan. Clinton notes that it seems likely this arrangement makes a good candidate for an Underworld entrance:

In any events, the cave with its natural seat fits all the evidence we possess for the 'Ἀγέλαστος Πέτρα, including proximity to a fissure which could easily have been taken to be an entrance to the Underworld.²³

It was here that it was believed that Demeter sat when she first came to Eleusis during her search for Persephone.²⁴ It is well documented that Demeter is depicted in her Eleusinian guise seated on a rock.²⁵ The throne segment calls out to the visitor to sit, and many do,²⁶ and it is also one of the spaces where I found the silence so *large*. I felt the silence was amplified by the 'wings' of the cave – so that it was not just the 'seat' portion that elicited a sensory response, but that this was enhanced by the way the silence reverberated around the throne. I (rather unscientifically) tested this by making small sounds at various points around this cave and found that each sound felt as though it reverberated back to me from the throne itself. The smoothing of the walls of these 'wings', being originally faced, would enhance this reverberation, making it more noticeable in antiquity and, thus, more characteristic of the ancient experience.

The arrangement of the caves, with – as Daux concludes – 'les traces de banquettes encore visibles dans trois des cavités rocheuses de l'enceinte du Ploutonion'²⁷ ('the traces of benches still visible in three of the rock cavities within the Ploutonion') reminds us of a natural version of the *klinai* set up in dining-rooms. And indeed, it may have been here that a small number of people – cult officials? the *epoptai* (return initiates – literally 'one who sees')? – broke their fast as Demeter is said to have done in the Orphic Hymn *To Mother Antaia*.²⁸ It is in another Orphic Hymn, *To Plouton*, that we learn that Hades brought Persephone to the Ἀτθίδος... ἀντρον δήμου Ἐλευσίνος, τόθι περ πύλαι εἶσ' Ἀίδαο ('Attic cave... in the district of Eleusis where the gates of Hades are').²⁹ Although it seems unlikely that the cave of Demeter's mourning and the cave entrance to the Underworld are the same place (after all, the crossover between the two does not occur in a single source), the fact that an Eleusinian cave is described as multiple places with deep emotional resonance to the Underworld adds to our understanding of this small cave complex being an area ritually associated with the Underworld. Where mythically, there may have been no crossover, it seems likely that

²² Clinton 1992: 24.

²³ Clinton 1992: 26.

²⁴ Apollod. 1.5.1.cf. h.Hom. Dem. 99, where she sits at the 'Maiden's Well' which is associated with the 'Well of Lovely Dances' mentioned later (272). Pausanias describes two separate wells, the 'Well of Lovely Dances' (1.38.6), and the 'Flowery Well' (1.39.1). The former of the two is identified with the well situated outside the 'Greater Propylaia'.

²⁵ See Karatas 2019: 148-50, with references.

²⁶ See, for e.g., Clinton 1992: fig. III.6.

²⁷ Daux 1958: 802.

²⁸ Orph. Hym. 41.4.

²⁹ Orph. Hym. 18.14-15; cf. schol. Ar. Eq. 785a Kosta = Suda s.v. Σαλαμίνοϛ

both aspects of landscape could be present in the minds of worshippers as they encountered the caves.

If my experiences of abrupt changes in the ambient sounds of the landscape were experienced in the ancient world, this could go some way to explaining the understanding of this space as a liminal one that existed between the living world and the underworld. The sounds that were dampened were precisely those very specific sounds that make you feel as though the world is alive – insects, the footsteps of other visitors stomping up the Sacred Way, voices, birds, wind. It felt like walking through an invisible veil that blocked out the living essence of the world. Descriptions of the Underworld in literature often include aspects of sensory deprivation – Odysseus cannot touch his dead mother,³⁰ epigraphic evidence describes the underworld as 'Αἴδα δῶμα μέλαν' ('the dark house of Hades'),³¹ and Hades himself is invisible.³² There is no explicit silence in literary descriptions of the Greek Underworld, but there is a foreboding silence articulated in the grave *stelai* of ordinary (and extraordinary) Athenians. To take a single example, Pausimache,³³ a young woman who looks longingly at her own (unrepresented) *eidolon* reflected at her in a hand-held mirror. The empty mirror acts as a conduit between the deceased and the viewer.³⁴ In silent conversation, the unmarried girl and the audience understand that what is represented on this *stèle* is not an accurate reflection of Pausimache's life as it was, but her life as it may have been if she had not died an untimely death.³⁵

Situated, Emotional, Mysteries

The Eleusinian Mysteries³⁶ were themselves highly situated. Although the cult of Demeter Eleusinia seems to have spread throughout the Greek world,³⁷ the Mysteries themselves could only be practiced in Eleusis, where Demeter herself had established them. By the time participants in the Eleusinian Mysteries reached the Lesser Propylaea, just inside of which was the Cave of Laughlessness, they would have processed the roughly 22 kilometres from Athens to Eleusis, stopping along the way for singing, dancing, libations, and ritual washing³⁸ – all contributing to the sensescape of the multi-day ritual (and perhaps eliciting aspects of the sensory exaggeration that I experienced). Even if, as some epigraphic and literary evidence suggests, some processors rode the distance in wagons,³⁹ many of the participants would have had extra burdens to their procession, including armour for ephebes, who were also expected to march μετὰ τοῦ εἰθισμένου σχήματος τῆς ἄμα ἱεροῖς πομπῆς ('with the accustomed order of the procession with the *hiera*').⁴⁰ This is to say that even at the end of the long procession, they were expected to maintain the posture and tenor they held at the beginning of the festival.

³⁰ Hom. *Od.* 11.204-206.

³¹ *SEG* 41.540A; 44.463[3]

³² Both in name, perhaps, and via his attribute the 'cap of invisibility'. On Hades meaning 'unseen one' or similar, see Beekes 1998: 18, 2010: 34. On the 'Cap of Invisibility' see for e.g. Hom. *Il.* 5.844-845.

³³ Athens: National Archaeological Museum 3964; *CAT* 1.283.

³⁴ Squire 2018: 535.

³⁵ Cf. Burton 2005: 28.

³⁶ I will not here go over the practicalities and programme of the Mysteries themselves, for which see the excellent treatments by Bowden 2010: 26-48 and Bremmer 2014: 1-20.

³⁷ Though it is not entirely as straightforward as this, for which, see Bowden 2007.

³⁸ Hsch. ρ 202; Ar. *Ra.* 313; cf. Bremmer 2014: 6.

³⁹ *LSCG Suppl.* 15; Ar. *Plut.* 1014; Dem 21.158; Plut. *Mor.* 842a.

⁴⁰ *IG* II² 1006.12-13, trans. Robertson.

Arriving at Eleusis, all the participants would rest and then spend the night in revelry, honouring the goddesses.⁴¹ The following day, sacrifices would take place, and after sunset, the initiands would enter the sanctuary and head towards the *telesterion*, where over two consecutive nights, they would be initiated.⁴² Our later Christian sources suggest that there might have been a kind of abstracted 'sacred' or 'mystic drama'⁴³ in which the initiands were sent into the sanctuary in the dark to search for the missing Persephone. After the goddess was recovered (signalled by a bell, rung by the *hierophant*), the initiands were called to assemble, and the culmination of the revelation took place. The entire festival process is one of cycles of emotional and physical exertion and rest, which emulates the cycles of exertion and rest that Demeter herself underwent in the aetiological narrative for the rites: she arrived at Eleusis, having spent nine days and nights wandering the earth looking for Persephone, without consuming anything.⁴⁴ She rests; and then undertakes the physically and emotionally charged duty of looking after the infant Demophoon, culminating in an angry outburst during which there is an all-night vigil of women held in her honour,⁴⁵ perhaps reflecting some reality of the mortal propitiation of the goddess at the Mysteries themselves.⁴⁶ She negotiates with Zeus, using other divinities as proxies.⁴⁷ She is reunited with her daughter and must undergo the simultaneous joy of their reunion and the pain of hearing Persephone's experience of abduction.⁴⁸ Only after this emotional oscillation does Demeter teach the Eleusinians her rites. This turmoil is reflected in those rites, and by the time initiands arrive at the sanctuary of Demeter in Eleusis, they have already been made physically and emotionally tired, and then must undergo participation in a separate programme of events which is also designed to make them both physically and emotionally tired and sensorily confused. Finally, at the end of the festival, participants were able to mingle and engage in celebratory events, including visiting a fair.⁴⁹ Presumably here, too, they discussed their experience of the preceding days, cementing their memories in a community environment.

Sensory Manipulation and Cognitive Depletion

The beginning of the sacred rites, as discerned from artistic and other sources,⁵⁰ was not the abduction of Persephone, but rather rituals began at the analogue of Demeter's exhausted mourning. This is to say that physical and cognitive exhaustion was built into the ritual process of initiation, not as a consequence of participation but as a fundamental aspect of it. The layout of the sanctuary reflects this; the cave complex is the first part of the site the visitor encounters after passing through the Lesser Propylaea. Gateways are generally used to direct traffic, ensuring that people move in particular ways through sites and that only the right people are able to access those sites. The configuration of the inner gateway means that as you enter the gateway into the main part of the sanctuary, a space reserved for initiands (those undergoing initiation for the first time) and initiates (those who have previously undergone initiation), the Cave of Laughtlessness, including the throne segment, would be immediately on your right-hand side. However, the Cave

⁴¹ Bremmer 2014: 7-8.

⁴² Bremmer 2014: 8-9.

⁴³ On the 'sacred drama' at Eleusis: Bowden 2010: 38; Clinton 1993: 118-19; Richardson 1974: 25-26.

⁴⁴ H.Hom. *Dem.* 41-51.

⁴⁵ H.Hom. *Dem.* 90-304.

⁴⁶ Although we must be extremely wary of ascribing a 1:1 relationship between the Hymn and the ritual realities of the Mysteries, cf. Clay 1989: 204; Richardson 1974: 234.

⁴⁷ H.Hom. *Dem.* 315-340.

⁴⁸ H.Hom. *Dem.* 387-386.

⁴⁹ Plut. *Mor.* 635a.

⁵⁰ For instance, the Ninnion Tablet, cf. Clinton 1992: 84-91.

itself would not be visible until one passed through the gateway and had moved slightly up the Sacred Way toward the Telesterion because of the small temple building, whose first iteration was built in the sixth century BCE.⁵¹ One would only see the top of the cave towering over the small building, but the throne itself would be hidden – perhaps provoking the potential for Demeter herself to be revealed. As the visitor moved up the Sacred Way, the Cave would become the first sacred landmark they would see, and it would appear above them: the ground level of the cave precinct is around two meters above the ground level of the sacred way. This is, therefore, the very first thing ‘revealed’ to the initiand, beginning their journey of revelation and Demeter began her own outpouring of sorrow, and it is revealed through careful manipulation of sight and sightlines. This enhances the overwhelming emotive and sensory intervention of the precinct on the initiand, as it appears to loom over the pathway, manipulating sensory and emotional responses during the very first steps into the sacred – and secret – space. This cave precinct, then, represents both the beginning of the journey of the initiands and the beginning of the ‘sacred drama’ in which Demeter searches for Persephone. Moving up the sacred way, initiands would be further disoriented by the strangeness of the site. In general, ritual practices in Greece took place outside, but at Eleusis large parts of the festival would have taken place inside a special building, the *Telesterion*. The building was more like a columned hall than a traditional Greek temple, with rows of stepped benches cut along the walls to accommodate the participants. The main parts of the ‘revelation’ rituals occurred at night-time. This is not uncommon in Greek ritual practice, but the darkness coupled with the setting would have enhanced the participants’ disorientation, particularly as religious personnel and, perhaps, other participants moved in between the columns wielding torches, creating a flickering effect.

People make sense of the world around them via a complex network of predictive modelling. The brain constructs models of expected experience based on ‘top-down’ data based on a person’s prior (cognitive and embodied) knowledge and understanding. These models are constantly evolving based on new information, particularly from the body’s sensory apparatus,⁵² what we might call ‘bottom-up’ data. In the context of the Eleusinian Mysteries, ‘top-down’ information is scarce because of the secretive nature of the event. Of course, the public aspects – including the various events held in Athens and the procession to the site – would be known to observers, and this would have provided an anchor for the model of expectation in initiands. A potential new initiand would have been first introduced to the process of initiation by a previously initiated friend who will become their *mystagogues*.⁵³ This person, having gone through the same cognitively confusing ritual process sometime in the past, will have memories of the event, though these will have been formed by their own interpretation and confusing experience. Therefore, their guidance will also be coloured by this process. Not much about this system of ritual mentorship or sponsorship is known,⁵⁴ and the extent to which they would have recounted memories of the more secretive aspects of the ritual would have varied from person to person. Therefore, even before the ritual process begins, ‘top-down’ models would be manipulated by ‘bottom-up’ data, even if this were only the anxiety and excitement of the unknown. However, once the ‘secret’ aspects of the ritual begin, even the ability for this ‘bottom-up’ data is disrupted. Participants are not only

⁵¹ Cf. Mylonas 1961: 99, 145.

⁵² Schjødt et al. 2013: 41.

⁵³ Posidonius, *fr.* 368; Plut. *Mor.* 795e, Dio Chr. 12.27, Menander *fr.* 500; LSCGS 15, Plut. *Mor.* 765a; Bremmer 2014: 3.

⁵⁴ However, per Bowden 2010: (32), these roles are only present in the evidence for the Eleusinian Mysteries from the first century BCE.

physically but cognitively tired, their ability to form and interpret sensory and emotive data is impeded by a process of cognitive depletion. This is because we each have a limited capacity for cognitive tasks.

We can easily see how the ritual process undertaken during the Eleusinian Mysteries has a number of elements that contribute to cognitive depletion. The participant is asked to suppress emotional and sensory input at various points. Physical tiredness is induced during the lengthy procession and overnight rituals in the sanctuary. They are forced to feel and then suppress a variety of ‘negative’ emotions: fear, worry, anxiety, and concern, during the episode of the ‘mystic drama’. The darkness of night-time rituals and the flickering torchlight moving through the sanctuary disables the initiands’ ability to focus firmly on any specific object. The din of noise through the night enhances this disorientation. The experience of the initiand is so steeped in sensory deprivation that the name they are given, *mystes*, means ‘one who closes [their] eyes and/or keeps [their] mouth shut.’⁵⁵ Finally, at the finale, the mystery is revealed by sight. All this disorientation serves to dull the initiands’ ability to perform high-order cognitive functions, including executive function, attentional processes, emotion regulation, and conflict monitoring,⁵⁶ as the demand for cognitive resources becomes higher than the resources available. This cognitive depletion makes it more difficult for the brain to accurately employ predictive modelling, including suppressing the formation of strong episode memory and the processing of meaning.⁵⁷ This means that individuals are spending more cognitive resources on ‘low-order’ tasks than they usually would.⁵⁸

This makes individual participants more susceptible to collective understanding, either ‘pre-installed instructions’ or post-ritual explanation by a religious authority. The innate predictive model of the brain is shut down as situationally reliable sensory information, which is needed to make these systems work properly, becomes completely unavailable.⁵⁹ There are several modes in which memory formation is ‘book-ended’ around the ritual (as literarily, the establishment of Demeter’s rites is ‘book-ended’ by the story of Persephone’s abduction in the Homeric *Hymn to Demeter*). Collective understanding is enhanced when individuals undertake post-ritual ‘debriefing’, which may have been one of the duties of the *mystagogues*, but would probably occur with friends and fellow initiates (of the same group or a previous one) regardless.

Unusually in Greek cults, the religious personnel of the cult were knowledgeable authorities who had specific roles to play in the guidance of initiands, so it seems perhaps more likely that these cult personnel were the main ‘ritual models’ for initiands, and would have been giving direction to the tired, overwhelmed, confused participants, primed to follow direction without questioning the logic behind the commanded movements. The three main officials, the Hierophant,⁶⁰ who revealed the sacred objects; the Daduchos,⁶¹ who carried the torch and presumably provided lighting during revelation; and the Priestess of Demeter and Kore,⁶² were all lifetime appointments. Finally, as is

⁵⁵ Foley 1994: 66.

⁵⁶ Cf. Schjødt and Jensen 2018: 319.

⁵⁷ Schjødt and Jensen 2018: 321.

⁵⁸ Liénard and Boyer 2006: 823.

⁵⁹ Schjødt et al. 2013: 41; Schjødt and Jensen 2018: 322.

⁶⁰ Clinton 1974: 44-46.

⁶¹ Chidester 2000: 67.

⁶² Clinton 1974: 76.

(in the words of Christiane Sourvinou-Inwood) “extraordinarily rare”⁶³ in Greek religion, the Mysteries of Eleusis were divinely revealed. The ultimate religious authority was the goddess herself. This multi-layering of authority and story about the meaning and events of the ritual, coupled with the cognitive depletion of the initiands themselves, meant that there was a remarkable ability for memory and meaning to be imprinted into the ritual. The Cave of Laughlessness, then, is an important landmark not only as the starting point for Demeter’s emotional and sensorial experience of the site of Eleusis but also as a place of divine revelation.

Conclusion

I want to briefly very turn to an artwork found in the vicinity of the Cave of Laughlessness, where we have the largest relief of the sanctuary (fig. 2). It was dedicated around 100 BCE by the priest Lakrateides and features Hades and Persephone doubled, as it were. On the left, alongside Demeter and Triptolemos, are Kore and Plouton. Thea is directly in the centre of the composition, with Theos to her right. As others (particularly Clinton, following Nilsson⁶⁴) have intimated, this composition represents Hades and Persephone at two points in their cycle. Theos and Thea represent the pair in their guise as rulers of the Underworld, and their ‘renaming’ here, Clinton suggests, ‘reflect the fact that in the Mysteries these underworld gods became approachable, so much so that at Eleusis they even receive sacrifice.’⁶⁵ And Thea and Theos did receive sacrifices here, which we know from the archaeological evidence discussed above and from epigraphic evidence that names the pair, along with Triptolemos and Euboleus, as the recipients of sacrifice.⁶⁶ This appears to show the divine family after resolution. Persephone is both Kore when with her mother and Thea when with her husband. Their presence in the precinct that includes the Cave of Laughlessness points to its importance in the resolution of the story and the institution of the Mysteries and, therefore, the initiands. This is where Demeter taught the locals her rites, facilitating an ongoing engagement with Demeter, Persephone, and Hades, linked by their sensory and emotive journey, tied together through the metacognitive process of meaning-making pre- and post-ritual.

⁶³ Sourvinou-Inwood 2003: 28.

⁶⁴ Clinton 1992: 51, 114-15; Nilsson 1952 [1935]: 545, 55-56.

⁶⁵ Clinton 1992: 51.

⁶⁶ *IG* I³ 78:37-40, and cf. *IG* II² 4683; *I.Eleusis* 83.



Figure 2 Lakrateides Relief, Eleusis, Archaeological Museum

My experience of the site, in some ways, mirrors that of the initiand. Although I knew what to expect when entering the site – both from previous visits and from extended study – I was not prepared for the sharp sensory intervention and exaggeration I experienced on this particular day. It also made me consider if I would be willing to undergo initiation in the ancient world and think about how much of my experience is reflexive of ancient emotional experiences. Being anxious comes hand-in-hand with being Autistic and feeling anxious around new and unfamiliar situations⁶⁷ is certainly familiar to me. I also appreciate how my cognitive load can be depleted very quickly in such situations, where I fall back on rehearsed ‘scripts’ and am susceptible to unquestioningly undertaking tasks assigned to me by a perceived authority figure.

In exploring my own sensory experience at the Cave of Laughlessness in Eleusis, this article has aimed to highlight the importance of situated, embodied engagement with ancient sites. My heightened sensory awareness as an Autistic person allowed me to notice subtle elements of the soundscape, prompting considerations about how changes to the built environment over time may have impacted sensory perception for ancient visitors. The article has also examined how the ritual program of the Eleusinian Mysteries was carefully designed to manipulate the physical, emotional, and cognitive states of initiands. The progression of exertion and rest, the disorienting night-time ceremonies, and the overall aura of secrecy all contributed to a state of cognitive depletion in participants. In this weakened cognitive state, initiates would be more receptive to the mystic revelations of the cult personnel.

The sanctuary layout directed initiands to first encounter the Cave of Laughlessness, representing Demeter's mournful state at the loss of Persephone. This not only aligned with the mythological

⁶⁷ Stark et al. 2021: 574-75.

origins of the cult but primed initiates for an emotional journey akin to the goddess's own trauma and eventual resolution. The sensory deprivation of the cave evoked associations with the underworld, blurring liminal boundaries. This extended to attempting to form an understanding of the *feeling*, rather than the theory, of cognitive depletion during the secretive ritual.

In the end, personal sensory engagement with historic landscapes allows modern perspectives to intersect with past meanings and experiences. While the Eleusinian Mysteries remain largely impenetrable, examining the remains through an experiential lens provides one avenue for imagining the bewilderment and wonder of ancient ritual. What emerges is a view of Eleusis as a carefully orchestrated space designed to transport initiates into a heightened sensorial and spiritual plane.

During my visit, there was an engagement between myself, my exaggerated sensory perception, the cicadas that I imagined were both 'of now' and 'of then' – thousands of years ago – the landscape – half natural, half-built – and the people who decide that this was a place that a goddess sat down and cried for her lost daughter. And I understand that. My own children were hundreds of kilometres away at home in London, and I have always had a problem with disentangling sensory and emotive events of the present and the past, so I sat down and cried. I cried for Ainsley and Nerys, my children at home, whom I missed. I cried for Persephone, Demeter's lost daughter. I cried for Persephone, who I – a lowly initiate – was desperately searching for in this place between the words of the living and the dead and whom I could not find. I experienced this because, with my exaggerated sensory awareness, I, too, was in a cognitively depleted mindset. Unable to do anything except feel and hear and see and experience – and unable to make meaning until much – much – later.

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