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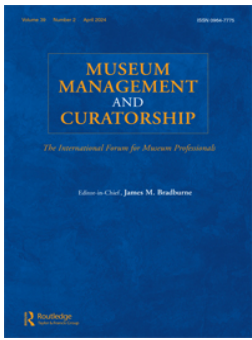
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Awe in the museum: casting light on the role of the curator

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ABSTRACT

Most discussions of awe in psychology and philosophy refer to experiences of this emotion occurring in museums; however these discussions tend to focus solely on the exhibit (e.g., the art masterpiece) as the emotion elicitor, overlooking the spatial *context* of the exhibition – hence overlooking the role and agency of the curator. Engaging with this oversight, I argue that curatorial intervention is crucial to emotion elicitation in museums and should be accounted for in analyses of awe in these spaces. I substantiate this argument by engaging with interdisciplinary theory on awe, and showing how curatorial intervention can act on awe determinants: vastness and the need for accommodation, and connected states of attention. The aim is to cast light on the role of the curatorial in experiences of awe in museums, and through that, contribute to a better understanding of this emotion in the fields of museum studies and museum practice.

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Awe in the museum

Awe is a mysterious, powerful emotion. It has been defined as ‘the feeling we experience when we encounter vast mysteries that transcend our understanding of the world’ (Keltner 2023). We experience awe when we feel overwhelmed, transcended by something that we perceive to be greater than ourselves – an art masterpiece, a landscape or a newborn baby (Keltner and Haidt 2003). Psychologist of awe Kirk Schneider (2017, 105) holds that ‘the sense of awe has rich potential to reform the very building blocks of modern industrialized society’; his words resonate with those of another psychologist, Michelle Shiota (2021, 87) who synthesizes the findings of recent research: ‘awe has been found to promote a heightened concern for others – feelings of connectedness, humility, helping of strangers, proenvironmental attitudes, and behavioral intentions’. Along similar lines but from a different disciplinary standpoint, political theorist Jane Bennett (2001) postulates a link between experiencing enchantment and motivation for ethical behaviour. By revealing our responsiveness to what surrounds us, awe can make us feel deeply connected to other human beings and to the planet. Indeed, awe has been credited for nourishing ‘our capacities to cooperate, form communities, and create

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culture that strengthens our sense of shared identity' (Keltner 2023). In divisive, challenging times when we are called to overcome factionalism and come together as societies to collaborate towards common goals such as the containment of global epidemics or ecological survival, the ability to cultivate awe takes up a renewed importance.

Museums are precisely places where we can cultivate awe. Museums hold special affective potential as they 'have the power to *enchant* and in so doing, they stand as seedbeds for human generosity, ethical mindfulness, and care for the world at large' (Perry 2019, 354). Awe has been at the core of the museum experience since the very origins of this institution as sixteenth century cabinets of curiosity. Awe continues to be relevant in museums today due to its documented positive effects on learning (Valdesolo et al. 2017) and well-being (Anderson et al. 2018) and more broadly the emotional support it offers in times of global ecological, health and societal crises (see Chirico and Gaggioli 2018 for a review of the literature).

In spite of the potential benefits of awe, the dynamics through which visitors experience this emotion in museums – or, seen from the analytical perspective of this paper, the dynamics through which this emotion is invoked in museums – remain poorly understood. This appears to be the case within the heritage sector at large: 'enchantment effects are simultaneously well-recognized yet poorly understood amongst archaeologists and heritage specialists' (Perry 2019, 354). Yet Bennett (2001, 4) argues that enchantment 'can be fostered through deliberate strategies'. This combination of nebulosity and agency invites an inquiry into the dynamics of awe experiences in museums.

In the fields of museum studies and practice, awe is an emerging area of interest. In recent years, studies of awe have been conducted in art and science museums (Luke 2021; Price et al. 2021); these are empirically centred, quantitative analyses of visitors' emotions. These studies are producing insights that pave the way to the theorization of awe in museums, that is, the development of a theory of awe. Understanding visitors' reactions, however, is only half of the task, the other is accounting for the work of curators in assembling the various exhibition elements: objects, texts, images, digital and physical environments¹ – and its role in the production of exhibitions that affect us. More specifically, I use the phrase 'curatorial intervention' to refer to the broad set of decisions (and related actions) having an impact on the exhibition (that is, all the decisions informing visitors' experience, from objects' selection to their interpretation in the panels and captions, to the way they are physically presented). Therefore, the term 'curatorial intervention' encompasses here the collaborative work of the composite group of museum professionals (collections curators, conservators, exhibition designers, museum educators among others) who take part in such decision-making. I use the phrase 'curatorial intervention' to capture the manifestation of curatorial agency (following Levine 2021).

This article aims to contribute to the study of awe in museums by drawing on advances in psychology in view to lay the foundations of a theoretical perspective on awe in museums that integrates and accounts for the place and role of the curator in the elicitation of this emotion.

Experiences of awe occurring in museums have served as exemplifications of this emotion in a range of disciplines, including art history, psychology and philosophy; in these studies, museum objects, and notably artworks, are cited as the quintessential elicitors of awe (e.g., Elkins 2005; Freeman 2014; Keltner and Haidt 2003; Shiota 2021; Winner 2018).² However, problematically, these studies tend to focus solely on the

exhibit (often an iconic painting or sculpture) as the awe elicitor, overlooking the spatial *context* of the exhibition (and the museum at large), and therefore overlooking the role and agency of the curator.

There is awareness among psychologists (Tinio et al. 2014) that a museum visit is much more than the sum of the experience of individual artworks, and that a complex set of interacting factors, the ‘museum effect’ (Smith 2014), is determining the overall museum experience:

It is the entire visit that is the unit of analysis here as opposed to any one particular work of art. (...) for many visitors, it is the museum itself (or the special exhibition) that underlies the nature of an exceptional visit; it is the museum that produces the effect. (Tinio et al. 2014, 214, emphasis in the original)

However, even in psychology studies that acknowledge the complexity of the museum experience and set to study it in its entirety and diversity (as in Rodriguez et al. 2021 for instance), the curatorial intervention continues to elude analysis. This is possibly the result of perceiving the curatorial intervention as lying beyond the scope of psychological analyses, usually focusing on the study of visitors’ emotional responses. This explanation is suggested by explicit calls from psychology to complement their analyses by investigating curatorial intentions (Rodriguez et al. 2021, 10). This makes sense, as museums qualify as pertinent and exciting foci for studying awe across disciplines: they offer an empirical vantage point that affords unique methodological approaches. For instance, it has been pointed out (Schneider 2017, 104) that quantitative studies of awe in psychology tend to fail to take into account ‘the deeper, experiential aspects of awe that resist articulation by quantitative assessment’. To grasp these aspects, phenomenology-inspired qualitative approaches are suggested by virtue of their capacity to generate a ‘poetically informed, subtly detailed description of how awe is lived’ (Schneider 2019, 103). Museums can provide relevant empirical contexts for this kind of qualitative studies of awe, as they provide *in situ* opportunities for observing, describing and analysing awe in its most intimate, lived expressions – among both visitors and museum professionals.

Building on these considerations, I suggest that curatorial intervention is crucial to the elicitation of awe in museums – and therefore it is likewise crucial that we turn our scholarly attention to it. To substantiate this argument, I first engage with interdisciplinary theory on awe and its determinants, and subsequently show how curatorial intervention can act upon awe determinants. My reflection is informed by the following questions: what do experiences of awe in museums entail? Can findings from affective sciences help us understand experiences of awe in museums? And conversely, given that ‘as much as psychology can shed light on what happens in museums, it can also learn a great deal from the perspective of museum scholars’ (Tinio et al. 2014, 197), what can the museum standpoint contribute to interdisciplinary investigations of this emotion? These questions provide the motivation for pursuing this article’s objectives: (i) engage with key findings and insights on awe emerging from affective sciences (mainly psychology of emotions), and (ii) begin to develop the concept of awe in museological terms by casting light on and examining the agency of the curator. The broader hypothesis upon which these objectives rest is that affective sciences theories of awe can help us better understand how this emotion plays out in the context of museums, and by extension how museums (their objects, environments, storytelling) affect visitors; and conversely,

a better understanding of museums and their collections can engender more pointed approaches (including methodological) to the study of awe across disciplines.

Methodologically, I draw on auto-ethnographic research methods (Behar 1996; Butz and Besio 2009; Ellis and Bochner 2000) aiming to capture and critically reflect upon my own cognitive and affective responses to different display approaches. My responses to museum displays are informed by my individual positioning: as a museum studies scholar, my interpretation of displays is inevitably filtered through my professional interest in museum theories and practices I have been exposed to. However, when approaching a museum, rather than a museum scholar, I am first and foremost a museum visitor who wishes to be moved by the visit. Academic thinking only unfolds in a second moment, when rationalization and analysis come into play. My very first reactions remain 'affective', in the sense of being immediate, spontaneous, pre-cognitive and pre-personal (Massumi 1987, p. xvii). The emotions felt during a museum visit influence my overall experience. This includes my immediate bodily reactions in the exhibition space (for instance a sense of ease or discomfort, of being drawn towards, almost pulled in by the display, or conversely distancing myself from it) as well as the meaning that I begin to weave in my mind as I take in the various exhibition elements (for instance visual stimuli might direct my gaze and movement in the exhibition space, leading me to pay more attention to specific elements). My emotional responses will also affect the post-visit: my interpretation (where my 'academic identity' comes into play as I draw on museum theory concepts and recollections from other museum practice) and meaning-making (through analysis, comparison, inference etc.) Emotions also shape my memories: what I will retain from the visit, what emotional valence I attach to those memories, and how I will integrate them in my lived experience, and my personal and professional identities. It is this wide, deep-reaching, capillary influence of emotions, framing and imbuing every aspect of the museum experience, that I wish to capture through auto-ethnography and carefully examining my own emotional responses as a tool to glean research insights (for a discussion of affect as method see also Varutti 2021).

A terminological note: as this article contains references to both affect and emotions, it may be useful to clarify the distinction between the two. Affect is taken here to denote, very broadly, 'an emerging, unspecified state of pleasant/unpleasant arousal' (Plantin 2015, 2). Affect has been described as a subtle shift in consciousness from one state of being to another (Baker 2015); such shifts are thought to lie at the origins of emotions (Bencard 2014, 30). If affect refers to the mental ground from which emotions stem, the latter occur once the realization of being affected has set in, and we are able to identify and label our emotional response, that is we become aware that we are happy, relieved, or fearful. I mostly refer to emotions in this article; whenever the term affect is used, it is meant to encompass emotions (affect as both the shift in consciousness and its recognition as emotion).

Awe: defining an elusive concept

In psychology there has been a recent revival of interest towards awe (Schneider 2017).³ The definition of awe as 'the feeling we experience when we encounter vast mysteries that transcend our understanding of the world' (Keltner 2023) rests on two key elements: a sense of vastness, and a need for accommodation. These were

identified as the two defining features of awe in a field-defining article by psychologists Keltner and Haidt (2003). The analysis of awe in museums developed in this article is framed by Keltner and Haidt's work. The authors (2003, 303–304) explain that 'vastness refers to anything that is experienced as being much larger than the self, or the self's ordinary level of experience or frame of reference'. Importantly however, the element of vastness has been detailed as 'a characteristic of the phenomenon of awe – but not in terms of the triggering stimulus but in terms of what the beholder makes of it' (Weger and Wagemann 2021, 1387); therefore feelings of vastness can be linked to the *response* to an object or event eliciting awe. The concept of accommodation draws on the work of psychologist Jean Piaget and refers to the 'process of adjusting mental structures that cannot assimilate a new experience' (Keltner and Haidt 2003, 303–304). In other words 'a phenomenon stretches our cognitive capacities beyond what can be mastered out of already existing knowledge structures, hence leading to a broadening of available mental representations' (Weger and Wagemann 2021, 1386). Psychologist Michelle Shiota (2021, 86) explains that awe is 'the moment when we're faced with a blank space in the model of which we were unaware, or we are reminded of a gap in understanding so vast we can never possibly fill it'.

Taken together, vastness and the need for accommodation engender a 'small self', that is, a diminution, a shrinking of the sense of self when confronted with the awe-inspiring object (Bai et al. 2017; Weger and Wagemann 2021). In the words of cultural historian Peter De Bolla (2012, 159) 'it is almost as if my Self lacks consistency or precision' as a result of being completely absorbed into the source of awe. Shiota (2021, 86–87, drawing on previous studies) explains this phenomenon in these terms: 'we feel small – personally insignificant in response to an awe-eliciting stimulus. Our minds detach from the mundane problems and concerns that typically hold our attention. We feel the presence of something greater than the self, but also part of it – identity expanding to include connection with humanity and living beings in the self-concept'.

Awe entails a letting go of efforts to understand and letting oneself be engulfed in the present emotional experience, becoming one with the object of observation. In awe, we are overwhelmed, surprised, elated by something incomprehensible or sublime (Gallagher et al. 2015, 29; Reinerman-Jones et al. 2013, 298). Awe therefore implies both *awareness* of our incapacity to understand, and *acceptance*, we let go of understanding, we give in to what is beyond us.

Awe is a multi-faceted feeling combining positive and negative emotions; whilst we tend to associate awe with positive experiences ('life-changing' moments engendering uplifting feelings), it can also relate to frightful, confusing or otherwise upsetting experiences, therefore engendering negative emotions (as for instance witnessing a powerful force such as a volcano eruption, Weger and Wagemann 2021).

Beyond these affective nuances, what denotes awe is a state of elevated attention; I discuss this in the next section.

A suspended (In)attention

The encounter with a source of awe produces the effect of jolting us out of passive receptivity and into full alertness (De Bolla 2012; Shiota 2021). We may feel temporarily overwhelmed as we try, unsuccessfully, to make sense of the amazement. It has been

argued that the state of alertness engendered by awe is tinged with its opposite: distraction. Peter De Bolla (2012, 159) expresses it in these terms ‘a form of inattention (...) a heightened state of perception yet at the same time lacking focus’. Psychology studies show that during awe experiences our minds are not passive, but actively engaged in gathering as much information as possible (Shiota 2021, 86).

How might this ambivalent state come into being? Building on the dual criteria of vastness and need for accommodation discussed above, it could be argued that in awe we experience a temporary overload and misalignment between our sensory perceptions, cognitive abilities (striving, and failing, to make sense of those perceptions) and emotions (feeling overwhelmed or humbled, in connection with feelings of small self). The interpretation of this unfocused attention as a misalignment of sensory, cognitive and emotional experiences draws in part on anthropologist Alfred Gell’s theory on the technology of enchantment (1992). Gell predicates that the technical difficulty inherent in the making of objects that elicit awe is actually a form of intellectual resistance: the beholder struggles to understand how those objects came into being, and the failed attempt to understand leads to the conclusion that some kind of ‘magic’ is at play (1992, 49). Gell’s theory resonates with psychology’s need for accommodation; for Gell, value, appreciation, and the feelings of being overwhelmed emerge from the ‘mismatch between the spectator’s internal awareness of his own powers as an agent and the conception he forms of the powers possessed by the artist’ (1992, 51–52 [sic]). This momentary overload and mismatch of stimuli (and ensuing feelings of unsettledness and confusion) bring about a state of heightened attention that cannot have a resolution: whilst attempting to make sense, stretching our mental frames, searching for accommodation, we are suspended, as if temporarily under a spell. This state of suspension is key to awe experiences: awe engenders a change in pace, it forces us to slow down and pause. Shiota (2021, 86) reports that when in awe ‘we experience time as moving more slowly and that some cardiac activity supporting physical exertion dials down’. When in awe, we slow down the pace of the thinking and become one with the external stimuli, all our senses are absorbed into that moment of pointed, yet diffused attention; the object/subject divide is temporarily elided.

What happens when we transpose these considerations to the context of museums? I turn to this in the next sections.

Emotional entanglements in museums

Ever since the Renaissance, museums and their collections have been eliciting emotions in the context of ‘affective encounters’ (Varutti 2021): encounters where affect is elicited at the intersection (and as a result) of the power of museum objects, the museum itself (through its exhibitionary apparatus and curatorial intervention) and the subjectivity of the perceiver (for a cultural-historical discussion of these processes see Smith 2014). We know that the objects that end up in a museum collection are special, they encapsulate fascinating stories and have been witnesses of extraordinary persons and events; it is not surprising that we talk of ‘charismatic’ (Wingfield 2010), ‘powerful’ museum objects (e.g., Dudley 2012; Edwards et al. 2006). The affective potential of objects is amplified by the museum *mise-en-scène*, that is, by curatorial contextualization, a calibrated synergy of exhibition narratives, sensory stimulation and scenography, which all

contribute to create a certain atmosphere, ‘the in-betweenness of objects and subjects’ (Bjerregaard 2015, 74). Exhibition features such as texts, images, lighting, architecture, layout and juxtapositions can significantly amplify the emotional resonance of objects by creating affective atmospheres (Bjerregaard 2015; Dorrian 2014; Varutti 2022). For instance museologist Andrea Witcomb (2013) shows how affective exhibition approaches can be efficaciously deployed in historical collections in order to promote new forms of historical awareness and more critical engagements with the past. This is achieved through ‘affective curatorship’ (Varutti 2022), including affective strategies of interpretation, that is, strategies of display activating and inviting ‘sensorial, embodied forms of knowledge that express themselves through feelings in response to the material, aesthetic, and spatial qualities of the exhibition/interpretation’ (Witcomb 2013, 256).

Through what is displayed (and how) museums can influence visitors, their thoughts, emotions and sometimes, actions. Indeed, emotions are so central to museum’s engagement with the public that the phrase ‘pedagogy of feeling’ (Witcomb 2015) has been proposed to precisely capture the pivotal role that emotions play in learning processes. As a result, in museums, notions of citizenship, modernity, ethics (among others) are being substantiated and disseminated as part and parcel of the production of both individuality and sociality. Museums, and heritage at large, are then venues where our sense of individual and collective identity, our relationships with the past and aspirations for the future, are being not only narrated, materialized, and envisioned, but also experienced through the senses and embodied engagements, and therefore *felt* as a wave of emotional resonance (Tolia-Kelly, Waterton and Watson, 2017).

Given their power, museums have been associated with ideas of magic: ‘this magic consists of both the relatively calculated enchantment of museums – the architectural and aesthetic exhibitionary strategies used to attract the visitor – and also the magical excess provided by objects’ (MacDonald 2005, 212–213). Yet importantly, museums offer a reassuring, non-threatening kind of magic as they are largely perceived as authoritative, reliable, trusted institutions⁴ and therefore by extension, safe places for emoting. This is particularly relevant to awe, often accompanied by fear or even dread, yet this appears not to be the case when awe is experienced in museum settings (Price et al. 2021, 159).

Since Renaissance cabinets of curiosity or *Wunderkammer*, curiosity, wonder⁵ and awe have been central to the experience of collections. What elicited these emotions were exotic, never-seen-before artefacts and natural specimen brought to Europe by seafarers, traders and missionaries scouring the far reaches of European empires (Arnold 2016; Evans and Marr 2006). Awe and wonder were at the same time the triggers for the collection of spectacular objects and the desired responses to them once displayed in the *Wunderkammer*, a dedicated room with purpose-built cabinets. The *Wunderkammer* might include wooden cupboards with close and open shelves, drawers of different sizes, secret compartments, built-in devices sometimes disguised by *tromp-l’oeil* paintings ... what was on display, accessible to the view, was as important as what was hidden. As historian and critic Stephen Greenblatt (2004) noted, part of the fascination of the cabinets lied in the mystery of what was *not* visually accessible but lied hidden in the many compartments and drawers. These cabinets had curiosity built into their very physical structure, they were designed to entice visitors’ curiosity, invite inquisitive, exploratory engagements and build up the anticipation and awe of the discovery.⁶ The shared

experience of awe (one can imagine, hardly contained by the visitor and complacently observed by the collector) contributed to cement social relations and social hierarchy: what was on display – and what was meant to cause awe – were not only the objects *per se*, but also the might, the power, the cultivation and the social status of the collector. In other words, ownership of the wondrous object was in itself a cause of awe. It is only later, from the late seventeenth century, with the emergence of public museums that we assist to what Stephen Greenblatt (2004, 552) has called ‘the transformation of the experience of wonder from the spectacle of proprietorship to the mystique of the object’. Experiences of awe in museums today continue to carry a potential for bonding visitors in ‘communities of awe’ (Feuchtwang 2011, 74). As such, these shared emotional experiences perform a social function: they help individuals to make sense of, adapt, and respond to contemporary challenges whilst strengthening societal bonds (Bai et al. 2017). In the current context of multiple global crises, these opportunities are more than ever valuable.

Making the curatorial intervention visible

As mentioned, psychology studies and theories of emotions often refer to instances of awe in museums but do so with a narrow focus on the exhibit (often an art masterpiece) and the subject-object relation, with the result of neglecting the context of the exhibition, reduced to a mere backdrop. In part, this is the consequence of the fact that psychology studies of awe are largely based on interviews and surveys⁷ in which visitors *themselves* identify the sources of their emotional experiences in the properties of artworks (referring for instance to the artwork’s scale, realism, or attention to detail), giving much less consideration to their contextualization (for instance panels, labels, scenography and the atmosphere of the exhibition room, in this sense also Luke 2021, 53–54).

This is not surprising. From visitors’ point of view, curatorial contextualization *is supposed* to be invisible, it is an aim of curatorial intervention to make itself discreet in order not to interfere with the aesthetic experience (Bal 2006) – this approach is most evident in the ‘white cube’ exhibition paradigm. In addition, contemporary museum visitors have largely internalized and naturalized curatorial conventions (such as the use of neutral or harmonious background colour schemes, or labels with essential artistic details) which are simply expected to be at play, and therefore fail to pierce visitors’ attention. The implication is that the reliance of psychology studies on visitors’ accounts contributes to short-cut awareness of the curatorial. Yet clearly, curatorial intervention is present.

In curatorial practice museum professionals extensively leverage their power to elicit specific emotions (such as awe or empathy, see Gokcigdem 2019), yet often we overlook the curatorial apparatus deployed to this aim. For instance, Sara Perry (2019, 358) writes about a series of tools used in cultural heritage settings to promote emotional engagement:

frameworks for practice (including design, development, and evaluation) [which] range from the more conceptual (e.g., Witcomb’s [2015] ‘pedagogy of feeling’, Smith’s [2014] ‘registers of engagement’) to specific, actionable triggers of affect, such as engaging people in acts of reciprocity, imitation, replication via verbalization, roleplaying, personalization of experience, legitimate decision-making, humour, challenge, thinking through body-related themes, active listening, agonistic debate, and dialogue.

This list largely focuses on modes of interaction with visitors. Without question, these are relevant to understanding the dynamics of visitors' emotional engagement. However, this neglects what *precedes* engagement with visitors: the agency of the expository agent in the conceptualization and staging of the display. This calls for the analysis of the very act of showing, and the corollary scenographic and intellectual devices that frame the encounter with the exhibits, and henceforth their reception and interpretation.

Paths to awe in museums

As mentioned, experiences of awe are defined by a sense of vastness combined with an incapacity to fully grasp the source of awe; these states engender a particular kind of attention where alertness is both heightened and suffused. That curatorial intervention can affect attention is a truism: capturing, directing, and sustaining visitors' attention are the very rationales of curatorship and exhibition design. Here I want to argue more specifically for the power of curatorial intervention to act on the determinants of awe: feelings of vastness, need for accommodation, and related states of attention.

A connection between curatorial intervention and the determinants of awe, to my knowledge, has not been explicitly drawn before. Museology and curatorial studies offer a range of theoretical concepts that help us grasp how exhibitions may act on vastness, accommodation, and attention. I am going to substantiate this argument through three museological concepts and related exhibition approaches: resonance and wonder (Greenblatt, 2004), and curatorial interference (Bal 2006). Specifically, I draw on the concepts of resonance and wonder to illustrate how curatorial approaches can prioritize alternatively visitors' need for accommodation or feelings of vastness, and I will then use the concept of interference to show how curatorial decision-making can affect visitors' attention.⁸ The aim is not to identify display approaches conducive to awe; these remain highly subjective experiences that can be encouraged but hardly controlled. The aim is rather to show the range of action, the forms, and the ethos that curatorial intervention can take in order to facilitate (or otherwise influence) experiences of awe. Through this, my ultimate goal is to support my argument for the need to bring the curatorial into sharper focus in studies of awe in museums.

Resonance display approaches and the need for accommodation

Resonance display approaches are characterized by a focus on contextualization. For instance, the display may provide information about the social and cultural history of an exhibit, its social and cultural meanings, contexts of creation and use, and the social relationships that developed around it. Contextualization is provided by the synergy of texts, images, scenography, digital platforms, the very selection and juxtaposition of exhibits and the overall atmosphere created by exhibition design and architecture. Contextualizing display approaches emphasize what Stephen Greenblatt has called resonance, that is

the power of the displayed object to reach out beyond its formal boundaries to a larger world, to evoke in the viewer the complex, dynamic forces from which it has emerged and for which it may be taken by a viewer to stand. (2004, 546)

The information provided by resonance display approaches responds to visitors' need for accommodation, the need to make sense of what is on display by integrating it into their existing frames of knowledge.

I have previously written about my encounter with a special museum object, a bronze cat from Ancient Egypt in the collections of the British Museum, where the artefact was the focus of a small exhibition in 2007–2008 (Varutti 2021).⁹ I was deeply affected by the encounter with this artefact in ways that qualify as awe. Strong feelings initially arose from the sight of the artefact and the appreciation of its formal properties (design, form, proportions) and were sustained and enhanced when I learnt more about it, that is, when I could engage my need for accommodation. The bronze cat was displayed in a single glass case in the middle of a small exhibition room entirely devoted to this exhibit. All around it, along the walls, large glass cases provided contextualizing material: panels elucidated the religious significance of cats in Ancient Egypt and explained the advanced bronze casting techniques and skills deployed in the making of this artefact; scientific analyses and X-ray fluorescence revealed colour pigments, material composition and internal structure. Whilst the contextualization did not fully satisfy my need for accommodation – even after taking in all the information provided in the exhibition, I still could not grasp such perfection of forms – the information increased and qualified my admiration for the artefact and its maker(s). In other words, the contextualization (denoting a resonance display approach) addressed my need to understand the artefact (acute since I have no expertise in Ancient Egypt archaeological material), yet also *enhanced* my feelings of awe as I found myself going back and forth between observing the artefact and absorbing information about it, letting my gaze gradually become more focused, as my vision became 'enslaved' (Gowlland 2009; Grasseni 2007) thanks to the insights gained through the contextualizing display material. The display *enabled* this back and forth of attention: the conditions were in place for me to experience initial awe (to be surprised and become absorbed into the presence of this charismatic artefact), for me to learn more and make sense of its charm on me, and for my gaze to *transform*. It was not just a matter of shifting from one perspective to another (aesthetic, technical or historically contextualized; cognitive or affective) but rather of letting each perspective *build* on the other: letting contextualization amplify my initial awe and being urged by my awe to read and learn more in order to grasp the wondrous artefact. Curatorial intervention in this case only partially answered my need for accommodation: the artefact continued to transcend my understanding, its affective power being ultimately (un)explained by invoking a kind of magic at play (following Alfred Gell), which only contributed to amplify my awe response.

Invoking a sense of vastness through wonder display approaches

As a complement to engaging visitors' need for accommodation, curatorial intervention can encourage contemplative states that may engender a sense of vastness. This is facilitated by what Stephen Greenblatt has called wonder-inspired exhibition approaches, that is, approaches centred on 'the power of the displayed object to stop the viewer in his or her tracks, to convey an arresting sense of uniqueness, to evoke an exalted attention' (Greenblatt 2004, 546). Wonder display approaches emphasize the charismatic aura of objects by singularizing them, for instance exhibiting them in an individual glass case

or exhibition room, using strong, precise lighting to sublimate their formal properties. Wonder exhibition approaches create rarefied atmospheres conducive to contemplation and aesthetic admiration, as exhibits seem to ‘emerge’ from seamless backgrounds, made quiet and unobtrusive by thick carpets and neutral or dark walls. Wonder displays emphasize the technical virtuoso and artistic genius of the artist or artisan maker. The display becomes a tool in Alfred Gell’s theory on the technology of enchantment: visitors are moved by the technical skill and artistic virtuosity of the artist to such an extent that they cannot but feel surpassed by the artist. The sense of artistic and technical inferiority that stems from such awareness generates feelings of admiration and fascination. The display (and not only the artwork, as Gell originally postulated) becomes a ‘trap’ in which visitors ‘fall’ (Gowlland 2021) as they cannot fully grasp the agency of the maker (here amplified by the agency of the curatorial) which largely transcends their own abilities (Gell 1998, 71). Wonder display techniques combine with exhibition design to create specific atmospheres, that is, environments that carry ‘a spatially extended quality of feeling’ (Bielh-Missal and Lehn 2015, 238). These feelings may be echoed and further amplified by other exhibition elements such as exhibition texts, images, digital tools and architecture. The interwoven effects of these exhibition elements and their potential to elicit emotional responses in visitors exemplify what I have called affective museology, that is, museological approaches that specifically aim to emotionally affect visitors (Varutti 2020, 2022). Exhibition approaches focused on wonder are not confined to the display of specific object categories such as artworks. Ethnographic, historical or scientific items may also be exhibited in ways that recall Greenblatt’s ‘wonder’ codes, as can be observed for instance in the permanent exhibition of ethnographic collections at the Musée Jacques Chirac, Paris (former Quai Branly; see Price 2007) or in the arresting display of zoological specimen and wet collections at the Museum für Naturkunde Berlin (see Wade 2022). Nonetheless, wonder exhibition approaches are most evidently at play in museum displays of masterpieces and iconic artefacts; I single out one of these for the analytical purposes of this discussion.

Let us consider the bust of Queen Nefertiti at the Neues Museum in Berlin. This extraordinary artefact is exhibited alone in the impressive North Dome Room (or ‘Nefertiti Dome’) a round room with high, decorated and frescoed walls and ceiling that remind the architecture of the Ancient Roman Pantheon. The Nefertiti Dome is located at the end of an array of stately exhibition rooms; this location allows for a suggestive play of perspectives: the bust can be seen from afar, framed by multiple decorated stone arches and doorframes. This long perspective builds anticipation and a sense of reverence, as the bust appears to preside over the line of galleries, overlooking the stream of visitors. The round opening in the dome ceiling bathes the room in natural light; the interior is painted in jewel tones that match the pigments on the bust: deep blue, forest green, burnt red and ochre. Nefertiti’s bust is encased in a large glass case, erected on a stand that positions it just above eye level. The angular black contours of the imposing glass case fit squarely with the geometric patterns on the floor and draw visitors’ attention towards the central glass column.

Whilst there are bookshelves of volumes devoted to Nefertiti’s bust (aptly so, for an object carrying an history that stretches from Ancient Egypt to contemporary Germany) as well as a sea of websites offering information, imagery, virtual tours and 3D models of the bust,¹⁰ the contextualization offered *in situ* is minimal. The only other objects in

the room are two panels with essential information in German and English, mounted on semi-transparent supports that almost fade into the background, and a bust replica that can be freely touched. Both panels and replica are discreetly positioned on a side, close to the wall. If visiting at a quiet time, the guard is probably the only other conspicuous presence in the room, no further elements will distract visitors' attention from the iconic artefact. The power of this object, journeying across centuries and continents, is palpable. The sculpture's chiselled cheeks, the perfect arch of the eyebrows, the flawless completion ... how were the pigments chosen and mixed to obtain such a perfect skin tone? How did the artist model such ideal proportions? How could limestone and stucco be shaped to exude such grace? We may frantically look for explanations, yet standing in front of it, we can only let ourselves *be* in the presence of something that surpasses our understanding and imagination. Granted, not all visitors might respond in this way; some visitors might just give the bust a glance, take a snapshot and walk on. The salient point here is the effort that has been put in the curatorial contextualization of the museum object in order to amplify its affective reach. The bust of Nefertiti is a masterpiece no doubt, but her charismatic effect owes much to its immediate surroundings: an architectural structure and a curatorial framing carefully designed to magnify emotional impact.

I have juxtaposed two archaeological artefacts, the Egyptian bronze cat and the bust of Nefertiti, to illustrate respectively resonance and wonder display approaches. For the bronze cat, the contextualization was comprehensive, acknowledging and addressing (at least partially) visitors' need of accommodation; conversely, contextualization was minimal and focused on engendering awe in the case of the Nefertiti bust. The reverse might have been possible: Nefertiti's bust might have been richly conceptualized, and a minimal, awe-inducing layout might have been chosen for the Egyptian bronze cat. An object's *potential* to engender awe can be heightened or compressed through curatorial strategies. This is also true for the quality and levels of attention of visitors. I turn to this point in the next section.

Awe, attention, and curatorial interferences

As mentioned, enhanced attention is considered a key determinant of awe experiences. In this section I wish to cast light on the potential of curatorial interventions to act upon visitors' attention. To this end, I frame the discussion within an exhibition experiment performed by cultural theorist Mieke Bal. Curatorial intervention may be downplayed, but cannot be done away with; this is the dilemma that Bal (2006) seized at the heart of the display of art objects: it is impossible to provide a 'purely' aesthetic, un-mediated, out-of-context encounter with the displayed object, and therefore it is impossible to completely erase or hide curatorial mediation. In the face of this, Bal's proposition is to move away from attempts to hide what she calls the 'expository agency' (the curatorial responsibility and accountability for the display) in order to actively engage with the 'interferences' created by curatorial intervention, enlisting them as working tools, even emphasizing them, as doing so – crucially for our discussion on experiences of awe – heightens visitor's attention.

In an exhibition experiment at the Museum Boijmans Van Beuningen in Rotterdam, Bal (2006) set up to make curatorial decision-making explicit and disrupt a series of unspoken, naturalized rules that underlie exhibition practice, such as an overarching theme that

gives unity to the exhibition, a coherent juxtaposition of objects and texts, equally spaced paintings along the walls and harmony between colours in the paintings and backgrounds. For instance, in Bal's exhibition labels were used inconsistently: some exhibits (such as household goods) were accompanied by extensive interpretative texts, whilst others (paintings and prints) had none. This inconsistency aimed to unsettle visitors' 'comfort'; in Bal's own words, she (2006, 535) 'sought to denaturalize the institution of label itself so that those that were there would be read'. Similarly, a painting with red colours was mounted on a crimson screen; the juxtaposition of two clashing tonalities of red created a visual dissonance – a misalignment of sensory perceptions – aimed to enhance visitors' attention by creating an aesthetic friction. In the same vein, Bal juxtaposed a seventeenth century Dutch painting (the cornerstone of the exhibition) with everyday household goods carrying depictions linked to the scene of the painting. This mix of high-culture and mundane artefacts was meant to create intellectual inconsistency through the disruption of conventional museum taxonomies. Bal's experimentation shows that by 'interfering' to de-aestheticize artworks and subvert exhibition rules, curatorial intervention can act upon visitor's attention (a determinant of awe) and bring visitors to see the exhibition with fresh eyes: as Bal puts it (Bal 2006, 535) 'all these rules conspire to neutralize, indeed naturalize, exhibitions. And comfort counters the act of looking'. This kind of curatorial intervention enforces a change of pace in the viewing and leverages on sensory dissonance in order to enhance visitors' attention and need for accommodation: visitors are made to feel unsettled enough to pay closer attention to the display. As Bal (2006, 537) noted: 'there are no limits in the integrated domain of cognition and affect to what an exhibition can suggest to its publics'. Her experiment is recalled here as an illustration of precisely how the curatorial can 'interfere' with cognitive and affective responses. Granted, enhanced attention *per se* unlikely leads to experiences of awe in museums. Nonetheless, by causing visitors to look carefully and look differently, curatorial intervention can create wholly new perspectives, it can disclose and magnify the awe-inspiring potential of exhibits. Similarly, by slowing down the pace of the visit, it can open up a mental and affective space in which emotions can emerge, expand, unfold and be fully experienced.

Closing remarks

I have argued that in an exhibition, the curatorial intervention, the objects on display, the exhibition space, and the visitor, come together and interact in the creation of subjective affective experiences. Emotions arise from encounters at the intersection of these different exhibition elements and agencies. When looked at micro-scale, these encounters are actually dialogues, they involve a back-and-forth between the subject, the source of awe, and the surrounding environment informed by curatorial intention.

I have aimed to substantiate my argument that curatorial intervention plays a crucial role in the elicitation of awe in museums by showing how much leverage it has on the key determinants of awe: the sense of vastness, the need for accommodation, and a particular kind of diffused attention. I hope this article and its core argument act as invitations and springboards for future research of awe in museums (or for that matter other emotions) through the prism of curatorial work, bringing into analytical focus its role and place in the ability of some exhibitions to elicit powerful emotional responses. Specifically, more

research is needed to examine more closely the connections between curatorial actions and each determinant of awe and produce evidence of how these processes interact with each other to shape awe experiences in museums.

This is a worthwhile effort, as with an enhanced awareness of the dynamics of awe, museums can become even more exciting empirical sites for the study of awe and the multiple agencies that contribute to engender this emotion in visitors. And conversely, for museum studies, understanding better awe brings about a better understanding of the interrelations between collections, museum environments and curatorial intervention – how they mutually constitute and enhance each other. This may help us understand why exactly museums continue to be places where we experience awe to begin with, and how museums might capitalize on this in order to provide even more emotional support to their public in increasingly challenging times.

Notes

1. I understand ‘the curatorial’ as a work of creative assemblage, echoing Hans Ulrich Obrist’s proposition that ‘the task of curating is to make junctions, to allow different elements to touch’ (2014, 1). Choosing to use this term is also a way to emphasize the potential rewards of self-reflexivity in curatorial work (in line with Tinus and Macdonald 2020, 36).
2. Earlier still, the connection between feelings of expansion of the mind and artworks was discussed by 18th century Irish philosopher Edmund Burke in his essay on the sublime (Burke [1757] 1990).
3. Any terminological discussion of awe needs to be prefaced by a note on the limitations of placing the analysis within a given linguistic context. What in the English language is termed ‘awe’ will be variously translated in other languages, accruing in the process different nuances of meaning. Definitions of this concept cannot therefore claim universality; most of the literature and reflections developed in this article stem from the Anglophone context and are therefore to be received with awareness of the inherent linguistic limitation and cultural relativism.
4. See <https://www.aam-us.org/2021/09/30/museums-and-trust-2021/> accessed September 2023.
5. Awe and wonder are not synonymous (psychology studies reveal the subtle differences between the two emotions, see Weger and Wagemann 2021). In this article however, for a sake of simplicity I use them interchangeably as they are both relevant to the arguments put forward.
6. Whilst the literature on cabinets of curiosity as a cultural historical phenomenon is extensive, there has been relatively less research focusing on the physical structures of cabinets of curiosity and their impact on viewing and signifying practices, as well as emotions. Useful discussions of these aspects can be found in Weston (2009) and Bowry (2015).
7. For an overview of qualitative research methods used to investigate feelings of awe among museum visitors see Luke (2021).
8. These three curatorial approaches are proposed as paradigms here, they are an oversimplification for the sake of the argument. Most exhibitions entail various combinations of these and other approaches.
9. *Divine Cat: Speaking to the Gods in Ancient Egypt*, exhibition at the British Museum, November 2007 – January 2008. Details on the Gayer-Anderson cat: <https://www.britishmuseum.org/collection/animals/gayer-anderson-cat>
10. See for instance https://artsandculture.google.com/story/_AWhSnxV4cRAIw and <https://www.smb.museum/en/museums-institutions/aegyptisches-museum-und-papyrussammlung/collection-research/bust-of-nefertiti/>, both accessed September 2023.

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References

- Anderson, C. L., M. Monroy, and D. Keltner. 2018. "Awe in Nature Heals: Evidence from Military Veterans, at-Risk Youth, and College Students." *Emotion* 18: 1195–1202.
- Arnold, K. 2016. *Cabinets for the Curious: Looking Back at Early English Museums*. London: Routledge.
- Bai, Y., L. A. Maruskin, S. Chen, A. M. Gordon, J. E. Stellar, G. D. McNeil, K. Peng, and D. Keltner. 2017. "Awe, the Diminished Self, and Collective Engagement: Universals and Cultural Variations in the Small Self." *Journal of Personality and Social Psychology* 113 (2): 185.
- Baker, J. 2015. "Anarchical Artifacts: Museums as Sites for Radical Otherness." In *International Handbooks of Museum Studies*, edited by S. MacDonald and H. R. Leahy, 63–77. Oxford: Blackwell.
- Bal, M. 2006. "Exposing the Public." In *A Companion to Museum Studies*, edited by S. Macdonald, 525–542. Oxford: Blackwell.
- Behar, R. 1996. *The Vulnerable Observer: Anthropology That Breaks Your Heart*. Boston: Beacon Press.
- Bencard, A. 2014. "Presence in the Museum. On Metonymies, Discontinuity and History Without Stories." *Museum and Society* 12 (1): 29–43.
- Bennett, J. 2001. *The Enchantment of Modern Life*. Princeton: Princeton University Press. <https://press.princeton.edu/books/paperback/9780691088136/the-enchantment-of-modern-life>.
- Biehl-Missal, B., and D. Lehn. 2015. "Aesthetics and Atmosphere in Museums: A Critical Marketing Perspective." In *International Handbook of Museum Studies*, edited by S. MacDonald and H. R. Leahy, 235–258. Oxford: Blackwell.
- Bjerregaard, Peter. 2015. "Dissolving Objects: Museums, Atmosphere and the Creation of Presence." *Emotion, Space and Society* 15: 74–81.
- Bowry, S. J. 2015. "Re-Thinking the Curiosity Cabinet: A Study of Visual Representation in Early and Post Modernity." PhD Thesis, University of Leicester. https://leicester.figshare.com/articles/thesis/Re-thinking_the_Curiosity_Cabinet_A_Study_of_Visual_Representation_in_Early_and_Post_Modernity/10127255/1. Accessed September 2023.
- Burke, E. [1757] 1990. *A Philosophical Inquiry Into the Origin of our Ideas of the Sublime and Beautiful*. Oxford: Oxford University Press.

- Butz, D., and K. Besio. 2009. "Autoethnography." *Geography Compass* 3 (5): 1660–1674.
- Chirico, A., and A. Gaggioli. 2018. "Awe: 'More Than a Feeling'." *The Humanistic Psychologist* 46 (3): 274–280.
- De Bolla, P. 2012. "The State of Wonder." In *Museum Objects: Experiencing the Properties of Things*, edited by S. Dudley, 158–160. London: Routledge.
- Dorrian, M. 2014. "Museum Atmospheres: Notes on Aura, Distance and Affect." *The Journal of Architecture* 19 (2): 187–201.
- Dudley, S. 2012. *Museum Objects: Experiencing the Properties of Things*. London: Routledge.
- Edwards, E., C. Gosden, and R. Phillips, eds. 2006. *Sensible Objects: Colonialism, Museums and Material Culture*. Oxford: Berg Publishers.
- Elkins, J. 2005. *Pictures and Tears: A History of People who Have Cried in Front of Paintings*. London: Routledge.
- Ellis, C., and A. P. Bochner. 2000. "Autoethnography, Personal Narrative, Reflexivity: Researcher as Subject." In *Handbook of Qualitative Research*, edited by N. K. Denzin and Y. S. Lincoln, 733–768. Thousand Oaks: Sage Publications.
- Evans, R., J. Weston, and A. Marr, eds. 2006. *Curiosity and Wonder from the Renaissance to the Enlightenment*. Farnham: Ashgate.
- Feuchtwang, S. 2011. "Exhibition and awe: Regimes of Visibility in the Presentation of an Emperor." *Journal of Material Culture* 16 (1): 64–79.
- Freeman, D. 2014. *Art's Emotions: Ethics, Expression and Aesthetic Experience*. London: Routledge.
- Gallgher, S., L. Reinerman-Jones, B. Janz, P. Bockelman, and J. Trempler. 2015. *A Neurophenomenology of awe and Wonder. Towards a non-Reductionist Cognitive Science*. London: Palgrave MacMillan.
- Gell, A. 1992. "The Technology of Enchantment and the Enchantment of Technology." In *Anthropology, Art, Aesthetics*, edited by J. Coote and A. Shelton, 40–63. Oxford: Clarendon Press.
- Gell, A. 1998. *Art and Agency: An Anthropological Theory*. Oxford: Clarendon Press.
- Gokcigdem, E. 2019. *Designing for Empathy: Perspectives on the Museum Experience*. Lanham: American Alliance Of Museums.
- Gowlland, G. 2009. "Learning to See Value: Exchange and the Politics of Vision in a Chinese Craft." *Ethnos* 74 (2): 229–250.
- Gowlland, G. 2021. "Trapped. Museum Experiments with Relationality, Empathetic Imagination and Perspective." *Journal of Nordic Museology* 2–3: 20–33.
- Grasseni, C. 2007. *Skilled Visions: Between Apprenticeship and Standards*. Oxford: Berghahn Books.
- Greenblatt, S. 2004. "Resonance and Wonder." In *Museum Studies. An Anthology of Contexts*, edited by B. Messias Carbonell, 541–555. Oxford: Blackwell.
- Keltner, D. 2023. *Awe: The New Science of Everyday Wonder and How It Can Transform Your Life*. New York: Penguin Press.
- Keltner, D., and J. Haidt. 2003. "Approaching awe, a Moral, Spiritual, and Aesthetic Emotion." *Cognition and Emotion* 17 (2): 297–314.
- Levine, B. M. 2021. *Curatorial Intervention: History and Current Practices*. Lanham: Rowman & Littlefield.
- Luke, J. 2021. "'The Bloody Hell and Holy Cow Moment': Feeling Awe in the Art Museum." *Curator: The Museum Journal* 64 (1): 41–55.
- Macdonald, S. 2005. "Enchantment and its Dilemmas: The Museum as a Ritual Site." In *Science, Magic and Religion: The Ritual Processes of Museum Magic*, edited by M. Bouquet and N. Porto, 209–228. Oxford: Berghahn.
- Massumi, B. 1987. "Notes on the Translation and Acknowledgments." In *A Thousand Plateaus: Capitalism and Schizophrenia*, edited by Gilles Deleuze and Felix Guattari, xvi–xix. Minneapolis: University of Minnesota Press.
- Obrist, H. U. 2014. *Ways of Curating*. St. Ives: Allen Lane.
- Perry, S. 2019. "The Enchantment of the Archaeological Record." *European Journal of Archaeology* 22 (3): 354–371.
- Platin, C. 2015. "Emotion and Affect." In *The International Encyclopedia of Language and Social Interaction*, edited by Karen Tracy, Cornelia Ilie, and Todd Sandel, 1–11. Oxford: Blackwell.

- Price, S. 2007. *Paris Primitive: Jacques Chirac's Museum on the Quai Branly*. Chicago: University of Chicago Press.
- Price, C. A., J. N. Greenslit, L. Applebaum, N. Harris, G. Segovia, K. A. Quinn, and S. Krogh-Jespersen. 2021. "Awe and Memories of Learning in Science and Art Museums." *Visitor Studies* 24 (2): 137–165.
- Reinerman-Jones, L., B. Sollins, S. Gallagher, and B. Janz. 2013. "Neurophenomenology: An Integrated Approach to Exploring awe and Wonder." *South African Journal of Philosophy* 32 (4): 295–309.
- Rodriguez, R. M., A. Fekete, P. J. Silvia, and K. N. Cotter. 2021. "The Art of Feeling Different: Exploring the Diversity of Emotions Experienced During an Art Museum Visit." *Psychology of Aesthetics, Creativity, and the Arts*. Advance online publication. <https://doi.org/10.1037/aca0000443>. Accessed September, 2023.
- Schneider, K. 2017. "The Resurgence of Awe in Psychology: Promise, Hope, and Perils." *The Humanistic Psychologist* 45 (2): 103–108.
- Schneider, K. 2019. "Awe: More Than a lab Experience—A Rejoinder to 'awe: More Than a Feeling' by A. C. and A. Gaggioli." *The Humanistic Psychologist* 48 (1): 100.
- Shiota, M. N. 2021. "Awe, Wonder, and the Human Mind." *Annals of the New York Academy of Sciences* 1501 (1): 85–89. <https://doi.org/10.1111/nyas.14588>.
- Smith, J. K. 2014. *The Museum Effect: How Museums, Libraries, and Cultural Institutions Educate and Civilize Society*. Lanham: Rowman and Littlefield Publishers.
- Tinio, P. L., J. K. Smith, and L. F. Smith. 2014. "The Walls Do Speak: Psychological Aesthetics and The Museum Experience." In *The Cambridge Handbook of the Psychology of Aesthetics and the Arts*, edited by J. K. Smith and P. L. Tinio, 195–218. Cambridge: Cambridge University Press.
- Tinius, J., and S. Macdonald. 2020. "The Recursivity of the Curatorial." In *The Anthropologist as Curator*, edited by R. Sansi, 35–58. London: Routledge.
- Tolia-Kelly, D. P., E. Waterton, and S. Watson. 2017. "Introduction. Heritage, Affect and Emotion." In *Heritage, Affect and Emotion: Politics, Practices and Infrastructures*, edited by D. P. Tolia-Kelly, E. Waterton, and S. Watson, 1–11. London: Routledge.
- Valdesolo, P., A. Shtulman, and A. S. Baron. 2017. "Science is awe-Some: The Emotional Antecedents of Science Learning." *Emotion Review* 9: 215–221.
- Varutti, M. 2020. "Vers une Muséologie des Émotions." *Cultures et Musées* 36: 171–177.
- Varutti, M. 2021. "Affective Encounters in Museums." In *Heritage Ecologies*, edited by Þ. Pétursdóttir and T. Rinke Bangstad, 129–144. London: Routledge.
- Varutti, M. 2022. "The Affective Turn in Museums and the Rise of Affective Curatorship." *Museum Management and Curatorship* 38 (1): 61–75.
- Wade, Sarah. 2022. "Ecologies of Display: Contemporary Art, Natural History Collections and Environmental Crisis." *Journal of Natural Science Collections* 10: 94–106.
- Weger, U., and J. Wagemann. 2021. "Towards a Conceptual Clarification of Awe and Wonder." *Current Psychology* 40 (3): 1386–1401.
- Weston, D. M. 2009. "Worlds in Miniature': Some Reflections on Scale and the Microcosmic Meaning of Cabinets of Curiosities." *Arq: Architectural Research Quarterly* 13 (1): 37–48.
- Wingfield, C. 2010. "Touching the Buddha: Encounters with a Charismatic Object." In *Museum Materialities: Objects, Engagements, Interpretations*, edited by S. Dudley, 53–70. London: Routledge.
- Winner, E. 2018. *How Art Works: A Psychological Exploration*. New York: Oxford University Press.
- Witcomb, A. 2013. "Understanding the Role of Affect in Producing a Critical Pedagogy for History Museums." *Museum Management and Curatorship* 28 (3): 255–271.
- Witcomb, A. 2015. "Toward a Pedagogy of Feeling: Understanding How Museums Create a Space for Cross-Cultural Encounters." In *International Handbooks of Museum Studies*, edited by S. MacDonald and H. R. Leahy, 321–344. Oxford: Blackwell.