### Roman Cyborgs! On Significant Otherness, Material Absence, and Virtual Presence in the Archaeology of Roman Religion

Eva Mol 0

Joukowsky Institute for Archaeology and the Ancient World, Brown University, Providence (RI), USA

In this article I explore different ways archaeologists can contribute to and learn from theorizing the digital world beyond the traditional functionalistic means of applying computational methods. I argue that current digital technologies can be a very constructive tool to create non-human experience and awareness. I pursue this argument by presenting ideas from a work-in-progress project experimenting with the post-human and the virtual, and by exploring significant otherness in Roman religion and the dark spots in human perception, through the analysis of an absent temple in Rome. Applying post-human philosophies and an expanded concept of virtuality beyond the digital makes it possible to change our approach to object/human/divine relations in Roman cults and how we present Roman heritage towards a post-humanist framework. Through this, digital archaeology can become one of the ways of re-examining and reinventing our ideas of the human, the past and the digital.

Keywords: post-humanism, virtuality, virtual archaeology, Roman religion, animism, heritage

### Introduction

The thrust of this article is a critical-philosophical as well as a more constructive take on a particular aspect of digital archaeology: virtual archaeology. Virtual archaeology, initially defined as the general use of computer-based simulations in archaeology, has now expanded to the creation and interpretation of digital representations of the past (Reilly, 1991: 13–39; Hookk, 2016: 647-50) but retains an emphasis on rendering digitally and visually realistic reconstructions. In this article, I want to expand the concept of the virtual beyond the digital and show how past non-computerized representations are virtual too: from Roman wall paintings, representations of

architecture on coinage, to someone's reflection in the mirror, states of virtuality have always been with us and affected our understanding of the past. I further hope to show how we can deal more constructively with the virtual in virtual reality (VR) applications in the future rather than merely 'represent the real' by making room for past ontologies and non-human temporalities and experience. I will pursue these aims by presenting ideas from a work-in-progress project experimenting with the post-human, the virtual, and objects and animism in the Roman religion of Isis.

The *absence* in the title refers to the material absence of the virtual. The *presence* refers to perception of the extent to which data, actual or virtual, produce an

experience of place and being present (IJsselsteijn et al., 2001: 179-82). The absence also more pragmatically refers to archaeology itself, and in this case to the absence of a temple in Rome: the Isis temple on the Campus Martius that serves as a case study in this article. The temple is absent, destroyed and overbuilt, but this does not exclude its presence. Next to some scarce material traces in the form of statues and obelisks, the Iseum has been virtually present for centuries in the form of Roman coinage, plans, and a variety of reconstruction drawings. These virtual presences are traces that show how these objects, as well as archaeology and history as disciplines, are constantly engaged in 'contemporary past-making through engaging with the non-absent present' (Domanska, 2005: 389-413). The Iseum, therefore, can be described as a past that is not absent or non-present, but non-absent (Domanska, 2005: 389–413; Shanks, 2012: 132-37). This points to the past as being virtual itself, and its virtualities representing the fragmentation of multiple pasts. Therefore, as I will explore the virtual, I also explore alternative Roman past-possibilities.

The digital world presents possibilities in this respect. Through its altered modes of being and post-embodied affordances it may be the conceptual gateway to a new understanding and post-human awareness. In cyberspace this is not a revolutionary concept (although it never became integrated); in their 1999 publication on virtual selves, Bolter and Grusin (1999: 245) stated that 'To occupy multiple points of view becomes a new positive good and perhaps the major freedom that our culture can now offer'. Moreover, the current widespread comfort of embracing humandigital co-dependencies can potentially create a platform of consideration for other types of co-dependencies too.

The proposed themes will be discussed in two parts. First, I relate the virtual to transhumanism and the post-human as 'significant otherness' (Haraway, 2003) and discuss the perception of the real and its effect on archaeology. This is followed by a case study on the Iseum Campense in Rome that will discuss the possibility of (1) an extended view of virtuality and (2) an example of post-human virtual experience. In discussing issues of the virtual and the post-human in the digital present and in the past, I will use the phenomenology of the absent, or dark phenomenology (Roden, 2015), Bergson and Deleuze's ideas on virtuality, and Haraway's concept of significant otherness to approach these issues in a more holistic manner.

## TOWARDS POST-HUMANISM WITH THE DIGITAL: EMBRACING THE DARK SIDE

## Transhumanism, post-humanism, and the virtual

Before moving on to the consequences of thinking about the past and the digital, I will start with a brief, more philosophical, argument on post-humanism beyond its archaeological use and discuss the difference between transhumanism and posthumanism. Transhumanists, believe that the human-cyborg will be a new and improved human species and predict a world in which digital, cybernetic, genetic, and biomedical technologies become the instruments of the next phase of human evolution whereby Homo sapiens will transform into *Homo cyberneticus* or Techno sapiens (Hayles, 1999, 2017; Kurzweil, 2005). Pragmatically, transhumanism is approached at the level of techno-eugenics, a territory whose aim is to liberate the human race from its

biological constraints and create a new transhuman ruling class (Riggio, 2015: 5–9).

Transhumanism, therefore, is a direct continuation and updated version of traditional humanism in the belief that humans are cognitively, evolutionarily, and morally distinct from other species. Hence, despite appearing similar, transhumanism and posthumanism could not be further apart in their essences. Post-humanism is conceived in numerous ways, but in all these it is directly opposed to the idea that humans are an exceptional species (Bostrom, 2008: 107-37; MacFarlane, 2014: 52-56). The most common currently held definition of what post-human is or how it should be encountered is the strand of 'critical posthumanism'. This refutes humanism and transhumanism and argues fiercely against a general anthropocentrism and the categories it has created. The ultimate aim is the disappearance of the boundaries between the human, the animal, and the machine and the abolition of human subjectivity and individuality (Hayles, 1999; Badmington, 2000, 2003; Braidotti, 2013; Nayar, 2014; Grusin, 2015). Posthumanism and transhumanism, alike in this respect, take a human perspective as their vantage point. For this reason, but also for the general problematic continuation of 'human' in post-human, Haraway suggested employing the term 'companion species' instead (Haraway, 2003, 2008). David Roden proposes a different form of post-humanism, which he calls speculative post-humanism, to overcome this. Speculative post-humanism embraces the 'weird' in the sense that it hopes, like critical post-humanism, to challenge the hold anthropocentrism has had on the way we think about possible manifestations of cognition. Yet, unlike traditional posthumanism, speculative post-humanism does not stop at criticism but seeks to imagine, to the extent in which this is possible, what non-anthropocentric forms of phenomenology, moral reasoning, and cognition may actually look like (Roden, 2015: 21). Although on an academic level Roden's philosophical argument is important, an anti-humanist perspective should not be dismissed. Until we have actual post-humans, a critical anti-humanistic and companion-species perspective is vital to create a more inclusive and diverse perspective on the past and the present. The reason for this is because the current framework we call 'human' is based on a Western, white, male framework in which many people do not feel a 100 per cent human (see Ahmed, 2006; Braidotti, 2013). Before moving to anything posthuman, therefore, the standard that humanism has shaped for being human needs to change first. We cannot fully move away from our anthropocentric perspectives, and this is also not desirable. It is not about losing our human framework; it is about expanding it and creating room for alternatives.

However, even following the futuristic transhumanists' own internal logic, cyborgs already exist. Self-proclaimed cyborg and activist Neil Harbisson, founder of the Cyborg Foundation, was born with a condition that made him able to see only in greyscale. In order to perceive colours, he took a creative and very bold step: through experimental surgery, an antenna was connected to his skull bone and this device enabled him to translate colours into sound-sensations, something his brain could perceive. Harbisson can now hear colour, including colours most humans cannot see, such as infrared and ultraviolet. This, and the fact that he perceives colours in every animate and inanimate sound (see Figure 1), completely changed his sense of human reality. With his cyborg foundation, Harbisson wants to encourage extending the senses further and stimulate the creation of new senses and perceptions by

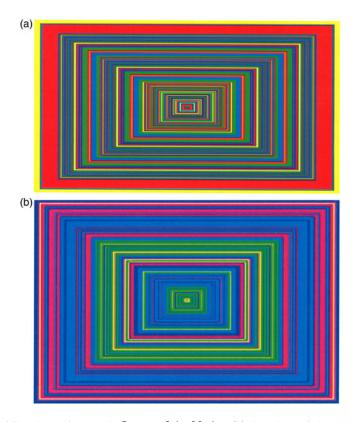


Figure 1. (a) The colour of Mozart's Queen of the Night; (b) the colour of Amy Winehouse's Rehab by Neil Harbisson. Reproduced by permission of Neil Harbisson.

applying technology to the human body (Harbisson, 2012). What fascinates me in this story is that Harbisson claims his technological mutation never gave him the idea that he is a 'better' human; on the contrary, it gave him an increased awareness of the non-human, beyond his own species.

Clearly, the philosophy of this cyborg stands in stark contrast to the many theoretical pro-cyborg transhumanists. Harbisson provides a great example of speculative posthumanism because, through his alternate state of being, he became aware that no species is better than another, and it was precisely the non-human way of perception he acquired that made him conclude this. This single example should not be taken to promulgate a cyborg utopia, as it is an isolated and much-idealized case, which does not take account of the risks of such

technical developments in a society dominated by a capitalist and neoliberal system. Through this example, I want to show that this post-human existence makes transhumanism quite obsolete as a philosophical perspective; it also illustrates where critical and speculative post-humanism meet. Whereas transhumanism is precarious and anthropocentric, Harbisson shows that feeling 'not 100 percent human' could also potentially provide fuel for an expanded view and renewed understanding of other species and counter the claim that humans are the most developed species on earth.

### A further glimpse in the dark

In contrast to Harbisson, I do not think that changing ourselves into cyborgs is a prerequisite to make us become more aware of the relative position we take amongst other species. We may already have started to become cyborgs some time ago. Clark and Haraway, amongst others, have noted that our current intimate connection between technology and our bodies make us all cyborgs; moreover, in a broader sense, the boundaries we have drawn between technology and biology have never been strictly defined in the first place (Haraway, 1991; Clark, 2003; see also Bogost, 2012). Instead of changing our bodies, an immersed virtual environment can provide a non-human perspective such as Harbisson describes too, especially through recent developments in virtual technology that are more sensorially embodied (Gallace et al., 2012; Jallouli & Moreau, 2012).

Immersion and experience lead to a further complication of applying posthuman otherness to virtual archaeology. In terms of philosophies of embodiment and perception, phenomenology is inherently anthropocentric and therefore limited as a theoretical framework unless we move beyond human phenomenology. This is what makes post-humanism challenging: the nature of thought itself must change if it is to be post-humanist (Wolfe, 2010: xvi). A step forward might be to pursue a phenomenology aimed at extending beyond the humanly accessible, transcending our subjective recognitional powers or, as Roden advocates, to engage in dark phenomenology (Roden, 2013: 168–88).

Dark phenomenology relates to those elements of human experience that we cannot access yet which affect and shape us. Returning to the Harbisson example, dark phenomenology would include humanly distinguishable colour perceptions numbering around ten million, humanly indistinguishable colour perceptions in sound, vision, and other (non-human) senses, and a subjective linguistic colour lexicon of

around 120 words (Delwin and Brown, 2014) as forms of reality. It allows nonhuman perceptions and makes it possible to appreciate different structures of temporal awareness that exist outside our bodily mediated framework (Roden, 2013: 175) such as those of trees, stones, fish, spirits, and monsters. By embracing dark phenomenology, we can move forward, creating a post-human or non-human idea of experience. We can attempt to dissolve boundarbetween human and non-human. between the inner and the outer world, but also between analogue and digital. This is not a common view or use of virtual worlds, and rather points to the potential the digital for deconstructing anthropocentric dichotomies and the sense of 'self'. Despite the hope of change formulated by Bolter and Grusin, current VR, dominated as it is by the commercial gaming industry, is still unnecessarily replicating Cartesian divisions between mind and body and maintaining white male colonial frameworks: as Grosz points out, this is one of the main challenges in developments in cyberspace (Grosz, 2001). This issue is the primary reason why I stress that VR has potential, but only when the virtual does not try to embody the (humanist) real.

### Post-human virtual archaeology

To sum up the discussion above and shift it to the field of archaeology, I think that post-human virtual approaches have a dual theoretical advantage for archaeology. The virtual plane is a venue with great potential for non-human perspectives that can broaden our conception of past human beings and of the spiritual, the human, and the material. In theory, therefore, we can analyse Roman cult practices and artefacts from a more immersive viewpoint of other ontologies: accepting dynamic hybrids of materials, animals, humans, and rituals

and, more importantly, dismissing the boundaries between the human and the divine that still exist in the study of Roman cults (Graham, 2002). However, I call this advantage for (Roman) archaeology theoretical on purpose, because at this point it is still difficult to envisage how we can formulate a critical post-human perspective. The concerns for the 'reality' aspect in virtual reality mirrors in many ways the concerns archaeologists have around thinking about the past. 'Real' implies a subjective and uniform existence of normality, whereas reality has many faces. The past, likewise, is as subjective, non-linear, and diffracted as reality and is, moreover, not singular as many pasts co-exist (Whitehead, 1978; Bloch, 1998: 100-13; Alberti & Brey, 2009). Perhaps even more importantly than 'reality', the past should be approached from a de-normalized point of view so we can better grasp its complexities. If we accept this critical position towards reality and accept the virtual as a tool to create awareness of this otherness, we embrace a post-humanism that also has the potential to challenge our ideas of the past, in the case of this article: of objects related to Roman cults. This further makes the real and virtual valuable concepts for archaeology, and it makes post-human VR a useful tool to explore conceptions of different pasts and non-Western, non-empirical experiences. In addition, post-human virtual constructions have the power to make the reconstructions of 3D models currently used in archaeology and heritage a more dynamic, analytical, and self-reflexive exercise. This brings us to the case study, for which the ultimate aim is now clear: the virtual archaeology for the Iseum Campense sanctuary project should create a transformative (dis)/embodied multisensory form of knowledge that will affect perspectives on the past by challenging current 'human(ist)' categories.

## THE ISIS SANCTUARY IN ROME: REAL VIRTUALITIES

The sanctuary of the Iseum Campense is only virtually present since no architectural remains are visible and excavations hardly gave any insight on its structure beside some minor and fragmentary information (Lanciani, 1883: 33-60; Gatti, 1943-44: 117–63; Ensoli, 1998: 407–38; Ten, 2017: 273-77). A first temple was built on the Campus Martius in the first century BC, then destroyed and probably rebuilt by the emperor Caligula. This second temple burnt down in the Great Fire of AD 80, and it was the lavish renovation undertaken under Domitian (AD 81–96) which made the temple into the largest sanctuary of the Egyptian deities Isis and Serapis in the Roman world. The complex was still used or at least known as a temple until the fifth century, when it probably fell out of use, gradually deteriorated or was demolished (Lembke, 1994). Today the structure has completely vanished from the urban texture; however, a couple of structural remains (columns) and sculptures (ranging from marble statues, Egyptian imports, to obelisks) still exist, some in the Capitoline museums, others scattered around the original location of the sanctuary and further afield in the city (Müskens, 2017).

In order to explore issues of the material and digital, and connected epistemological concepts of the real and virtual, reconstructions of this absent object were analysed in 2016–17 (Mol, 2018: 339–62). The study provided insights into representations and interpretations of the past, but it also informed us more generally on perception, imagination, on the creative process of representing objects and materials, and on their power to legitimate the real and influence the concept of Egypt in Rome.

All the known representations of the sanctuary were analysed in the respective

social, cultural, visual, and material lifeworlds in which they were conceived in order to answer how they relate to the 'real' and what their virtual qualities consisted of. The three renderings of the same sanctuary in the images illustrated in Figure 2 show how strikingly they differ from each other. The virtual Iseum displayed on a brass coin (sestertius) from the Vespasian period (Figure 2a) was contemporary with the real temple and shows how the Romans-either in the actual design or in the representation on the coin —linked the construction of this temple to Egyptian-Alexandrian design. This can be observed mainly in the Alexandrian hemispherical pedimented roof. It is markedly different from conventional Graeco-Roman sacred architecture and the choice of Alexandrian style seems to relate to Isis' origin and the contemporary idea of what Egyptian architecture looked like. The second image (Figure 2b) is a seventeenthcentury reconstruction drawn by the Jesuit scholar Athenasius Kircher. A close analysis of the image reveals that he never aimed to represent or include anything that was materially known about the temple (such as the sculptures Kircher knew were connected to the sanctuary), but rather represented a personal spiritual ideal of Egyptian religion in his reconstruction drawing (Mol, 2018: 347–50). Whereas the temple itself seems to have been based on contemporary images of architecture in Jerusalem present in Roman churches, the sculptures shown in the drawing relate to parallels found in Kircher's study of hieroglyphs and to what he thought would spiritually 'fit' in temple. The last reconstruction (Figure 2c) consists of a nineteenthcentury drawing made by Guiseppe Gatteschi, and shows a Pharaonic-Egyptian inspired design reflecting contemporary Italian-European ideas on Egypt generated through colonialism, travel, and early photography (see Mol, 2018 for a detailed discussion).

All renderings as imaginaries show that their makers were influenced by specifically contemporary Egyptian or non-Western concepts when they had to (re) create a temple for the Roman goddess Isis. The intricate process of imagination illustrates how the virtual also clearly related to a complex sense of real-world ontological experiences that formed an inspiration for the images.

In order to discuss the effects on the experience of reality, an extended idea of virtuality appeared to be vital for a better understanding of representation outside the humanistic framework, especially the way 'virtual' is conceived by Bergson (and Deleuze influenced by Bergson). Conceiving these objects as virtual moves them from an 'actual' representation referring to the past existence of the Iseum to traces that inform us on contemporary imaginations and lifeworlds. These virtualities are different from the material traces, as non-present forms or imaginations that have no material reality; they are not the same as representations of the past, but are an attribute of that reality (Deleuze, 2002: 148–52; Domanska, 2005: 389–413; Shanks, 2012: 134). The opposite of the virtual, therefore, is not what is real but that which is concrete (Pearson, 2002; Shield, 2002: 24). If we follow Bergson, an important characteristic is that the virtual is not opposed to the real: the virtual should be conceived as real in essence, but not in form (Deleuze, 1991, 1994: 208; Massumi, 2002; Berthier, 2004; Bergson, 2007: 233–98). The virtual is 'real without being actual, ideal without being abstract, and symbolic without being fictional' (Proust in Deleuze, 1994: 208). As mentioned, the essence without form applies to so many more virtual objects than 3D models: they range from letters in a book, memories, dreams, to someone's

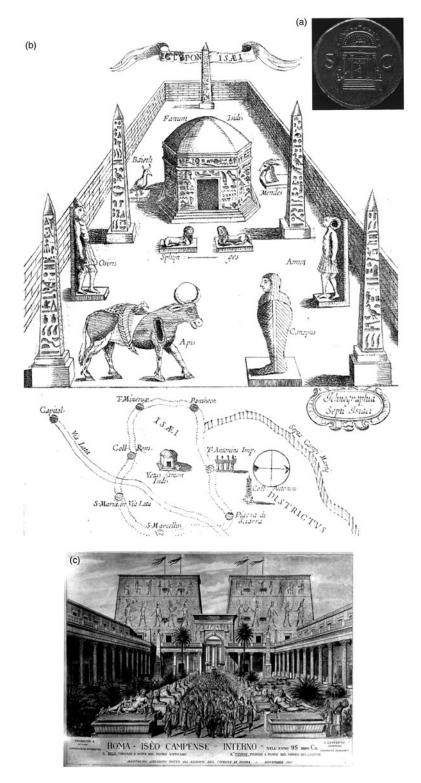


Figure 2 Virtual sanctuaries of the Iseum Campense in Rome. (a) a Roman coin; (b) a seventeenthcentury reconstruction by Athenasius Kircher; and (c) a late nineteenth-century reconstruction by Giuseppe Gatteschi (after Mol, 2018). Reproduced by permission of Quasar publications and editors (Versluys/Bulow-Clausen/Capriotti-Vitozzi). https://doi.org/10.1017/eaa.2019.42 Published online by Cambridge University Press

reflection in the mirror. The text we read in books, for instance, may be real in space; but, to the extent that it is comprehensible to us, it also exists in a state of virtuality.

One of the significant outcomes of this research on a broader level, therefore, is related to knowledge concerning the virtuality of our actual existence, and how we draw knowledge from virtual presence and absent objects which challenge empirical epistemologies. Empiricism has shaped a rigid division between the materialism of empirical reality and the idealism of abstract thought by simplifying the ontological in two categories: existing versus non-existing. In this, the virtual became conflated with the abstract and unreal, and models were made to match reality, relying on Euclidian measurements. The representation on the Roman coin and the drawing made by Kircher were never created with this intention, and their potential value as a representation to learn about the past has, therefore, not been fully seized. The analysis of these images teaches us that virtual objects cannot be purely immaterial. They have significant influence on perception; although the virtual is not actual, it is real and they are real objects because they cannot be disconnected from the assemblages of which they form part.

### ISIS IN ROME: VIRTUAL REALITIES

Therefore, if we combine the virtual real with thinking about virtuality, we can create a wider historical frame of analysis, and explore other pasts and temporalities. Before the modern age, the virtual (such as memories and dreams) was considered an important way of gaining knowledge and considered as accepted part of reality. Virtuality, therefore, is also about other ontologies (Shield, 2002: 37–8). Thus, conceiving virtuality in this way, on a post-

human level, adds much to our understanding of Roman cult practices, objects, and religion. Post-humanism as a perspective has great potential for the study of Roman religion in this respect because of its re-evaluation of the concept of subjectivity, viewing it as a transversal domain which includes the human, the non-human, the spiritual, and the world as a whole (Braidotti, 2013: 87). We should be even more radical by including Harvey's and Domanska's takes on new animism as a potential fruitful ontology and as a way of understanding human and nonhuman differently, since they can be equally 'alive' (Harvey, 2017: 481-97; Domanska, **2018**: 23).

While it might be useful in general to 'treat animism as a general theoretical "shifter" in the paradigm change' (Domanska, 2018: 31), I would argue that to get a better grip on some of the complexities in Roman religion such a view is even a prerequisite. We are aware that in Roman religion certain spiritual realities and truths were approached through the virtual, in rituals that offered a transformative, embodied, and sensory form of knowledge. The study of Roman religion in particular has suffered from a neoclassicist and Western empiricist view, often treating sanctuaries as museums and objects as mere artistic or decorative items. As argued by Elsner and Hunt, amongst others, the post-enlightenment tendency to rationalize Roman culture has had a restricting effect on the understanding of Roman religion and religious experience (Elsner, 2007; Hunt, 2016).

For instance, the hermeneutic umbrella of orthopraxy has largely ignored animism as a continuing ontological aspect of Roman religion. Animism is often regarded mainly in an evolutionary perspective as an earlier, less developed stage leading to a more sophisticated (Greek) anthropomorphic worship. However, some stones remained alive in the Roman past. Statues in cult settings throughout Roman

history were sometimes conceived as animated and spirited beings instead of mere objects (Stewart, 2007: 158-78; Bussels, 2012: 137-60). Traces of this are present in archaeology, through the myriad aniconic objects of worship in ritual contexts (such as the 'rock' representing the goddess Cybele, brought from Pessinus in Anatolia to Rome in 204 BC, or Roman ancestor portrait-spirits). Countless literary descriptions of spirits in natural landscape features exist, mentioning humans, and non-humans. Ovid describes a grove on the Aventine with 'a spirit within' ('Numen inest': Ovid, Fasti (2000): iii, 296-97). Demons had bodies (Smith, 2008: 479–512). Pausanias speaks about how to evoke statue/spirits at the altars at the Altis in Olympia (Pausanias, Description of Greece (1918): 5.14).

Taking animism more seriously in the study of Roman cults in a post-human framework means making a connection to a less uniform, rational way of practising religion and to a fuller appreciation of cult 'objects' at the margins of humanness. It could lead to a different, virtual reconception of spaces and objects, oriented around flows and synergies of being and becoming. It means taking into account the sacredness of a sanctuary: the space as a whole took on spiritual power and created a state of inbetweenness that was both embodied and temporal. We know that, in Roman religion, existing versus non-existing was different, illustrated abundantly by occurring metamorphoses (human-to-animal human-to-spirit), hybrids, otherness, monsters, and the intense and complex relation between the divine and the human. Our understanding of ancestor worship, of landscapes, and of household spirits such as the lares, penates, and ianua, can be significantly deepened by a post-human, animistic view.

For the Iseum, the humanistic approach has had major impact not only on how we interpret the objects related to the

monument and its area and on our knowledge of ritual practices, but also on how these objects, spaces, and rituals could change the Roman idea of cult practices, of the self and the other, and of Egypt. The temple site yielded quite a few statues (see Figure 3; Lembke, 1994 provides a complete list of objects ascribed to the sanctuary). They consisted of a variety of animals: sphinxes, lions, baboons, and falcons. The statues are discussed in terms of their provenance, whether they are genuinely Egyptian or Roman 'copies' (as shown in Figure 3), which is far removed from how they formed part of a spiritual context. Moreover, it is often argued that the Romans usually did not or could not worship 'animals' (Smelik & Hemelrijk, 1984: 1852–2000; Brenk, 2018: 113–27), which led to these particular objects being frequently interpreted as decorative pieces, to create a luxurious and exotic atmosphere or occasionally even an 'exotic cultural theme park' (Bommas, 2012: 177–212). Brenk (2018: 125) argues that animal worship in Egypt was a very complicated phenomenon directed not at the animal, but at the god. Even if the Pharaonic-



Figure 3. Green porphyry sphinx statue, first century AD, probably from the Iseum Campense (after Roullet, 1972; Lembke, 1994: 242, pl. 34,1). Reproduced by permission of Verlag Archäologie und Geschichte, Heidelberg.

religious perception of these statues was different from the Roman one, and even though statues may be Roman-made, the idea that their iconographic and material qualities could have been conceived as between (non)-human and divine should not be disregarded. We know from both Roman and Roman-Egyptian religion that spirits inhabited such statues. Plutarch, for instance, describes how priests should prepare bodily to encounter such spirits (Plutarch, De Iside e Osiride (1970): 4; see also Bussels, 2012: 139). Even though the idea that spirits inhabited objects may seem speculative as an interpretation of some objects, it is worth considering, for it creates space for past ontologies in which people did not distinguish strictly between object/ subject or material/spiritual.

# TOWARDS A POST-HUMANIST FRAMEWORK IN ROMAN HERITAGE: NOT FEELING 100 PER CENT HUMAN

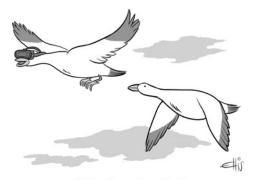
Returning to the digital world and the past, it is clear that, within whatever endeavour and capacity we as archaeologists interact with digital methods, both real life and virtual reality are part of the lifeworld. Virtual reality is, therefore, both real as an appositive presence and part of real life (Ihde, 2002: 5). In this sense, we should not extend what is real but incorporate the digital into the virtual parts of reality. Combining virtual reality and archaeological reconstructions is of course not new, and lately there have been an increasing number of attempts at pulling archaeological reconstructions out of their static fields, instead embracing more fully their dynamics, analytical potential, and value for engagement (e.g. Morgan, 2009; Beale & Reilly, 2017; Eve, 2017). Archaeological reconstructions have also become the subject of discussions concerning their reality and authenticity (StanleyPrice, 2009, 32–46; Morgan, 2018, 136–51). The terms 'digital realism' and 'virtual reality' are often used by designers and companies who wish to create a human-realistic experience, and archaeologists have been mainly worried about accuracy and historical authenticity, with academics favouring a pared-down version of reconstructions so as not to 'mislead' the viewer (e.g. Favro, 2006: 325–31 for visualizations of Roman architecture).

However, as the previous sections showed, realistic or intentionally sober recreations ignore how we draw knowledge from the virtual and is, therefore, not taking full advantage of the dark phenomenological opportunity that it can afford. It also neglects how agency depends on structures that are shared by non-human systems that may lack the capacities associated with human agency or possess powers that humans do not enjoy (Ihde, 1993, 2002: 5; Roden, 2015, 45). Even a so-called 'multisensorial' virtual environment should not be aimed to create a real human experience (as Dong et al. (2017: 1) suggest for their rendering of medieval Coventry), although including multisensorial experiences is considered valuable. The challenge lies in how to include multisensoriality in a VR environment that has been developed with the goal of (de)corporeal experience human aimed almost exclusively at the visual. These are two problems, one more challenging than the other.

Regarding the corporeal aspect, this should not be an issue unless we think the body is a bounded concept instead of one in constant flow. The senses, as Hamilakis (2013: 116) argues, are not necessary for the organic body to operate, despite their functional role. The issue of the visual is less easy to solve, as this is still the main way of accessing both VR and the past despite being a notoriously modern appreciated sense. Breaking through the

emphasis on visuality is, however, extremely important, and attempts can be made through VR by exposing the paucity of visual epistemologies, as well as by engaging with more senses and sensorial interactions through the incorporation of sensually defined landscapes or 'synaesthscapes' (Frieman & Gillings, 2007: 11).

Studies and experiments involving the use of immersive, multisensory virtual reality, 3D-printed objects, and haptic interactions through virtual or augmented reality have demonstrated that these have an effect on how the past and ancient artefacts are experienced by people, therefore establishing them as a potentially fruitful venue for experimenting with the posthuman and the past (Di Giuseppantonio Di Franco et al., 2015, 2016; Eve, 2017, 2018). Here, I argue that a possible entry lies in incorporating virtuality more broadly and using the affective agency of digital methods to create post-human environments and non-anthropocentric perceptions (see Figure 4). Experiments with post-humanism and virtual environments are already being conducted sporadically, for instance in gaming and in exciting studies of digitally complemented zoomorphism (Appleöff Lyons & Brown Jaloza, 2016), or in the study of the digital sensoriality of artefacts to emphasize multi-sensorial and embodied interactions (Papadopoulos et al., in press). Some contemporary gaming initiatives have shifted focus from hand-eye coordination to a experience, full-body immersive experiments are being conducted concerning their empathetic capacity as they foreground the affective experience of others rather than focusing solely on the construction of the self (Swink, 2009; Veale, 2015). The post-human body is diffracted into multiple post-humanities, multiple realities, and multiple pasts, thereby changing the humanist into a range of possibilities that are also non-human. The virtual



"It's like I'm actually walking."

Figure 4. Making fun of anthropocentric perceptions. Cartoon by Ellis Rosen published in The New Yorker, 31 July 2017. Reproduced by permission of The New Yorker.

can release the constraint placed on embodiment and challenge humanist ideology, allowing the post-human body 'to roam free and join with other beings, animate and inanimate' (Seaman, 2007: 248).

## The Iseum Campense Virtual Histories project: an archaeology of imagination

The immersed VR part of The Iseum Campense Virtual Histories project is still in its infancy and is currently in pilot project stage. This element of the wider project aims to use reconstructions, representations, art, and 3D models to create and shift perspectives through an immersive multidimensional and multitemporal environment rather than create a static view of a temple's reconstruction. It, therefore, does not aim to be a realistic reconstruction, but a (non)bodily experience, stimulating us to think differently about ourselves and the past. Rather than 'virtual reality', the project wishes to use virtual unrealities, for the goal is to make people more aware of the wealth of different perspectives by offering immersed alternative non-human views, challenging

the existing expectations people have developed about the past and historical reconstructions. The framework of the post-human in combination with virtual experiences makes it possible to do this. It is important to realize that creating alternative perspectives through the virtual is not something new, since technologies have provided non-human perspectives for a long time; examples include the simple visual transformation of the camera obscura and the technologies of the microscope and telescope that took human vision beyond its ordinary body limits (Mitchell, 1992; Ihde, 2002: 44). Although we can never reconstruct the 'real' experience of a Roman, we can challenge our current ideas about how we think the Roman past works. VR offers at least the potential to have an embodied experience that radically removes us from our daily lived experience. instance, experiencing a virtual approximation of tree time or statue-spirit time as an alternative temporality may perhaps not help us understand the ontological experience of tree-ness or spiritness or statue-ness, but it could be a step in decentring the human experience, 'which may prove critical in navigating the affective networks with which we are entangled' (Appleöff Lyons & Brown Jaloza, 2016: 9).

The virtual *un*reality part of the project aims to foster multiple immersive non-human perspectives that people cannot experience in a human body, such as the deceivingly simple non-human view of the birds-eye perspective. Being explicit about perspectives and worldview has an effect on the knowledge of the viewer concerning Roman perspectives. Likewise, it is possible to show different non-linear, diffracted, and non-human time dimensions and experiences by, for instance, following a reconstructed memory, presenting broken chronologies, or showing time as experienced from the perspective of objects.

Both on an analytical and a non-academic level, the creation, experience, and feedback will enrich our knowledge of the temple site, while the re-creations will give the project members invaluable insights into virtual navigation, religious experience, and material. Moreover, the virtualities themselves offer an entry into how imagination and immateriality work, how people view reality and reconstructions, and how this was achieved in the past—from the Roman period to the nineteenth century.

### Conclusion

This exploration of the presence of the virtual, its continuous entanglement with the non-absent past, and the potential of post-humanism in the field of digital archaeology has been a fruitful adventure, opening the study of Roman sanctuaries to a more inclusive, post-human experience. The 'significant otherness' of Haraway's (2003) Companion Species Manifesto applies to companions in the past too. We cannot simply draw straight lines between ourselves and the Romans in their religious and spiritual experience as much as Western scholarship tends to do. Instead, a multi-species, post-human framework can offer ways of understanding of both their otherness and the relationships we draw between us and them. In this context, extending the concept of the virtual is fundamental for a better understanding of representations outside the Western humanistic approach. Although the virtual appears to be a novel concept brought by digital technology, the virtual is a category with which people have been comfortable for a long time. The virtual is richly embedded in traditional, ritualized forms, in memory, dreams, and countless representations that preceded the digital. Virtuality has always been a part of knowledge construction and the digital can be a tool that brings this closer.

The benefit of immersive virtual reality is, therefore, not the real, nor the human embodiment, but a step into phenomenological darkness. Disembodied viewing is something that allows us to withdraw from anthropocentric perspectives: virtual reality in archaeology should thus not focus on a more 'realistic' sensorial embodied experience but instead transform perceptibility. Digital technology has the potential to do this because it creates 'material without qualities': the design of digital artefacts is largely open, leaving creators with significant power to create non-human views and alternative temporalities. This gives us the opportunity to refrain from Western humanistic categories and the ability to explore different ontologies: that of the spiritual, of the object, and of more animated Roman pasts. We can alter perspectives and create non-anthropocentric awareness, create a different body and modes of materiality, claim experience for multiple object and subject positions. With our current computer-mediated communication, transhumanist popularity, and digital virtual environments generating embodied knowledge, we can observe a return to the virtual in the Western world and in academia in the form of digital objects with materiality, and with absences made present. We should take advantage of this recent opening to otherness and create post-human experiences of past and present categories. This innovation, not in technology but in philosophy, shows us a future in which digital archaeology can be employed with more awareness and care for all our present and past companion species.

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### BIOGRAPHICAL NOTES

Eva Mol is a postdoctoral research fellow in Roman archaeology and art history at the Joukowsky Institute for Archaeology and the Ancient World at Brown University. She works on virtuality and immateriality in archaeology, with research interests ranging from the materiality of Greco-Roman mythology and Roman reception to decolonizing the ancient past.

Address: Joukowsky Institute for Archaeology and the Ancient World, Brown University, 196 Wayland Avenue, 02906, Providence (RI), USA. [email: eva\_mol@brown.edu]. ORCID: 0000-0003-4490-9155.

## Des cyborgs romains! Altérité significative, absence matérielle et présence virtuelle en archéologie de la religion romaine

Cet article considère de quelle manière les archéologues peuvent contribuer à la théorie et à l'apprentissage du monde numérique au-delà de l'application des méthodes traditionnelles et mécaniques du numérique. On soutiendra ici que les technologies numériques actuelles, bien que rarement employées de cette façon en archéologie, peuvent s'avérer utiles, capables de créer des expériences et une prise de conscience non-humaines. On défendra cette position à travers la présentation d'un projet en cours qui manipule expérimentalement le virtuel et le post-humain et qui explore les notions d'altérité dans la religion romaine et les zones d'ombre dans la perception humaine à partir de l'analyse d'un temple à Rome disparu. Le recours à la philosophie post-humaine et à un concept élargi de la virtualité au-delà du numérique permet de modifier nos idées sur les relations entre le divin, l'humain et les objets dans les cultes romains et d'inscrire notre conception du patrimoine dans un cadre post-humaniste. Par ce biais l'archéologie numérique pourra devenir un des moyens permettant de réexaminer et de réinventer nos idées sur ce qui est humain, sur le passé et sur le numérique. Translation by Madeleine Hummler

Mots-clés: post-humanisme, virtualité, archéologie virtuelle, religion romaine, animisme, patrimoine

## Römische Cyborgs! Aussagekräftiges Anderssein, materielle Abwesenheit und virtuelle Präsenz in der Archäologie der römischen Religion

Dieser Artikel betrifft die verschiedenen Arten, wie die Archäologen zu den Fragestellungen der digitalen Welt über die Anwendung von traditionellen und mechanistischen rechnerischen. Methoden beitragen und lernen können. Es wird den Standpunkt vertreten, dass die aktuellen digitalen Technologien, obschon sie selten in dieser Weise in der Archäologie angewendet werden, ein sehr konstruktives Instrument zur Schaffung von nicht-menschlichen Erfahrungen und Bewusstsein sein können. Diese Argumentationslinie wird durch die Darstellung eines laufenden Projekts, das mit den virtuellen und posthumanen Bereichen experimentiert, verfolgt; das aussagekräftige Anderssein in der römischen Religion und die dunkeln Seiten der menschlichen Wahrnehmung werden durch die Analyse eines verschwundenen Tempels in Rom auch untersucht. Die Anwendung der posthumanen Philosophie und eines erweiterten Virtualitätsbegriffs über den digitalen Bereich ermöglicht es, unsere Einstellung zu den Verhältnissen zwischen Gegenständen, das Menschliche und das Göttliche in römischen Kulten zu ändern und das römische Erbe in einen posthumanistischen Rahmen einzufügen. Auf dieser Art kann sich die digitale Archäologie zu einem der Mittel der Nachprüfung und Neuerfindung unserer Vorstellungen über das Menschliche, die Vergangenheit und die digitale Welt entwickeln. Translation by Madeleine Hummler

Stichworte: Posthumanismus, Virtualität, virtuelle Archäologie, römische Religion, Animismus, kulturelles Erbe