Using the necropolis environments of the Vesuvian region of Imperial period Italy as a case study, this paper examines the ways in which multiple, overlapping, and temporally specific senses of place were associated with Roman funerary landscapes. In particular, it explores the role of the agency of the natural environment—e.g. the more-than-human or 'planty' agency of trees, plants, flowers, and fruits—in the creation of these places, arguing that they are best understood as the dynamic product of moment experiences. Focusing on issues of temporality and sensory perception, it is demonstrated that, just as place was itself always in the process of becoming, so too were many of the elements which produced it. Consequently, this study offers a new perspective on the ephemerality of place which foregrounds the currently undervalued material agency of the more-than-human world in the construction of Roman experiences, identities, and knowledge.

Keywords: Pompeii; sensory perception; sensescape; place; more-than-human agency

Introduction
The Roman cemetery is often perceived as a locale dominated by monumental funerary memorials which, combined with the texts of inscribed epitaphs and the performance of mortuary rites, perpetuated uncontested memories and fixed in stone the identities of the dead and their living mourners. Although its inscriptions might celebrate social mobility, from this perspective the sense of place projected by the physical landscape of the Roman cemetery exemplified permanence and sought to defy future change. This impression is challenged, however, by recent studies of space and place which have highlighted the decidedly fluid qualities of any locale considered to have a sense of place. More specifically, customary assertions about place as primarily static have been robustly challenged by the notion that places possess multiple and mutable meanings: they are ‘constantly in the process of becoming,’ existing ‘only in the present, for moment-by-moment and experience-by-experience, place gives way to new place’ (Rohl 2015: 6). Places are, according to these standpoints, more than a set of coordinates or an identifiable geospatial location in the landscape. Instead, they are an ever-changing, multiple, and temporally specific product of a ‘sensuous inter-relationship of body-mind-environment’ (Howes 2005: 7), created in the now by the performance of human actions in relation to the material and temporal world (Jones and Cloke 2008). Consequently, returning to the same locale need not always mean experiencing the same place.

Moreover, just as there may be more to the creation of place than previously assumed, so was there more to the Roman cemetery than the brick and stone structures which have provided the focus for conventional studies. Cemeteries might also be characterised by a vibrant organic environment of vegetation (Jashemski 1970–71; Campbell 2008), which unlike its human-made components was animated by a combination of both predicable change and unruly behaviour. As material agents in their own right, these trees, shrubs, flowers, and weeds had the capacity to produce a range of fluctuating sensory experiences at different moments, and in relation to the performance of different activities (Jones and Cloke 2008: 80–81; Head and Atchison 2009; Draycott 2015). In broad terms, this can be categorised as a form of more-than-human...
agency (Pitt 2015; Franklin 2017; Harris and Cipolla 2017: 163–164), but Lisa Lodwick (2017: 154), in a recent study of Roman Britain, has followed work in human geography by employing ‘planty agency’ as a more specific term for the affective capacities of flora (see Head et al. 2012; Brice 2014). Planty agency—that is the power of plants to affect other entities in order to produce action or motion—provides flora with the ability to make an affective difference in the world, not least because of the ways in which this agency becomes entangled with other more-than-human and human components of the environment (Brice 2014: 946; Head et al. 2014). Geographer Hannah Pitt (2015: 49) has consequently argued that it is imperative to pursue studies which ‘counter a habit of regarding flora as passive and insentient.’ Her call for researchers to consider what plants do, and not merely how humans manipulate them or think about them, can also be extended to archaeology, where critical attention to the implications of planty agency can serve to enhance explorations of past social and cultural formations and experiences, including those associated with place.

Nevertheless, studies of Roman cemeteries have yet to consider the full implications of the dynamic ecological component of their environments and continue to maintain the ‘conventional dichotomy between natural and artificial’ that Ingold (1993: 162) once described as highly problematic, and which sociological, anthropological, and geographical scholarship has largely rejected (Franklin 2017). Using the necropolis environments of the Vesuvian region (Campania) of Imperial period Italy as a case study, this paper tackles this issue for the first time, demonstrating how a recognition of planty agency reveals the presence of multiple, overlapping, and temporally specific senses of place associated with Roman funerary landscapes. Accordingly, Roman cemeteries are shown to be places where memories and experiences were predicated on temporal and sensory ‘moments of encounter’ (Amin and Thrift 2002: 30) which could involve the mutual entanglement of more-than-human agents (in this instance plants) with both humans and human-made commemorative structures. This new acknowledgement of the organic ephemeral nature of place makes it possible not only to understand these particular locations in more nuanced ways, but also brings to the fore the currently undervalued material agency of the more-than-human world in the construction of broader Roman experiences, identities, and knowledge.

Creating, Experiencing, and Remembering Place

Diane Favro (1996: 6) notes that ‘Romans were experienced readers of non-verbal texts. People of all classes read messages embedded in their surroundings’, an opinion echoed by Louise Revell’s (2009: 117) observations that ‘knowledge was both written into and read off from’ architecture, in primarily visual ways. Indeed, geographer Tim Cresswell’s (2004: 11) definition of place as ‘a way of seeing, knowing and understanding the world’ is also heavily dependent upon communication via sight. According to arguments such as these, places are locations which acquire meaning because they include human-made physical features imbued with a complex range of communicable ideas, with understandings of the world and one’s place within it predicated on possessing the cultural knowledge necessary to identify or otherwise receive their messages. Hence, places are constructed, manipulated, or even destroyed in order to make political, cultural, social, and personal statements. Many studies of ancient urban landscapes have adopted this understanding of the significance of place, demonstrating the ways in which experiences of the built environment shaped identities (e.g. Edwards 1996; Laurence 1996; Revell 2009; Laurence and Newsome 2011; Scott 2013). The monuments and tombs which comprised the cities of the dead have also been interpreted from this perspective, investing the cemetery with the power to play a substantial role within wider social and cultural processes: ‘In the [Roman] cemetery, people reflected and constructed their social identity, their familial role, their work or their standing in the community’ (Hope 2009: 154). This has been aided principally by the emphasis that has been placed on the central role of memory within the process of creating and decoding the cues associated with particular locations or collections of structures, especially those associated with the commemoration of the dead (Koortbojan 1996; Carroll 2006; 2007/2008; Hope 2009; Campbell 2015).

In contrast, Tim Ingold (1993: 155) teased out the more intricate multisensory aspects of place when he observed that it ‘owes its character to the experiences it affords to those who spend time there—to the sights, sounds and indeed smells that constitute its specific ambience. And these, in turn, depend on the kinds of activities in which its inhabitants engage.’ Importantly, his words emphasise the dynamism of the different sets of actions that are performed at a particular geospatial locale and their pivotal role in the creation of fluctuating senses of place. For example, the sights, sounds, and smells experienced at a tomb by Roman mourners engaged in the disposal of a newly deceased relative might be different from those they encountered during later commemorative activities, producing an altered sense of place. Ingold’s aim was to encourage a move away from largely visual definitions of place as a collection of static features,
monuments, or structures designed to communicate with viewers, towards an acknowledgement of place as the product of performance, that is of activities and time, or what he termed ‘taskscapes’ (Ingold 1993: 157). Recent studies of the ancient world have acknowledged these ideas and have begun to consider the impact of more complex sensescapes on understandings of place, including the role of physical movement (Betts 2011; 2017; Östenberg et al. 2015; Graham 2017; forthcoming). At the same time, other studies have pushed Ingold’s thinking further, asserting the need to appreciate not only the fluidity of the activities and experiences that create place, but the very ephemerality of place itself.

Anthropological and geographical analyses, for instance, have shown how the weaving together of moving bodies and their sensory engagement with the world at particular moments in time actively produces place that is temporally specific, which in turn contributes to the creation of certain kinds of personal knowledge and identities (Edensor 2000; Ingold 2004; Thrift 2004; Phillips 2005). This has also been extended to archaeology, with Peter Biehl (2007: 178–180) observing for ancient cult contexts that place is itself ever-changing, multiple, and temporally specific: ‘cult places can be understood as always to be in the process of becoming or to be more like events rather than static end products. They not only exist as material entities, they also happen. They are continuously being made and remade, and are always changing.’ As his words indicate, there is much more to place than physical location: that places happen situates them in time, as much as it does in space, to the extent that place might be conceived of as a ‘time-space event’ (Moser and Feldman 2014: 6; see also Knott 2005: 29). The concept of place as something more than a material or durable end product’ applies to all instances in which there is a demonstrable coalescence of human, material, temporal, and conceptual agents, including the Roman necropolis. Cemeteries were, after all, at once the setting for identifiable and prescribed temporal human activities on the occasion of a death and at defined points in the calendar (i.e. annual festivals of the dead, birthdays, and anniversaries), and sites comprised of material elements which were, to borrow Ingold’s (1993: 162) already cited phrase, both ‘artificial and natural.’

Artificial and Natural in the Roman Cemetery

Observations about the dynamic production and fluidity of place have significant implications for the ways in which we understand the role of the ancient cemetery in the creation of individual and collective identities, as well as in the production of shared forms of knowledge concerning the world and a person’s position in it. Existing interpretations of the significance of the Roman cemetery, such as those noted above, are based primarily on (a) the assumption that place is immovable, stable, and unchanging and therefore lends itself to the sort of ‘fixing’ of identities that epitaphs and tomb monuments evidently strove to achieve, and (b) studying an extant environment of archaeologically identified structures, that is the tombs, monuments, graves, dining facilities, inscriptions, relief images, and pathways that have been catalogued, described, plotted, and analysed by generations of scholars. The first assumption has already been challenged by the preceding discussion, but can be explored even more critically if the second point is also re-evaluated to take more comprehensive account of the necropolis environment.

For members of Roman society, funerary monuments were responsible for establishing a very literal, not to mention legal, designation of cemetery ‘place’ through the physical presence of the cremated or inhumed remains of the dead, the disposal of which was restricted to areas outside of cities, preferably beyond the pomerium (Hope 2009: 154–159). The subsequent commemorative monuments associated with individual and collective burials undoubtedly created ‘a visually stunning and distinct landscape marked by graves’ (Campbell 2008: 31). Nevertheless, graves, tombs, and funerary stelae were not the only material features that those performing funerary and post-funerary rituals in the cemetery encountered or interacted with in embodied and sensory ways, because an ecological environment also prevailed within Roman burial areas, both in the curated or maintained form of tomb gardens (cepotaphia) and, at sites such as Pompeii, through the illusion of gardens produced by frescoes and decorative elements (Campbell 2008). Nature was also present in the form of pre-existing or subsequently colonising local or ‘wild’ vegetation. Given the nuanced understanding of place as the fluid and mutable congregation of material things, actions, and time described above, it becomes crucial to ask what role these natural or, more accurately, non-human elements of the cemetery played within the construction and experience of senses of place. This is important not least because, unlike the almost imperceptible deterioration of its artificial counterpart, the natural environment was subject to discernible changes that combined the predictable with the unexpected. What is more, whilst nature might give the appearance of periodic self-regeneration through a seasonal cycle, the ‘material vulnerability’ of trees and plants, and the pace at which change might occur, could be especially powerful: ‘trees can die, whereas non-organic objects can only decline or decompose’ (Hunt 2016: 76).
'These are Our Gardens'
The ecological environment of the Roman cemetery is occasionally integrated into discussions of particular funerary and commemorative practices, although most scholarship has been concerned with collating the evidence for so-called ‘garden tombs’ (cepotaphia or cepotafia) rather than the wild flora of the local area (the two most notable examples are Jashemski 1970–71; Campbell 2008). The garden tomb probably originated in the eastern Mediterranean, and it has been suggested that its introduction to Italy was a consequence of elite interest in Hellenistic culture and, since it ‘paid for itself’, heightened dependence upon small-scale horticulture arising from the expansion of urban populations (Purcell 1987: 35). Although the term cepotaphium is not attested in Italy until the second century AD (Toynbee 1971: 95), gardens seem to have been a feature of Italian cemeteries from at least the first century BC. This is perhaps not surprising given a widespread cultural appreciation of gardens as expressions of luxuria and status, coupled with the outdoor lifestyle encouraged by the Mediterranean climate (von Stackelberg 2009; Spencer 2010). Evidence for tomb gardens, sometimes also referred to in inscriptions using the term hortus, can also be found throughout the Western provinces, including Gaul and northern Britannia (Carroll 2006: 98; Campbell 2008: 36; Hope 2009: 173–174).

The most well-known literary reference to a tomb garden is found in Petronius’s Satyricon 71 where, in the course of describing his overly elaborate funerary monument, Trimalchio states, ‘I want the monument to have a frontage of one hundred feet and to be two hundred feet in depth. For I should like to have all kinds of fruit growing round my ashes, and plenty of vines.’ Trimalchio refers to a garden designed to produce items that might be sold to finance the upkeep of his tomb and the commemorative rituals that were to be performed on his behalf, and the epigraphic record contains many similar references to the use of produce grown at the tomb for this purpose. Terms used to refer to such plots include ager (field) and praedrilolum (small estate), and inscriptions describe tombs to be adorned with ‘the seeds of vines, fruit-trees, flowers, and plants of all kinds’ (CIL VI, 10237), and a man who ‘made his mausoleum fruitful by planting trees, vines and roses’ (CIL XII, 3637; Toynbee 1971: 97). The epitaph of the freedman doctor Gaius Hostilius Pamphilus and of Nelphia Hymnis from Rome proclaims: ‘This is our eternal home, this is our farm, these are our gardens, these are Our Gardens’ (CIL VI, 9583), whilst the will of Sextus Iulius Aquila (CIL XIII, 5708), who lived at Langres (Gallia Lugdunensis) in the second century AD, stated that he was to be buried in a tomb situated in orchards (pomaria) tended by three landscape gardeners (topiarii) and their apprentices (Carroll 2006: 99). An inscription from Altinum in northern Italy reveals that Lucius Ogius Patroclus built a garden for the tomb of the collegium of the centonarii in order that ‘from their yield a greater abundance of roses and eatables may be offered to his patron and to himself’ (CIL V, 2176; Carroll 2006: 46). A second or third century AD epitaph from Gaul reads: ‘To the spirits of the departed children and wife of Publicius Calistus, who for himself consecrated a vineyard two thirds of half an acre in area, from whose yield he wishes libations of no less than 15 measures of wine to be poured for him each year’ (CIL XII, 1657; Hope 2007: 154). Toynbee (1971: 98) highlighted a similar example in which another man from northern Italy built ‘gardens from whose yield my survivors may offer roses to me on my birthday forever—gardens which, I direct, shall not be divided up or misappropriated’ (CIL V, 7454). Attempts were often made to control who was buried in a mausoleum, and there was clearly an equal concern to protect any plot of productive land associated with it.

The economic importance of the cepotaphium may have been one of the reasons why such tombs became popular, but not all tomb gardens were for the production of fruit and vegetables, and there are many references to plots which were planted as verdant places in which to relax and honour the dead. An inscription from Cirta (Algeria) evokes such a place: ‘On my tumulus bees shall sip the thyme blossoms, the birds shall sing pleasantly to me in verdant grottoes; there buds the laurel, and golden bunches of grapes hang on the vines’ (CIL VIII, 7854; Jashemski 1970–71: 100–101); as does the Greek epigram accompanying a landscape fresco in a tomb of the first century BC on the Via Latina at Rome, which describes ‘enchanting’ trees heavy with fruit, and the pleasing sounds of the nightingale, cicada, swallow, and cricket (CIG III, 6270–6271; Stevens 2017: 160). A similar scene is conjured by the description of a tumulus tomb erected to commemorate the gnat at the centre of Culex, a poem probably of the first century AD incorrectly attributed to Virgil:

‘Here are to grow acanthus and the blushing rose with crimson bloom, and violets of every kind. Here are Spartan myrtle and hyacinth, and here saffron, sprung from Cilician fields, and laurel, the great glory of Phoebus; here are oleander, and lilies, and rosemary, tended in familiar haunts, and the Sabine plant [juniper], which for men of old feigned rich frankincense; and marigold, and glistening ivy with pale clusters, and bocchus, commemorative of Libya’s king. Here are amaranth, blooming humastus, and ever-flowering laurestine. Yonder fails not the Narcissus, whose noble
It has been argued that gardens ‘are not natural features, they are organic monuments’ (von Stackelberg 2009: 63) capable of mediating between the past, present, and future, and people living in Roman Italy were evidently no strangers to the idea that curated nature could be a powerful communicator. During the early Principate, Augustus drew on widely held concepts of laurel as a symbol of purification, renewal, and victory, as well as its association with Apollo, to incorporate it, in both real and iconographic form, into new building projects, adorning his own mausoleum and house with living laurel trees (Favro 1996: 224; von Stackelberg 2009). Plants and trees were also associated directly with the divine and might be integral to particular cult practices, such as the arboricultural activities of the Fratres Arvales which tended the sacred grove of Dea Dia at Rome (Hunt 2016), or the celebration of Diana Nemorensis at Nemi (Ovid Fasti 3.263–274; Statius Silvae 3.1.52–60). Ailsa Hunt (2016: 244) has recently demonstrated the complex ways in which sacred trees ‘fleshed out Roman imagination of the identity of the deities they worshipped’, whilst the interpretation of arboreal behaviour ‘constituted no less than a continual reshaping of Roman knowledge of the divine, as it communicated itself through the natural world’ (Hunt 2016: 223).

Identifying Nature in the Necropolis

The cemeteries of Pompeii and other sites buried by Vesuvius provide the most substantial archaeological evidence for tomb gardens. Jashemski (1970–71; 1979), who studied the palaeoenvironmental history of the region intensively, noted probable cepotaphia associated with two schola tombs (funerary monuments in the form of semi-circular stone benches) outside the Porta Stabia, as well as a possible third. The small walled enclosures behind the semi-circular benches—later used for the disposal of rubbish—have variously been interpreted as either places for burials (despite the absence of any evidence for human remains) or tomb gardens, although the two functions need not be mutually exclusive (Mau 1899: 430; Spano 1910; Jashemski 1970–71: 103; Campbell 2008: 38–39; Emmerson 2010: 79, 81). Another schola built outside the Porta Nola by the duovir Numeris Herennius Celsus for his wife Aesquillia Polla, has a similar enclosed area surrounded by a low wall and filled with soil (Jashemski 1970–71: 103; Campbell 2008: 39; although recent re-excavation has proven inconclusive as to its function: Kay et al. 2017). Other tombs at Pompeii have been pinpointed as possibly having gardens, including the large area surrounding the so-called ‘Unfinished...
Tomb gardens and burial enclosures need not necessarily always comprise distinct entities: tombs with enclosures are common at Pompeii and other Italian sites such as Ostia, Sarsina, and Aquileia (Graham and Hope 2016: 168). Often these are found to contain multiple burials, with or without markers, and might once have been planted. It also remains possible that individual graves were marked by shrubs, trees, and low hedges, or even adorned with flowering plants in pots. The plot of a tomb at Scafamily close to Pompeii was found to take the form of a triangular enclosed area containing the roots of six trees (Jashemski 1970–71: 106–110). Two of the roots were located in the rear corners of the plot, and the other four were arranged in a square in front of the mausoleum itself. Jashemski (1970–71: 110) suggested that these were cypress trees, and that the rest of the plot was planted with fragrant flowers. The arrangement of the four trees frames an area of burning, interpreted as an ustrinum (pyre site). The danger inherent in lighting a pyre in such close proximity to these trees suggests that they were planted at a later date, perhaps in order to preserve the memory of the event, thus highlighting the use of vegetation as both a structural and commemorative element which could emphasise key features of a site in much the same way as the columns in the garden of the Villa of the Mosaic Columns framed a small pool. There is therefore no reason to assume that burials—and therefore subsequent commemorative activities—did not take place within a garden-like setting.

The variability inherent in the evidence for these gardens should nevertheless not be considered unusual. None of the plots identified as tomb gardens conform to a standard pattern or arrangement, in much the same way as domestic gardens varied: they were as mutable and open to manipulation as the rest of the monument, if not more so. Some were also more private than others, being visible only to those permitted to enter a tomb or enclosure (e.g. the Villa of the Mosaic Columns), or through the use of low walls that kept visitors at a distance, preventing, or at least discouraging, entrance to a planted area.

At Pompeii it seems unlikely that tomb gardens were used for the production of fruit or vegetables on a large scale, with no inscriptions referring to their use in the intensive production of edible or saleable goods. This does not mean, however, as Jashemski (1979: 25) pointed out for domestic gardens, that fruit and vegetables were not sometimes to be found amongst ornamental planting. Similarly, although many houses at Pompeii had formal gardens, their walls might be painted to suggest that beyond a low fence the garden continued in a form more akin to the disorderliness of the countryside (Jashemski 1979; Settis 2002; von Stackelberg 2009). This illusion may have been replicated in reality within the cemetery, since the area outside any tomb enclosure (often a low wall not dissimilar from the low fence depicted in garden frescoes) would also have been the setting for ‘wild’ flora. Jashemski (1970–71: 110) perhaps tended towards romanticism when she suggested that, ‘Pompeians would not leave plots of bare soil, especially in conspicuous places, near the city gates’, but as Owain Jones and Paul Cloke (2008: 81) have observed, the agency of trees, and other forms of vegetation, means that they have the capacity to act autonomously in seedling themselves and growing in unexpected places and in unexpected forms.’ Grass and self-seeded plants (including some which in certain contexts might be considered invasive and unwanted or, in other words, weeds; see Head et al. 2014: 862–863) should, at the very least, be expected within and, even more crucially, around, in between, and along the pathways connecting the plots and enclosures of funerary monuments, especially in an area as fertile as Campania where any area left undeveloped is soon colonised by wild species. A glance at the streets of tombs at Pompeii today reveals how quickly nature reclaims what has been taken from it: the Porta Stabia schola tombs replanted in the early twentieth century were overgrown when Jashemski investigated them in the 1970s and were almost impossible to access until recent new excavations (Emmerson 2010). This was, in fact, the very wild, untamed, and variable landscape that could be seen beyond the fence in a garden fresco.

Nonetheless, there remains a tendency within scholarship on funerary landscapes to imagine masonry tomb structures built within an almost sterile environment (an image perhaps unintentionally perpetuated by the dominance of topographical plans of cemeteries, as well as excavation techniques focused on revealing and cleaning around human-made features), or at least arising in the context of the modern curated environment in which they are encountered today, which seeks to protect the integrity of extant archaeological features by preventing them from becoming overgrown or damaged by invasive vegetation. As a consequence, scholars have been able to assert, for example, that ‘placing your monument within a large enclosure that included an elaborate flower garden, an orchard or even vineyards would most certainly have caught the eye of those passing’ (Campbell 2008: 43) because, in this imagined sterile and artificial
landscape, it would stand out from the predictable masonry and marble of other tombs. Whilst there may be some truth in this statement—maintenance of thoroughfares in and out of towns such as Pompeii probably meant that vegetation was prevented from encroaching too much on roads and city walls—it should be acknowledged that tomb gardens might also have blended in with the ecological elements of the suburban environment as much as they stood out from it, effectively blurring its boundaries.

**Temporality and the Senses in the Roman Cemetery**

Having established that areas within and around the tombs and monuments of a Roman cemetery could be occupied by a range of wild and cultivated forms of vegetation, fundamental questions remain to be asked about what role this aspect of the funerary environment played in the creation of particular understandings of the necropolis as place. To what extent did the planty agency of trees, flowers, fruits, and weeds, impact upon the sensory experience of activities performed in these settings? Moreover, how significant was the perpetual transformation of this environment for the temporal aspects of the production of place?

Domestic and funerary gardens at Pompeii, and in other areas of Italy, were essentially green, featuring evergreens such as laurel, myrtle, box, ivy, and rosemary, with the flowers of the rose, lily, violet, daisy, and oleander (effectively the *viridia* of the *Culex*) adding colourful seasonal notes (Jashemski 2001). The seasonal aspect of the funerary garden and the wider natural environment of the cemetery is important, and a glance at the spread of flowering of these popular plants across the year makes it possible to reconstruct how the cemetery may have been experienced differently throughout its annual cycle (Table 1). The majority of these plants (unsurprisingly) flowered in the spring and summer, with some extending their flowering season into the autumn, whilst the only significant plant to flower in winter was the ‘ever-flowering lares-tine’ (Virgil, *Culex* 407). All year round, the Roman garden, the cemetery, and the surrounding countryside was dominated by evergreens accompanied by deciduous species, although it is important to remember that these would have featured a range of different shades of green, especially as fresh new leaves began to shoot (Figure 2). As late winter gave way to spring, the character of the environment changed as brighter tones were gradually reintroduced in the form of the pale yellows, greens, blues, and purples of box, laurel, juniper, and violet. The flowers of the daffodil would have brought the first real brightness, before the vivid

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**Figure 1:** Garden fresco from the House of Venus in the Shell, Pompeii (Author’s photo 2005).
Table 1: Seasonal cycle of flowering at Pompeii, based on plants described in the *Culex* and featured in wall paintings, all considered by Jashemski (2001) to be the most common wild and cultivated species (Source: RHS 2018).

<table>
<thead>
<tr>
<th>Common name</th>
<th>Scientific name</th>
<th>Type</th>
<th>Flowering</th>
<th>Colour</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crocus</td>
<td>(Various)</td>
<td>Deciduous</td>
<td>Early Spring</td>
<td>Various</td>
</tr>
<tr>
<td>Box</td>
<td><em>Buxus sempervirens</em></td>
<td>Evergreen</td>
<td>Spring</td>
<td>Yellow-green</td>
</tr>
<tr>
<td>Laurel</td>
<td><em>Laurus nobilis</em></td>
<td>Evergreen</td>
<td>Spring</td>
<td>Pale greenish-yellow</td>
</tr>
<tr>
<td>Narcissus/Daffodil</td>
<td>(Various)</td>
<td>Deciduous</td>
<td>Spring</td>
<td>Yellow, white</td>
</tr>
<tr>
<td>Rosemary</td>
<td><em>Rosmarinus officinalis</em></td>
<td>Evergreen</td>
<td>Spring</td>
<td>Pale blue</td>
</tr>
<tr>
<td>Savin (Juniper)</td>
<td><em>Juniperus communis</em></td>
<td>Evergreen</td>
<td>Spring</td>
<td>Yellow</td>
</tr>
<tr>
<td>Violet</td>
<td>(Various)</td>
<td>Evergreen or deciduous</td>
<td>Spring</td>
<td>Purple, yellow, white, blue</td>
</tr>
<tr>
<td>Hyacinth</td>
<td><em>Muscari comosum</em></td>
<td>Deciduous</td>
<td>May-July</td>
<td>Purple</td>
</tr>
<tr>
<td>Amaranth</td>
<td><em>Amaranthus caudatus</em></td>
<td>Deciduous</td>
<td>Summer</td>
<td>Red</td>
</tr>
<tr>
<td>Rose</td>
<td>(Various)</td>
<td>Deciduous</td>
<td>Spring-Autumn</td>
<td>Various (bright)</td>
</tr>
<tr>
<td>Grape</td>
<td><em>Vitis vinifera</em></td>
<td>Deciduous</td>
<td>Summer</td>
<td>Pale green</td>
</tr>
<tr>
<td>Madonna lily</td>
<td><em>Lilium candidum</em></td>
<td>Deciduous</td>
<td>Summer</td>
<td>White and yellow</td>
</tr>
<tr>
<td>Marigold</td>
<td>(Various)</td>
<td>Deciduous</td>
<td>Summer</td>
<td>Yellow</td>
</tr>
<tr>
<td>Oleander</td>
<td><em>Nerium oleander</em></td>
<td>Evergreen</td>
<td>Summer</td>
<td>White, pink or red</td>
</tr>
<tr>
<td>Picris</td>
<td><em>Picris echioides</em></td>
<td>Deciduous</td>
<td>June-October</td>
<td>Yellow</td>
</tr>
<tr>
<td>Acanthus</td>
<td><em>Acanthus mollis</em></td>
<td>Deciduous</td>
<td>Late Summer</td>
<td>White and purple</td>
</tr>
<tr>
<td>Myrtle</td>
<td><em>Myrtus communis</em></td>
<td>Evergreen</td>
<td>Late Summer-</td>
<td>White</td>
</tr>
<tr>
<td>Ivy</td>
<td><em>Hedera helix</em></td>
<td>Evergreen</td>
<td>Early Autumn</td>
<td>Greenish yellow</td>
</tr>
<tr>
<td>Laurestine</td>
<td><em>Viburnum tinus</em></td>
<td>Evergreen</td>
<td>Winter</td>
<td>White, pink</td>
</tr>
<tr>
<td>Cypress</td>
<td><em>Cupressus sempervirens</em></td>
<td>Evergreen</td>
<td>–</td>
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</tr>
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Figure 2: Area behind the Tetrapylon tomb, Porta Nocera necropolis (Pompeii) in February 2012 (Photo: Darren Puttock. Reproduced under CC-BY-NC-ND 2.0 License).
tones of the summer flowering rose, amaranth, hyacinth, marigold, lily, and oleander took over and competed with one another for the attention of pollinators (Figure 3). As autumn arrived some of these colours, including the flowers of the rose and the acanthus, might remain for a short while, whilst the white of the myrtle and ivy began to announce the return of winter and the repeat of the cycle (Figure 4). Colourful flowers were therefore present for large parts of the year, but there were subtleties within this pattern: the bright colours of the rose and oleander, and the strong perfume of the hyacinth, for instance, would have contrasted with the small, understated white flowers of the myrtle, or the pale green of the laurel. In the summer, the natural environment of the cemetery was almost certainly one of vibrant colour and of strong fragrant flowers, whereas in the autumn and winter its visual impact was retained but in a more generally subdued form.

Many of the plants listed in Table 1 are native species which could be found growing outside the city and along the edges of cultivated fields. The ‘succession of bloom against an evergreen background’ which Jashemski (1970–71: 102) described for Pompeian gardens was therefore also reflected by the plants which

Figure 3: Tetrapylon tomb and the Porta Nocera necropolis (Pompeii) in July 2015 (Photo: Jebulon. Reproduced under CC0 1.0 Universal License).
grew wild in the region of Vesuvius. The oleander, for example, still grows in the Campanian countryside (as well as between the ruined tombs of the Porta Ercolano and Porta Nocera: Figure 3), and is the plant most commonly depicted beyond the low garden fence in ancient frescoes, suggesting that as well as being an element of the garden it was also a common feature in the wild (Jashemski 1979: 54, 82). Indeed, in her detailed study of the fresco evidence, Jashemski (2001: 82) noted that although pattern books were available, we had the impression that the artist was painting flowers and fruit that were familiar to him … the plants pictured were those growing in the area at the time of the eruption.

With colour came also the distinctive scents of flowers (and leaves, perhaps also fruits), which sought to draw the attention of pollinating insects as part of the ‘embedded purposeful agency’ of plants, or in other words their need to reproduce (Jones and Cloke 2008: 81). As a consequence, olfactory experiences of the cemetery will also have varied throughout the course of the year, with particular scents coming to the fore at certain moments, such as the heady hyacinth in late spring and the distinctive sweetness of the rose in summer. What is more, the smellscape of the cemetery altered in relation to other cyclical and less predictable temporal factors, such as weather conditions which may have temporarily dampened or heightened the strength of floral scents, as well as time of day (the fragrance of roses, for example, is more powerful in the early morning). It is also worth noting that, as scientific studies have demonstrated, modern rose cultivation focused on maximising size and colour has meant that roses have lost much of their original fragrance, and that those of the ancient world would have smelled sweeter than they are experienced today (Tholl and Gershenzon 2015). With pollen, nectar, berries, and fruits also came the sounds associated with other more-than-human agents, including insects and birds eager for their succulent goodness, the rustle of the wind in the leaves, and the pattering of raindrops. As the seasons changed, the scent of decaying flowers, and overripe or decomposing unpicked and fallen fruit, may also have become evident. In addition, it must not be forgotten that the primarily visual and olfactory affordances emphasised here existed within a wider multisensory context that included other sounds and tastes (of funerals and commemorative meals), as well as tactile and other broadly haptic experiences, such as those connected with proprioception and kinaesthesia, which were produced by the many activities and movements that were performed in these settings.

Paying attention to more-than-human agents such as plants therefore presents an opportunity first to identify, and then to grasp the significance of temporality from a new perspective, acknowledging that the

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**Figure 4:** Tetrapylon tomb and adjacent tomb of Lucius Publicius Syneros, Aebia Fausta, Lucius Aebius Aristo and Aebia Hilara, Porta Nocera necropolis (Pompeii) in October 2009 (Photo: Paul Assman and Jill Lenoble. Reproduced under CC BY 2.0 License).
temporal properties of place might extend beyond those established by human agency alone (i.e. festival dates within the calendar that brought people to the cemetery, or the length of time it took to perform mortuary rites or to participate in a funerary banquet at the graveside). As agents which are themselves constantly in the process of becoming, as they ‘grow and bud … shed their leaves and change their colour’ (Hunt 2016: 76), plants therefore not only embody and demonstrate the material fluidity of place, they also enable its temporality by presenting humans with an ever-changing material framework for their actions. What is more, collectively, they do this in complementary ways, as the material agency and sensory affordances of some plants, such as the evergreen box, remain much the same all year around, providing a consistent sensory setting against which other plants and trees might undergo more rapid or regular change (Draycott 2015: 67; Lodwick 2017). In this way, any sensory landscape incorporating plants and trees is simultaneously stable and broadly predictable as a result of seasonal patterns, but also in near constant flux, offering those who perform activities there a sense of timeless continuity combined with an ever-changing sensory experience of the now, as colours and smells develop and fade, as sweet and sour fruits are produced, as insects and birds are attracted to blossom and the nectar of flowers, and as the growth of foliage impedes, restricts, or directs their movement, perhaps even bringing with it the risk of (temporarily) painful scratches, stings, or bouts of hay fever. Even sensorially consistent evergreen trees exercise planty agency as they grow and physically extend themselves upwards and outwards, obscuring views, creating obstacles, and casting shade. In turn, they provide a habitat for other non-human agents, such as birds, animals, and insects, as well as mosses, lichens, and fungi. As a consequence, and despite the best efforts of funerary monuments, time never stood completely still in any Roman cemetery in which plants and trees formed even a small component of the environment, meaning that each activity performed there occurred in relation to a temporally discrete more-than-human sensescape. This, it can be argued, was vital not just for the production of the ‘time-space’ element of place but also for the creation of much more nuanced forms of personal and cultural knowledge as the sensory and material affordances of the natural environment of the Roman cemetery colluded with the activities of mourners and other visitors.

Making and Remaking Place during the Parentalia

The seasonal sensescape of the cemetery was far from unique to that setting and would have been largely mirrored by the domestic or public gardens of the city. However, in the context of an investigation of place as the product of time, discrete human action, and the material world, it is worth examining the subtleties of the primarily visual and olfactory seasonal cycle described here in relation to one example of an activity that was specific to the cemetery. The Parentalia, or dies Parentales, was an annual festival (13–21 February) during which families visited the necropolis to make offerings, hold banquets, and to honour the dead with other commemorative and communicative activities (Ovid, Fasti 2.533–542; Hope 2009: 99–102). As an event (or more accurately a series of events), the Parentalia has been explored frequently in the context of commemoration and identity, particularly the way in which it brought the family or community together and drew attention to the status, identity, and character of the dead as they were celebrated and embedded within the built environment (Graham 2005a; 2009; Stevens 2017). However, when set in the context of the above discussion of the ecological environment of the cemetery, the date of the festival may also have been especially significant for the creation of a particular temporally specific place for the performers of these activities, which distinguished it from the cemetery they visited on other occasions (perhaps during other festivals), or which they simply passed through on a journey to somewhere else.

Importantly, the Parentalia occurred at the very beginning of spring (which begins rather early in Campania) meaning that it therefore coincided with the start of the major flowering season. Consequently, people participating in the specific activities of the festival performed acts which renewed their dedication to the memory and ongoing care of the deceased at the same moment as the natural environment in which they acted began to undergo its own first significant change of the year: a point which marked the transition from winter to spring, and of the renewal of life after a (comparatively) barren winter. During the Parentalia, the cemetery assumed characteristics that were distinctive to that time of the year (compare Figure 2 with Figures 3 and 4) and which would be associated in the minds and memories of participants with the annual repetition of that festival, not with any of the other formal occasions celebrated in the same setting (recent funerals will have encountered the same landscape but crucially they involved a different set of activities). The parallels between the annual renewal of the living environment and the renewal of family ties with the deceased that were embodied within this celebration of continuity and bridging between past, present, and future, would therefore have been especially powerful for creating an ‘in the moment’ sense of place and understanding of the world and one’s role in it. In this way, although the built environment of the cemetery
contributed to the production and experience of place by materially signalling the presence of the dead, and by embodying its primary function, it did not act alone. Monuments and tombs combined with the actions of mourners and the temporal dynamism of the ecological environment in order to produce a place—and consequent understandings of that place—which served to reaffirm the purpose of the festival as a means of perpetually renewing the relationship between living and dead and, therefore, also a confirmation of shared knowledge concerning the means by which order and stability was achieved in the world more broadly. At the same time, the stable predictability embodied by the stone memorials perhaps became entangled with the variability of the natural environment in other interesting ways. Whilst the fixity of the monuments and their epitaphs stressed order and provided a reassuring atmosphere of perpetual continuity, the planty elements of the cemetery introduced into that sphere more uncomfortable questions about vulnerability and flux: a fallen tree or a grave overrun with weeds might remind the participant of their inability to fully control the world, and maybe also their position in it. This example therefore exemplifies the complexities of the production of place as the fluid product of a coalescence, or assemblage, of agents: human bodies performing discrete activities which conform to certain shared forms of knowledge and expectations, the material world—including its non-human agents—, and time.

Whilst the built environment remained largely unchanged, aside from the construction of new tombs, the temporally specific sense of place that was created each year by the events of the Parentalia, in conjunction with the planty agency inherent within the wider environment, will have been subtly different from that experienced during different festivals celebrated in the necropolis, such as the late spring Rosalia (23 May) during which tombs were adorned with roses (Hope 2009: 99), and other occasions on which celebrations and commemorative activities occurred at the site of burial. Indeed, on the occasion of the Rosalia, and the potentially similar Violaria (22 March), flowers were actively used as part of the activities and, in turn, exercised their ‘capacity to engender affective and emotional responses’ (Jones and Cloke 2008: 81) to create a new sense of place through the adornment of tombs and monuments with roses and violets. Consequently, these festival events not only actively produced a new material place, through the conscious introduction of planty agents, but they were also instrumental for the construction of a particular sensory experience of that moment, combining to produce another related, but different place.

The agentive capacities of material things ‘exist independently of human interpretation of them’ (Strang 2014: 166), although to be affective and, even more importantly, to have cultural significance, planty agency depends upon the presence of humans and other agents (such as animals) who can perceive and respond to it. The upshot of this is that the subtle and comparatively slow seasonal changes to the trees and plants of the cemetery may have gone largely unnoticed on a daily basis, including by those who regularly passed through the cemetery as part of their everyday business (see Pitt 2015 for discussion of the pace of planty agency). However, the significance of this perpetual agency could come to the fore on particular occasions when the cemetery effectively appeared to have spontaneously changed its form. The differences described above would therefore be especially apparent and meaningful to those who frequented the necropolis sporadically, perhaps visiting for special events such as the Parentalia or Rosalia, or occasional funerals. Returning for a funeral a few weeks or months after celebrating the Parentalia, a person might become aware of an increase in leaf cover and its now welcome shade, the appearance of buds or flowers, the sound of birdsong or return of bees, the growth of new grass over a grave that had been freshly dug at the time of the previous visit, fallen branches, or the concerted invasion of weeds in untended plots. As a result, even repeated annual performances of the same activities, by the same people, at the same location, had the capacity to produce a subtly different and temporally-specific sense of place, and this was as much a product of the planty agency inherent within the wider ecological environment as it was the bodies, minds, and actions of human participants. Changing seasons and an ever-dynamic natural environment could thus result in the production of subtly nuanced time-space events which were translated into a highly specific understanding of the cemetery. These understandings—perhaps unique to individuals, families, or to other discrete communities—belonged to a precise moment or activity, and although they may have resonated during subsequent visits to the cemetery (or indeed to other cemeteries), they ultimately led to the production of a series of overlapping, intersecting, and competing places connected with the same physical geospatial location.

**Conclusion**

This paper has explored the impact of the natural environment on the production of ephemeral senses of place in the Roman cemetery, focusing on issues of temporality and sensory perception in order to argue that just as place was itself always in the process of becoming, so too were many of the elements which produced it. What emerges is a new appreciation of the active role played by highly dynamic more-than-human
agents in the process through which continually changing experiences of place were produced in the Roman world. Not only could planty agency be fundamental to the creation of senses of place (in every meaning of the phrase), but its inherent vitality and perpetually shifting material and sensory affordances also enabled place to assume certain characteristics at different moments in time. In turn, these became entangled with the embodied experiences, memories, and shared knowledge of the people who encountered them. The examination of the ecological environment presented here, and especially its assessment of planty agency, therefore validates the need to broaden existing understandings of the ways in which place was (and is) constructed. Indeed, it demonstrates that interpretations of the past need not always place autonomous human agency at the forefront of investigation in order to say something meaningful about how humans produce, experience, and interact with their social, cultural, and material worlds.

This consideration of the affective agency of the more-than-human material world, especially its own capacity for change, consequently speaks to wider debates within archaeological theory concerning humanism and posthumanism, as well as the ways in which humans and non-humans combine in order to produce social and cultural entities and identities. Through the example of the Pompeian cemetery, this paper has sought to demonstrate the value of adopting these, often complex, ways of thinking for re-evaluating apparently familiar Roman contexts and materials. The approach adopted here to seeking, recognising, and considering the impact of planty agency might be extended to a reassessment of other ancient settings, including the sacred grove of Dea Dia at Rome, but also to experiences of the varied non-urban ecological environments of the Roman world. Such an approach offers opportunities to pose new questions about how a diversity of lived experiences produced in relation to varied ecological conditions might generate particularly localised or temporarily specific forms of knowledge, identities, and senses of place.

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Competing Interests
The author has no competing interests to declare.

Abbreviations

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References

**Ancient Sources**


**Modern Sources**


