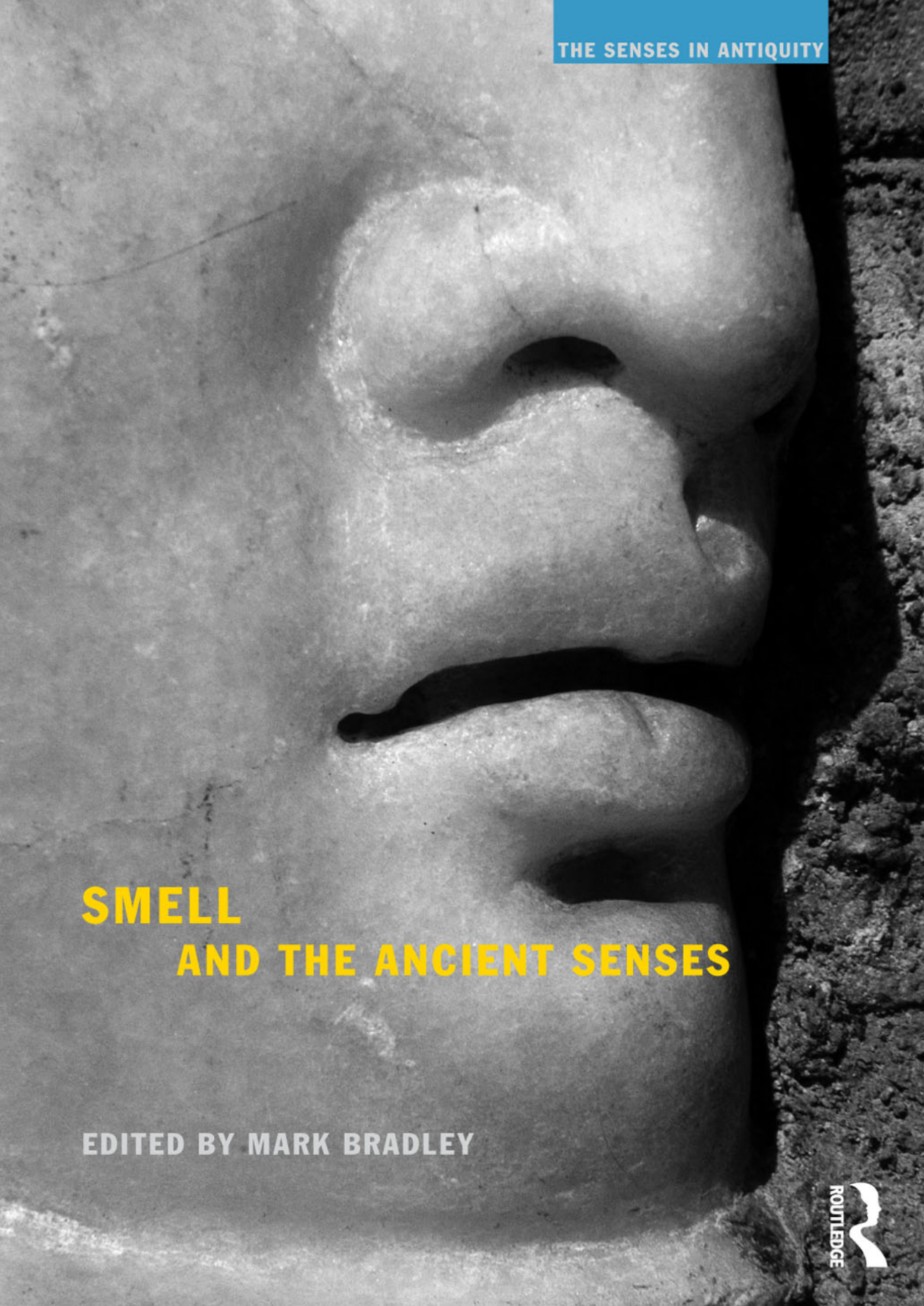
THE SENSES IN ANTIQUITY



SMELL
AND THE ANCIENT SENSES

EDITED BY MARK BRADLEY

ROUTLEDGE

SMELL AND THE ANCIENT SENSES

From flowers and perfumes to urban sanitation and personal hygiene, smell – a sense that is simultaneously sublime and animalistic – has played a pivotal role in western culture and thought. Greek and Roman writers and thinkers lost no opportunity to connect the smells that bombarded their senses to the social, political and cultural status of the individuals and environments that they encountered: godly incense and burning sacrifices, seductive scents, aromatic cuisines, stinking bodies, pungent farmyards and festering back-streets.

The cultural study of smell has largely focused on pollution, transgression and propriety, but the olfactory sense came into play in a wide range of domains and activities: ancient medicine and philosophy, religion, botany and natural history, erotic literature, urban planning, dining, satire and comedy – where odours, aromas, scents and stenches were rich and versatile components of the ancient sensorium. The first comprehensive introduction to the role of smell in the history, literature and society of classical antiquity, *Smell and the Ancient Senses* explores and probes the ways that the olfactory sense can contribute to our perceptions of ancient life, behaviour, identity and morality.

Mark Bradley is Associate Professor of Ancient History at the University of Nottingham.

THE SENSES IN ANTIQUITY

Series Editors: Mark Bradley, University of Nottingham, and
Shane Butler, University of Bristol

Like us, ancient Greeks and Romans came to know and understand their world through their senses. Yet it has long been recognized that the world the ancients perceived, and the senses through which they channelled this information, could operate differently from the patterns and processes of perception in the modern world. This series explores the relationship between perception, knowledge and understanding in the literature, philosophy, history, language and culture of ancient Greece and Rome.

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SMELL AND THE ANCIENT SENSES

Edited by
Mark Bradley

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FOR CARL BUCKLAND

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INTRODUCTION: SMELL AND THE ANCIENT SENSES

Mark Bradley

On 1 April 2008, Google launched a beta version of "Google Nose", which claimed to take advantage of cutting-edge technology built into existing computers, phones and devices in order to find and emit smells across the full range of olfactory experiences.[1] It boasted a "mobile aroma indexing programme"; a "Google Aromabase" with over 15 million "scentibytes"; a set of "knowledge graphs" associating aromas with images and descriptions; a "Don't ask, don't smell" SafeSearch option; links to "Foodles" and "Scratch 'n' Sniff" books; and unique IT accessories, such as a device that would allow cars to drive themselves based on environmental smells. As an alluring example of familiar olfaction, the homepage advertised "wet dog", "aggressive and foxy with notes of musk [and] wet towel", with the facility to emit a "smell and share aroma". The introductory video promoted the advantages of alternative ways of sensing the world other than vision, and flagged up the role of smell in allowing animals to derive information about their environment. The result: "smells are just a click away"; if you want to find out what a new car or the inside of an Egyptian tomb smells like, "Google Nose".

This was not the first April Fool gag claiming to offer smells through the screen: in April 1965, BBC TV aired an interview with an entrepreneur who claimed to have invented "Smell-O-Vision", a new technology that allowed viewers at home to experience the same aromas that were emitted in the television studio, and a number of viewers phoned in to confirm that they had indeed detected through their television sets the chopped onions and freshly brewed coffee that they saw on the screen.[2] But such olfactory technology is not just the province of fantasy and humour: the use of scents alongside film projection is documented as far back as the beginning of the twentieth century, and contemporary cinemas have experimented with spraying perfumes over the audience or releasing them from vents beneath their seats. In the late 1950s, AromaRama stepped up the game, in competition with another American film producer ("the battle of the smellies", as it was described at the time), and released the travelogue *Behind the Great Wall* (1959), performances of which emitted over a hundred different aromas into the air through the cinema air-conditioning system, including grass, exploding firecrackers, incense, horses and so on. Reviews were largely scathing, and the film's

1 www.google.com/landing/nose/ (accessed June 2014).
2 Further, see Banes (2001).

olfactory accompaniments were described in *The New York Times* and elsewhere as a "stunt" with absolutely no artistic benefit and imprecise, capricious and banal odours; an extraordinary waste of money; or a weak, ill-fitting distraction with hissing vapours and audience members sniffing loudly to detect the aromas.[3] Others were more positive: "You've got to breathe it to believe it" (as *The World Telegram Sun* put it), but "Smell-O-Vision" was listed among the "Top 100 Worst Ideas of All Time" in *Time Magazine* in 2000. Nonetheless, the underlying idea has not been abandoned: film producers since have experimented with scratch-and-sniff cards that audience members could use during the movie, aromas (good and bad) are now a familiar feature of Disney attractions in American theme parks and in the early years of the twenty-first century there have been renewed efforts in "Smell-O-Vision" by American, Japanese and Norwegian filmmakers and advertisers.[4] In addition, a number of Japanese companies are developing research into what has been termed "digital scent technology" to bring smells to accompany web pages, video games and music.

In fact, efforts to integrate smells into visual performances had already been mobilized in Greco-Roman theatre some two millennia earlier. Greek drama was typically staged in the context of religious festivals, and some plays exploited the olfactory experiences of sacrifice, smoke, libations and feasting into their content.[5] From the Hellenistic period onward, scents and perfumes were sometimes integrated into dramatic performances, and writers such as Ovid and Apuleius describe the ingenuities of engineering in contemporary theatre which might include features like a fine saffron mist sprayed over the audience.[6] Such dramatic developments had their critics: Aristotle and Horace, among others, denounced the sensationalism of contemporary theatre, which distracted the audience from what really mattered, a response not dissimilar to that elicited by the 1950s AromaRama technology, and which contributed nothing to the accurate understanding of the events that unfolded before their eyes.[7] And even though the prospect of reaching a heightened sense of smell in the experience of performance art has always tantalized audiences (and continues to do so), perhaps precisely because smell is so difficult to control, define and describe, and also because – as Google Nose so succinctly reminds us – olfaction is the proper domain of animals rather than humans, efforts to integrate aromatics into performance have met with frustration and disappointment. Perhaps for this same reason, the study of smell in historical cultures, where the immediate sensible experience of those times has long since evaporated and has seldom been captured and recorded coherently by contemporary perceivers, remains (alongside taste, touch and even hearing) comparatively neglected in the scholarship. This volume, then, does not make any pretences to rediscover uncharted sensory landscapes: one of the most interesting things about smell is its very

3 Crowther, B. (December 10, 1959) "Movie review: *Behind the Great Wall* (1959) – Smells of China; 'Behind the Great Wall' uses AromaRama". *The New York Times* (accessed at www.nytimes.com, June 2014).

4 The animated sitcom *Futurama*, set in the year 3000 CE, satirizes the fad for Smell-O-Vision: the movie actor Harold Zoid claims that his career crashed after the invention of 'Smell-O-Vision', and another episode begins with the instruction "Smell-O-Vision users insert tubes into nostrils now". In general, see Paterson (2006), especially 360.

5 For details and references, see Bradley (2014: 202–4).

6 Bradley (2014: 204); Ovid, *Ars Amatoria* 1.101–10; Apuleius, *Metamorphoses* 10.34. See also Denard (2007: 154–56); cf. Beacham (2007: 202–4 and 218–23) on the Theatre of Pompey.

7 Aristotle, *Poetics* 6.28; cf. 14.1–5; Horace, *Epistles* 2.182–207.

transitoriness and elision from the record, as well as its ambiguities and complexities. But one of its main objectives is to reveal a world of sensory experience that has been subdued by an emphasis on words and artefacts that are normally surveyed only by the eyes. The vocabulary of smell, in Greco-Roman antiquity as in any human culture, is limited, imprecise and elusive, but this makes olfaction a sense that is heavily subjective and packaged by culture, and it is this cultural packaging, cutting across a wide range of classical domains, activities and genres, that can provide a stimulating new perspective on the values and principles of the ancient world.

Defining noses

> *mihi anima in naso esse*
> My soul was in my nose / My heart was in my mouth
>
> Petronius, *Satyricon* 62.5[8]

The ancients believed that when a person died, their soul (*anima*) passed out of the body through an opening in the head, and so the Latin phrase *mihi anima in naso esse* could be used to describe a state of almost being scared to death, as was this particular protagonist in Petronius' *Satyricon* when he watched someone change into a werewolf.[9] Petronius' idiom, which was almost certainly a commonplace, alludes to a tradition whereby the nostrils functioned as a channel for the inspiration and expiration of life, which could be represented as breath or the passage of air. The very untranslateability of the idiom into terms that make sense in English suggests that the ancient nose was sometimes perceived as a gateway to the soul, and the function and properties of the smell-organ as a conduit between the inner body and the outside world merit some attention. *What is a nose?* we might well ask. It is evident that the Greek *rhis* and Latin *nasus* (as well as *muktēr* and *nares*) do not correspond straightforwardly to the English "nose", but in fact extend down into the throat and back into the ear-canal, the eyes and the brain.[10] The Roman medical writer Celsus, writing in the first century CE for a lay audience, described the physiology of the nose and its relationship to the surrounding anatomy of the head: "from the nose, one passageway leading to the throat receives and returns breath (*spiritus*), another stretches backwards to the brain and in its final section is split up into many narrow channels (*foramina*), through which we gain our sense of smell (*sensus odoris*)" (*On Medicine* 8.1.5–6). The Greek and Roman "nose", as well as operating as the organ of smell, was also a means of expressing scorn, as well as sharp wit, and was therefore a channel for visual communication as well as a measure of disgust.[11] The ancients devoted a great deal of scholarly energy – particularly in the genre of physiognomy, biography and satire – to establishing correlations between nose shape and

8 All translations are my own, unless otherwise stated.

9 See Castelli (1997) and Schmeling (2011: 257) on this expression; cf. also *Carmina Anacreonta* 31.7–8 κραδίη δὲ ῥινὸς ἄχρις ἀνέβαινε; cf. Lucilius, *Satires* 20.607–8 *eduxique animam in primoribus oribus naris* ([I found fault with the savage law of Calpurnius] and snorted breath through the nostrils at the tip of my nose).

10 Further on the complexities of the ancient smell organ, see Totelin, this volume, pp. 18–21.

11 For an example of this, see Clements (2013). See Horace, *Satires* 1.6.5–6 on the idea of "turning up your nose" at people (*naso suspendis adunco/ignotos*). For further references, see *Thesaurus Linguae Graecae* s.v. ῥίς; *Oxford Latin Dictionary* s.v. *nasus* 1c and 2.

nose size (focusing particularly on the distinction between hooked and snub noses) and aspects of character and behaviour, and these patterns also found expression in classical figural art.[12] One of antiquity's most striking noses belonged to Socrates: contemporary philosophy, literature and sculpture exploited to the full his unusual snub nose and facial features that resembled those of the bestial satyrs. Defending his appearance to Critias in Xenophon's *Symposium* (5.6), Socrates argued "My nose is the finer, because the gods gave us noses to smell with (*osphrainesthai*) and while your nostrils look down toward the ground, mine are wide open and turned outward so that I can catch scents from all around". Olfactory stimuli could sometimes be tactile in nature, touching the nose and the body within: in the *Iliad* (19.37–39), for example, Thetis spreads ambrosia and nectar through the dead Patroclus' nostrils as an embalming substance to prevent his flesh from decay, and at 23.777 Ajax's nostrils and mouth are filled with the suffocating offal of sacrificial bulls when he is made to fall during the games. There is also some evidence that pouring noxious substances like vinegar or pepper into the nose was not uncommon as a form of torture.[13] The nose was a conduit for channelling messages from the outside world to the inner brain and the humours of the body, and forms of "aromatherapy" – often with distinctly revolting recipes – were serious business in ancient medicine.[14] This could work the other way too: nasal effusions carried the humours from within into the outside world, tainting and polluting it, and ancient medical literature, as well as comedy and satire, frequently represented runny noses as a telltale sign of dysfunctional character and behaviour.[15] Ancient "smelling", then, was not straightforwardly compartmentalized in one part of the body or restricted to a single sensation, but taps into a whole range of sensory experiences that make olfaction rather more versatile and far-reaching than we might initially expect.

"[T]he sense of smell is more highly developed among savages than among civilized men".[16] Alain Corbin's provocative claim about smell was hardly a new one, and alludes to a traditional prejudice against the role and status of olfaction in civilized, and especially classical, cultures. Smell was a base, animal behaviour associated with lust, greed and sensuality: the ancients themselves were acutely aware that the smell organs of animals were keener and more discerning than those of humans, and Aristotle struggled to explain olfactory perception much more than that of the other senses, on the grounds that humans made such poor use of it.[17] It has been argued that the part of the brain that processes smell is a primitive, reptilian section that develops early, and quite separate from the brain's language centres that develop at a later stage.[18] In the field of

12 I am working on a substantial article on "Roman noses" which discusses the relationship between nose size, shape and posture and aspects of character and behaviour in the Roman world. The references are extensive: for a start, see Aristotle, *Politics* 5.1309b on hooked and snub noses as metaphors for opposite types of constitution; Pliny, *Natural History* 11.158 on the variation and significance of nose shapes in humans and animals.

13 See for example Aristophanes, *Frogs* 620. Further on noses, mutilation and torture, see Bradley and Varner, this volume.

14 For examples, see Pliny, *Natural History* 20.36; 32.46; 34.42

15 See Celsus 2.1; 6.8; Aristophanes, *Knights* 910; Epictetus, *Discourses* 1.6; Catullus 23; Plautus, *Asinaria* 4.1.51. In general, see Menninghaus (2003) 64–66 on nose disgust and the "Greek profile".

16 Corbin (1994: 6). Further on Corbin, see pp. 110ff.

17 On Aristotle and smell, see Johansen (1996). See also Baltussen, this volume, pp. 40–42.

18 Rivlin and Gravelle (1984: 88–89).

fiction, Patrick Süskind's novel *Das Parfum* (1985), set (like Corbin's seminal study of smell) in eighteenth-century France, has vividly explored what it might be like to experience the world of olfaction with the keenness of an animal, and explores both the cultural sophistication that such sensory awareness might allow (producing exquisite perfumes, for example) and the bestial sensuality to which that level of perception submits.[19] In a similar vein, ancient characters who were too absorbed with the world of smell could be compared to animals: the Roman comic playwright Plautus (*Curculio* 1.2.1–16) depicts the vile old slave-woman Leaena crawling on stage and sniffing out her wine like an animal and then, when she locates it, drawing on the grand poetic clichés of perfume comparison ("You're my myrrh, my cinnamon, my rose, my saffron, my cassia!") before an onlooker jokes "This one's like a dog – she's got a keen nose at any rate!". This separation between the civilized and the uncivilized is vindicated in this scene by the dramatic distance between the onlookers who are watching in disgust, and the old slave-woman, all nostrils and jaws, indulging in the "lower senses": as well as sniffing out the wine, she then touches (*tangere*) the bowl and tastes the liquor ("Satisfy my belly. … Down the hatch!").

The ancients recognized that a keen nose was one of the defining features of animals: animals were drawn to noxious odours, and themselves typically smelled unpleasant. Horses, bulls, dolphins and elephants did a lot with their noses, hunting dogs were celebrated in literature (often at great length) for their keen sense of smell, and humans with distorted, distended or inflated noses were frequently compared to animals.[20] The Epicurean poet Lucretius, in his extended discussion of the physics of smell (*On the Nature of Things* 4.673–705), resorts to the animal world – bees, vultures, dogs, geese, lions – to discuss the dynamics of olfaction and different patterns of perception; Aristophanes' *Peace* (lines 20–40) is one of the earliest in a long list of classical references to animals wallowing in offensive stenches; and Plutarch (*On the Eating of Meat* 11) defends Pythagoras' vegetarianism by comparing a man devouring flesh to a wild beast whose nose savours the stench and whose tongue sucks juices from wounds and sores. The elephant, the animal with the most striking nose, was a curiosity for ancient thinkers: Aristotle produced an extended discussion of the elephant's trunk, which he described as nose, hand and mouth all in one, unique among animals in its size and character; several centuries later, Aelian would return again and again to elephants in his treatise *On the Nature of Animals*, and remarked (1.38) that the elephant loved every kind of fragrance and was fascinated by the scent of perfumes and flowers, and later (9.56) that it was excellent at tracking by scent and (13.8) was drawn to sweet smells, gathering flowers to scatter around its place of rest, which would impart a sort of flavour to their food through their scent and permit a fragrant sleep.[21] Smell, then, was far from straightforward: a sophisticated command of this sense was both sublime and animalistic, and the attention it received in comedy, satire, elegy, philosophy

19 On Süskind, see Morley, this volume, p. 110. One might also compare Jonathan Swift's satirical indulgence in bodily smells in his treatise "A modest proposal" (1729).

20 On animals and smell, see Lilja (1972: 149–62). On hounds and keen noses, see Xenophon, *On Hunting* 4, 5 and 8; Plutarch, *Natural Questions* 23.

21 Aristotle, *Parts of Animals* 659a; *History of Animals* 492b13–21. See also Pliny, *Natural History* 8.9 on elephants' use of smell to dictate behaviour; 8.29 on elephants breathing, drinking and smelling with their "hand".

and biography demonstrated the currency of olfaction in classifying and evaluating the figures, environments and material culture of the classical world.

Approaches to smell

This volume, then, sets out to explore why smell occupied such a complex and controversial place in the ancient sensorium, but also aims to reinstate olfaction as a potent tool for understanding and evaluating the Greco-Roman world. Although the American poet Christopher Morley might well have wondered "Why is it that the poets tell / So little of the sense of smell?", it is clear in fact (as several chapters in this volume demonstrate) that some ancient writers seized any opportunity to use olfaction to explore the social, moral and aesthetic properties of their subjects.[22] It may be true that there was a hierarchy of literary genres in which smell occupied a greater or lesser role – biography tended to be smellier than historiography, satire more olescent than epic – but closer scrutiny demonstrates that the very baseness of smell allowed ancient perceivers to exploit this sense to conjure the basic hierarchies of the foul and the fragrant. In the early second century, the epigrammatist Martial applied great sophistication to distinguishing between bad smells and good smells. A corrupt old woman called Thais receives the brunt of the poet's sharp tongue:

> Thais smells worse than the old urine-jar of a greedy fuller, just now broken in the middle of the street, or a goat fresh from mating, or a lion's jaws, or a hide from the tanners across the Tiber torn from a dog, or a chicken that is rotting inside an aborted egg, or an amphora contaminated with putrid fish-paste. So that the crafty lady can exchange this stench for a different odour, whenever she takes her clothes off and heads for the baths, she is green with depilatory paste, or hides under a layer of vinegar and chalk, or is coated with thick bean-meal applied three or four times over. Though she thinks she is safe with her thousand tricks, when all's said and done Thais still smells of Thais. (Martial 6.93.)[23]

Here Martial evokes a range of foul smells that would be familiar to the inhabitants of early imperial Rome in order to evoke the polluted figure of Thais; try as she might to conceal her odour with her cosmetic recipes, it remains a potent telltale sign of her social status, and Martial equips his readers with a rich repertoire of olfactory associations with which to describe such a figure. But smells were not always bad, and in a different epigram Martial compares his slave-boy's morning kisses to a rich array of scents which held a position of prestige in the ancient sensorium:

> The perfume that yesterday's jars breathe from faded balsam, the last aroma that falls from the saffron spray, the scent of apples ripening in their winter tray, or of a field teeming with spring foliage, or of silks from the empress' Palatine presses, or of amber warmed in a maiden's hand, or of a jar of black Falernian wine broken, but a long way off, or of a garden that hosts Sicanian bees, or the

22 Spaeth (1922: 46).
23 Cf. epigram 4.4 for a similar evocation of bad smells, with Moreno Soldevila (2006: 114–21).

> aroma of Cosmus' alabaster boxes and the hearths of the gods, or of a garland that has just slipped off richly-kept locks – why should I single anything out? They are not enough: mix them all together. This is the fragrance of my boy's kisses in the morning. Do you want to know his name? If it's only for the kisses, I'll tell you. You swear it. You are too eager to know, Sabinus. (11.8.)[24]

Thais, then, is synecdochically foul ("Thais still smells of Thais"), and the slave-boy fragrant; as much as Martial plays on the simplicity of these extremes, he demonstrates that the educated poet can turn these basic gut instincts – disgust and lust – into complex and diverse metaphorical associations. Smell can be sophisticated. Thais' smell associations are all-invasive and overpowering, those of the slave-boy subtle, evanescent, precious and exotic. At the same time, Martial's catalogues of foul and fragrant smells betray a level of poetic desperation in capturing the instincts he is feeling: his readers all know, or can imagine, what urine jars, dog hides, lions' jaws, ripening apples, warmed amber and so on smell like, but these experiences are not quite sufficient to classify and evaluate the experiences in question. But it does not stop Martial from trying, and there is a sense that the olfactory represents for poets an enticing and elusive dimension that is beyond normal human understanding.[25] This ignorance and imprecision earned the disdain of Pliny the Elder at the start of book 13 of his *Natural History*, where, in the middle of an extended multi-book account of trees and plants and their use as scents, and after a long discussion of frankincense, myrrh and other spices, he condemns perfumes as an invention of the Persians who used it to conceal the stench of their filth (*inluvie natum virus*, 13.3); they then began to infiltrate the Greek and Roman worlds, a vast array of scents from exotic locations produced from complex recipes and costing a fortune. In typical vein, Pliny berates the fact that the perfumes most prized in Rome are produced from ingredients located at the fringes of the empire ("not one bit of this perfume ['royal scent'] is produced in Italy, the conqueror of the world, nor even within the confines of Europe", 13.18); though they are worth their weight in gold they are transitory and vanish into thin air (13.20); and they are symptomatic of contemporary decadence and luxury, particularly in the hands of depraved emperors like Caligula and Nero who would use them just about anywhere; today, Pliny complains, they make their way into the army camp and everyday habits ("By Hercules, people even add perfumes to their drinks!"); and he finishes his rant with the case of the scented Lucius Plotius, who was marked out for execution in the proscriptions of the 40s BCE and whose hiding place was given away by the smell of his perfume ("Who would not admit that such people deserve to die!", 13.25). Pliny's extended list of perfumes, a well-informed catalogue of ingredients, mixtures and recipes partly inspired by the Peripatetic philosopher Theophrastus' work dedicated to odours (*On Odours*), flags up the hybrid and exotic nature of man-made scents, both

24 For a commentary on this epigram, see Kay (1985: 81–86); see also Lilja (1972: 123–24). Cf. 3.65; 5.37.9–10 on the breath of the slave-girl Erotion. Earlier connections between pleasant smells and eroticism are drawn by Homer, *Iliad* 3.382 (Helen) and Plato, *Symposium* 196b on fragrant kisses; also numerous examples in the *Greek Anthology*, e.g. 5.305 ('In the evening a girl kissed me with moist lips. Her kiss was nectar, for her mouth carried the smell of nectar. And I am drunk on that kiss, having tasted much love'). Cf. also Catullus 99.1–2; Horace, *Odes* 1.13.15f.; Statius, *Silvae* 2.1.46; see also Lilja (1972: 120–21).

25 This is a central premise of the study by Lilja (1972).

demonstrating the richness of the Roman imperial olfactory landscape, but also parodying contemporary obsessions with perfumes that were taken completely out of place and seldom properly understood.[26] Pliny and Martial demonstrate both the sophistication of contemporary engagements with smell and the limitations of olfaction: the foul and the fragrant were evocative indices of pollution and purity in the context of the classical body, but odours themselves and even the sense of smell could be imperfect and controversial. The very fact that the world of olfaction is so subjective and unstable, that smells form (as A. Gell has put it) a "restricted language" operating somewhere between stimulus and symbol, makes it a fertile – and relatively untapped – field of study for approaching ancient society and culture.[27]

With this in mind, this volume – the second instalment in the "Senses in Antiquity" series – will concentrate on the sense that has been most closely connected in anthropological and sociological scholarship with bodily and environmental pollution, transgression and propriety. From flowers and perfumes to urban sanitation and personal hygiene, the olfactory sense has played a critical role in Western history in evaluating the moral fibre of bodies, cities and spaces, and Greek and Roman writers and thinkers lost no opportunity to reflect on the relationship between the smells that bombarded their senses and the social, political and moral status of the individuals and environments that they encountered. Unlike vision and sound, smell has attracted comparatively little scholarly attention, either in classical antiquity or in modern disciplines. According to a survey carried out in the early 1990s, smell is considered the least important sense and the one people would be most willing to lose if they had to choose, and it is perhaps for this reason that smell was, in the 1980s, perhaps the last of the senses to be the subject of comprehensive research.[28] Yet at the same time it is clear that, both in antiquity and in modernity, scents and perfumes, food and drink, bodies foul and fragrant, and urban landscapes all demonstrate a fascination with olfaction and the creative classification, interpretation and evaluation of smell to communicate information about individual and collective values. The first volume in this series, *Synaesthesia and the Ancient Senses* (2013), has already made a strong case for the integration of smell into the broader sensorium and the contribution made by olfaction to Greco-Roman literary culture: Telò and Clements explored the sophisticated means by which odours were exploited within the performance of Aristophanic comedy; Walters examined the relationship between death and sensation, including smell, in the poetry of Lucretius and Lucan; and Bradley observed how even ancient colours (stinky sea-purple dye, fragrant saffron garments, or sickly sardine-coloured skin) could be odorous. The present volume, then, is not a gesture towards olfactocentrism: as the contributions within it demonstrate, odour is intimately connected to taste and touch in a way that we might describe as "synaesthetic" (pungent food or sensual bodies), and even to sight (flowers) and sound (the clamour of industry or sacrifice). However, with the disclaimer set out by *Synaesthesia* that ancient senses should not be considered in isolation, this and the remaining volumes in the series set out to consider the role of individual senses in shaping and defining Greek and

26 On Theophrastus, see Sharples (1995: 202–8). See also Aristotle, *Problems* books 12–13 on odours, with Marenghi (1991).

27 Gell (2006: 401).

28 Synnott (1993: 183–84); Drobnick (2006: 2).

Roman experience and contributing more broadly to classical aesthetics: the tag *and the Ancient Senses* added to each of these volumes is a succinct reminder – for both authors and readers – of the collective significance of the senses as modes of communication and information. Furthermore, the present volume will complement *Synaesthesia* by further exploring how scholars and students can move beyond the dominant role of sight as an epistemological tool. Individually, it will appeal to anthropologists and sociologists and academics and students working in philosophy, psychology and the history of medicine who are concerned with human interactions with the environment and perceptions of the body; it will also be of interest to classical scholars in the field of history, literature and archaeology concerned with such themes as urban sanitation, ancient perfumes, food and drink, sexuality and personal hygiene.

This is of course not the first time that smell has been considered individually and on its own terms in a book-length treatment. It has in recent years been the subject of several important studies in the fields of sociology and cultural history. The cultural importance of smell from antiquity to the present, for example, has been examined in C. Classen, D. Howes and A. Synnott's *Aroma: the Cultural History of Smell* (1994); this book explores the significance of odours both in the Western world and in a range of non-Western societies, and proposes the contentious argument – based largely on modern concerns with the elimination of odours – that the social significance of smell (and therefore its discrimination) has deteriorated over time. Much more ambitious and concentrating on the modern West, J. Drobnick's 2006 edited volume *The Smell Culture Reader* (part of a series of anthologies published by Berg titled "Sensory Formations") considers a wide range of cultural perspectives on the role of this sense in human societies, from the segregation of diseased bodies to characteristically noxious city precincts, the memories of childhood smells, perfumes and aromatics, cooking aromas and sublime essences: this volume makes a strong statement about the *interdisciplinarity* that is integral to different olfactory experiences, which arises from the imprecision of smell vocabulary and the need for creativity and metaphor.[29] As a playful demonstration of the enigmas of smell, and not a far cry from the exercise that Pliny the Elder was carrying out, A. Le Guérer's widely read *Les pouvoirs de l'odeur* (1988) examines the use of scent in the domains of myth, religion, gender, philosophy and medicine in world cultures, and concentrates on the peculiar and surprising odours that individuals and communities have integrated into their lives.[30]

Most studies of smell, however, have concentrated on specific contexts, themes or historical periods. Adopting a more scientific approach to the senses, T. Engen has explored the role of smell in human cognition as a critical factor in how people adapt to their surroundings (*The Perception of Odors* (1982); *Odor, Sensation and Memory* (1991)): for Engen, olfactory experiences are the product of nurture and culture, not biology – odours are in and of themselves neutral, neither pleasant nor unpleasant. Recent decades have also seen a surge in biochemical and neurological studies of smell concentrating on issues such as perfume production, consumer marketing, evolutionary

29 See also the collections by Rey-Hulman and Boccara (1998) and Dulau (2004). On odours and metaphors, see Classen, Howes and Synnott (1994), especially p. 3.

30 This has been translated into several languages, and was the first of a number of studies of smell by Le Guérer. For other popular treatments, see also Glaser (2002); Burr (2002).

biology and clinical smell disorders, many of which mapped cross-disciplinary connections between history, culture and science.[31] More recently, A. Barbara and A. Perliss' *Invisible Architecture: Experiencing Places through the Sense of Smell* (2006) has examined – from the perspective of theoretical architecture – the development of the olfactory sense across the centuries and across space as a tool for recognizing, evaluating and responding to the environment.[32] A number of significant articles on smell have been published (since 2006) in the journal *Senses and Society*, which is dedicated to exploring the role of the senses in the arts and cognitive sciences. There have also been several important studies focusing on the significance of smell in specific cultures and communities: most notably, and one of the earliest forays into the olfactory, A. Corbin's *Le miasme et la jonquille: l'odorat et l'imaginaire social aux XVIIIe–XIXe siècles* (1982), discusses the history of French attitudes towards smell from the eighteenth century to the present and its relationship to various social and political developments; and recently, R. Wrigley has examined the olfactory dimensions of eighteenth- and nineteenth-century Rome from an art–historical perspective ("Making Sense of Rome", 2012).[33] Finally, it is worth noting that smell has performed a central role in the flurry of recent studies of dirt, disgust and pollution and their relationship to culture: among Mary Douglas' criteria for pollution, purity and danger or those of Julia Kristeva for identifying abjection, smell was an important component evoked to discriminate bodies that were rejected from civilized society.[34]

The significance of smell as an index of bodies and environments in Greco-Roman antiquity is much less well-developed, but is a familiar motif in popular approaches to the ancient world (from the scratch-and-sniff Oxford University Press children's books *Roman Aromas* (1997) and *Greek Grime* (1998) in the "Smelly Old History" series to inhalable museum displays of ancient perfumes or Roman daily life). Nonetheless, smell has been explored in several areas of academic scholarship: studies of urban sanitation, bodies and sexuality, ancient dining and flowers and perfumes have regularly considered olfactory approaches to the ancient world. From an archaeological perspective, L. Bartosiewicz (2003) has considered the role of smells in a range of historical periods and locations, concentrating on live animal trade, tanning, sea-purple dyeing industries and meat processing, and makes some important points about the cultural relativity of smell.[35] Elsewhere, D. Potter ("Odor and power in the Roman empire" (1999)) has connected scents to social status and economic practices in Rome from the early Empire to late antiquity, and considers some aspects of smell in early Christianity. Recently, S.A. Harvey (2006) has explored the use of smell and scent in early Christian doctrine and ritual to represent and understand the relationship between the human and divine worlds. S. Lilja surveyed a

31 See, for example, Gibbons (1986); Green (1988) on smell and cognitive psychology; Roub, Schaal, Flolley, Dubois and Gervais (2002). For further references, see Drobnick (2006: 4–5).

32 See also Dulau and Pitte (1998). See also Betts (2011) on the senses and movement in the city of Rome.

33 See Wrigley (2012) on "Making Sense of Rome"; see also Wrigley (2013: chapter 3) on the infectious air and inspiration in early modern Rome; chapter 6, especially 175–77 on smell, dirt and disease. On shifting approaches to cleanliness in France from the Middle Ages to the early modern period, see Vigarello (1988).

34 Douglas (1966); Kristeva (1982). The bibliography is extensive: see Bradley (2012). More recently, see Curtis (2013).

35 Cf. Bradley (2002) on urine and the archaeology of Roman *fullonicae* ("laundries"). See also Green (2011) on the rabbinic use of daily experience with olfaction as a means of expressing their relationship with the divine.

wide range of evidence for smells in Greek and Roman verse in *The Treatment of Odours in the Poetry of Antiquity* (1972) and has produced a valuable resource for classical scholars approaching the subject, but takes a predominantly literary and philological approach to the subject, and does not take into account broader cultural and anthropological considerations. Similarly there has been a number of important studies of ancient perfumes and aromatics, such as G. Squillace's *Il profumo nel mondo antico* (2010) and A. Dierichs and A. Siebert's *Duftnoten: was Griechen und Römern in die Nase stieg* (2006), but these have not been concerned with the wider considerations of olfaction and the history of the senses. There remains no integrated or comprehensive study of the role of smell in the ancient world, and this volume will therefore set out to identify and explore the principal domains of activity in which this sense made a substantive contribution to ancient perceptions of bodies, environments, behaviour and morality.

Volume outline

This volume is a collection of thirteen essays addressing some of the most salient aspects of smell in Greco-Roman antiquity covering approximately one thousand years of society, history and culture from Archaic Greece through to Late Antiquity. Individually, each essay demonstrates that ancient perceivers approached olfaction with a level of complexity and sophistication that rivalled that of the other senses, as well as making a unique contribution to the ancient sensorium by providing a window on to the peculiar properties of an individual or object. Collectively, the chapters demonstrate that smell performed a central function in the evaluation of personal identity and morality across many key areas of ancient life, such as medicine, philosophy, religion, food and urban design. They are structured broadly in chronological order, although each addresses a unique theme in the history of smell in the ancient world.

Following on from the brief study of the ancient nose in this introduction, the opening chapters consider two contexts in which the organ of smell was directly scrutinized and evaluated in physiology and philosophy. Totelin begins by considering the role and function of smell as an epistemological tool in ancient medicine, examining material from the Hippocratic corpus, Aristotle and Theophrastus through to Celsus, Dioscorides and Galen in the context of recent scholarly approaches to the use of senses. In particular, she focuses on the interpretation of smells related to excretions, such as stools, urine, spit and sweat, in the prognosis and diagnosis of particular states of health and ailments, where smell was used as an index of imbalances in the bodily humours. This chapter also considers ancient medical approaches to ailments affecting the nose and individuals' capacity to detect and discriminate smells in the environment – from the simple cold to more complex anosmia – and also explores the use of medical therapies employing attractive or unattractive smells to cure ailments, in particular those of the womb. In the second chapter, Baltussen explores the interpretation of smells and odours in the ancient philosophical tradition from the Presocratics onwards, the relationship of this tradition to literary and medical discourse, and the development of a hierarchy of the senses. He shows how analysis of bodily functions, particularly in Peripatetic circles, became fashionable as part of broader models of mechanistic explanations of the world, in which properties such as intensity could be linked to "particles" coming into contact with the nose via the air (or *breath*), and how these models became progressively more complex and sophisticated over time, as well as increasingly contested.

The following three chapters explore the role of scents and fragrances as positive signs in the Greco-Roman world. Clements begins by examining the relationship between scents and divine presence and shows how, from practical contexts of cultic ritual to poetic explorations of the nature of the gods, odour provides a key means through which Archaic, Classical and later Greek audiences constructed divinity and evoked, as well as invoked, divine presence. From Greek epic onwards, Clements demonstrates, the ontological ambivalence of smells provided Greek writers with a potent means by which to articulate and problematize the relation between human and divine and a useful symbolic medium for the further poetic exploration of the notion of divine corporeality in all of its ambivalence. Drawing upon the phenomenology of smell, this chapter addresses the logic of smell symbolism in a range of Greek literary and dramatic texts, and elucidates some of the epistemological and ontological problems it is used to explore. Draycott redirects attention back to the human environment by exploring the diverse ways in which flowers and herbs were utilized for their scent in the Greek and Roman world. This chapter examines the repertoire of flowers and herbs employed in gardens, houses, festivals, ritual and medical contexts and sets out to reconstruct some of the aromas they may have generated and their subsequent use as a means of regulating or transforming the aroma of spaces in the Greek and Roman world. It also examines Greek and Roman texts describing the olfactory effects of flowers and herbs, and considers the patterns and peculiarities of ancient responses to these smells, as well as the role of smells and scents in discourses about nature, rustic life, decadence and otherness. Finally, Butler pulls several of these ideas together by exploring literary approaches to one of the most famous scents of antiquity: that described as "amaracine" (linked to the herb *amarakos*/*amaracus*, "sweet marjoram"). He connects the perfume to gynaecological treatments associated with Aphrodite and derived from the same herb, enabling him to locate this scent in its traditional position on the (irresistible) female body. The chapter goes on to explore amaracine's increasing association in the minds of the educated elite with "the scent of a woman", considering the broader connections that were established between this olfactory category and the sexual/sensual aspects of congress with such bodies, including the literary tradition's allusion to what these scents were thought to be concealing, a theme to be picked up later in the volume. In sum, these three chapters develop an argument that ancient scents were much more than a straightforward product of the natural world: they were manufactured, classified and packaged within the specific cultural contexts that created them, and then subjected to sometimes very sophisticated intellectual evaluation. Ancient smells, like modern smells, were situated in the mind.

The volume then changes direction and examines contexts in which bad smells assailed ancient noses. The following two chapters concentrate on some of the most defining contexts of Roman life in which smell performed a defining role. First, Koloski-Ostrow assesses archaeological evidence for Roman urban smells in Rome, Pompeii and Ostia in the late Republic and early Empire, and examines how an understanding of these smells can shape our perception of Roman streets, public spaces and private dwellings. This chapter first considers aspects of the personal hygiene of the city's inhabitants, and then extends this to consider the various institutions and structures of the city: streets, shops, tenement buildings, amphitheatres, public baths, toilets and so on, as well as urban phenomena such as crowds, festivals and animals. This chapter also explores some aspects of the relationship between urban odours and smells associated

with the countryside. While Koloski-Ostrow represents the traditional view that the ancient city must have been (to our own noses at least) a smelly, noxious and unpleasant environment to inhabit, the next chapter proceeds by setting out an alternative argument that these same olfactory stimuli could be recalibrated, normalized, ignored or repackaged. Here, Morley extends the focus on to the broader urban environment of imperial Rome and explores the relationship forged between cities and noxious odours, and the associations of these smells with dirt and disease. The chapter begins with a survey of what we know from literary and legal evidence of the main sources of urban smells and their likely effects: the organization and efficiency of the processes for disposal of different sorts of waste; the location of especially smelly activities like fulling, tanning and the slaughter of animals; the prevalence of different diseases; and the practices of personal hygiene. In considering how this environment may have been experienced by its inhabitants, Morley engages not only with literary descriptions of urban smells and the role of olfactory offence in various legal texts regulating the life of the city, but also with the physiology of smell and the capacity of the sense to adjust to its immediate circumstances, and highlights the limitations of modes of historical enquiry that attempt to reconstruct the sensorium of the past.

The next two chapters examine two contexts in which odours could be calibrated positively and negatively to represent a range of Roman social values. Potter examines the smells of dining and how the scents of cooking and food presentation in Roman elite culture communicated important social messages about the sophistication of a host and the place he fashioned for himself, as well as operating as a sign of moral degeneracy. This chapter picks up ideas explored earlier in the volume about divine scents (roasting meats over an open fire reminiscent of sacrificial smells) as well as negative associations with decadence in imperial Rome (spices and exotic meats associated with the corrupt East). It examines evidence for the smells of the Roman banquet, considered against the background of what was believed to be the cuisine of Homeric heroes – the starting point for the ancient world's longest discussions of dining – and identifies the principal aromas that characterized the rich banquets of the wealthy elite. It also sets out to connect these aromas to perceptions about social status, morality and political discourses, as well as the figure of the dining emperor. Next, Bradley's chapter explores the odours and stenches of the human body, focusing on Roman satirical texts, Latin elegy and epigrams, biography and historiography. It considers the association of foul body odours with immoral behaviour, political corruption and marginal identities, and explores the relationship perceived by Roman thinkers between smells and sexual activity, lifestyle and social and economic status. It examines the relationship between bad smells and obscene habits, the olfactory stigma attached to foul professions like prostitution and fulling, and finishes by exploring how smell has been used to characterize imperial bodies and the regimes that they governed.

The final pair of chapters considers the role of smell in the construction of religious alterities in Jewish and early Christian rituals and doctrines. First, Green shifts the focus on to the external subject populations of the Roman empire by exploring the role of fragrance in rabbinic literature in Palestine in late antiquity, and its role in calibrating the relationship between Jewish culture and Rome. Green focuses on the hostile literature that emerged in Palestine from the fourth century onwards; although Romans throughout the empire (including the rabbis) had the same habits, the rabbis

characterized the Roman hegemony as sexually degenerate idol worshippers and representatives of wanton excess, particularly in its use of perfume and incense. This chapter reviews the rabbinic literature concerning olfaction, spices, perfume and incense; briefly assesses the archaeological evidence for Jewish use of fragrance in the Galilee region of Palestine in the late Roman and early Byzantine periods; and discusses how lighting incense after dinner may have transitioned into the sniffing of spices at the conclusion of the Sabbath. In the next chapter, Toner explores the impact of Christianity on the classification, discussion and evaluation of smells and demonstrates that Christianity introduced various innovative ways of using and representing the senses, and its own particular set of odours. Whether it was the use of scents as part of their rituals and processions, the foul stench cultivated by later ascetic holy men, or the imagined fragrance of the afterlife, smell lay at the heart of how Christians defined themselves and the structure of their communities. Extending the arguments laid out by Green, Toner demonstrates that many of these practices and ideas were influenced by pre-existing notions from the pagan and Jewish worlds. In part this represented an attempt to adopt a more readily accessible, popular language, which would help spread the word and encourage conversion, but the chapter also explores how smell also played an important role in helping Christians define what they were not, by differentiating themselves from the pre-existing religions they sought to replace and the luxury, vice and immorality that these religions represented. This chapter argues that smell and sensuality became important as a conduit through which Christian divine power could be created and transmitted, and a means of communication between mortal and immortal.

The short closing chapter by Bradley and Varner, setting a pattern around sense-deprivation that will be picked up in later volumes in this series, examines the pervasive phenomenon of nose-mutilation across the Greco-Roman world, concentrating in particular on the significance of noses on Roman imperial sculpture, their obliteration in acts of deliberate vandalism, and the relationship of this act to real-life *rhinokopia* (nose-chopping) which is evident throughout antiquity. This chapter establishes certain connections between nose-mutilation and the disempowerment implied by the deprivation of the senses, and picks up themes explored in the introduction by examining the broader significance of the smell organ within Roman visual culture.

Smell and the Ancient Senses does not claim to be an exhaustive study of olfaction in the ancient world, and there are many other approaches, contexts, themes and questions that could be addressed, but we hope that the volume will serve as a platform for the development of new research questions and further lines of enquiry. What follows is a collection of essays that explore the significance of smell in the context of ancient medicine, philosophy, religion, politics, urban topography and private life, and which examine many different types of literary and material evidence for smell. We therefore make no apologies for the lack of a consistent and sustained interpretation of smell across these classical domains: the very subjectivity and malleability of smell, and the complexities and challenges involved in identifying, classifying and describing it, make its varied and elusive character one of the volume's most significant and striking motifs. That said, we will close this introduction by flagging up some of the patterns and themes that we have observed in our synergies and collaborations in producing this volume, and which we hope will be useful in informing historical approaches to smell in the future.

First of all, ancient thinkers – like us – considered smell to be subordinate to sight and sound (Totelin on medical approaches), and even supplementary (Baltussen on

philosophy). Odours tended to be simplified into the binary categories of pleasant/unpleasant or sweet/foul, whether in medical diagnosis, philosophical speculation, culinary appreciation, sexual encounters or Christian invective against foul pagans: roses always smelled good, excrement bad, and smells therefore were often a useful moral index of purity and danger. In reality, of course, ancient smells were much messier. Like us, Greeks and Romans struggled to discriminate and describe smells due to the perceived bluntness of the senses or the paucity and imprecision of ancient smell vocabulary, a limitation that was recognized in medical and philosophical circles, and which was manifested through the prevailing use of metaphor and comparison, and perhaps also by the relative absence of smell descriptors in surviving literature. The problems posed by imprecise smell vocabulary were also compounded by acute difficulties in translation, as Butler's chapter demonstrates with his study of the scent of amaracine, and in scholarly reliance on conjecture for the reconstruction of smells, as Koloski-Ostrow and Morley flag in their differing approaches to the Roman urban environment. Connected to this question of the reliability of smell, ancient thinkers were concerned with the relationship between the sense organ and the sense object, as well as that between smell and the brain, and an enduring question was posed about how far olfaction was an accurate and appropriate route to knowledge and understanding: to what extent did smell reside in the mind? Part of this concern focuses on the idea that smell was the proper domain of animals rather than humans (see above pp. 4–6): for example, ancient doctors sometimes connected the leaky, stinking bodies of menstruating women to the idea that the womb was like an animal, sniffing out foul odours and itself reeking like an animal (see Totelin, pp. 27–28), and animal indulgence in smells was frequently connected to bestial gluttony. At the same time, as explored by Clements, Green and Toner, a line of thought developed claiming that lucid olfaction was a divine prerogative: to "know the truth by smelling, by breathing", as it is put in the Book of Isaiah, not just by seeing and hearing, was a mark of the gods.

There was a recurring idea that smells were intimately connected, substantially and mechanically, to the objects or phenomena that produced them: they could be a manifestation of disease, and unbalanced humours, and themselves infectious and miasmic (Totelin); they were sensory expressions of plants, herbs or spices which could be ingested into the body (Draycott, Potter); they were an expression of internal corruption when expelled from the body's orifices (Bradley); or they could be a mark of a blessed body (see Toner on burning Christian martyrs smelling like incense). One consequence of this close relationship between object and smell is that smelling was an inherently synaesthetic experience: linked to humidity and dryness (Totelin, Baltussen); a component of the interstitial nature of phenomena such as sacrificial smoke (Clements); or the flavours of food (Potter). Because odours so often stemmed from perfumes and spices, an association also developed (particularly as part of a discourse about Roman imperial hegemony and cornucopia) between scents, luxury and the exotic: such smells could be intoxicating and dangerous, leading individuals astray and symptomatic of entrapment, decadence and immorality, and there was a general preference for simple, natural scents over complex blends, although perfumation was sometimes represented positively as a form of human control over the natural world. One of the overarching tensions about the use of scents concerned the question of what underlying odour they were setting out to conceal and how they formed part of an artificial process of seduction for the unwitting sniffer (Butler, Bradley). Positive odours in ancient thought tended to be those that

had some form of utility, such as therapeutic scents (Draycott). Furthermore, as Koloski-Ostrow demonstrates, it is evident that smells sometimes performed a utilitarian role in dictating urban activities and organization, and (as Toner discusses) they could be a useful telltale signal of rites of passage: birth, marriage, sickness and death. And because smells were transmitted through the air, they were connected to ancient concepts of breath and wind, whether divine auras (Clements, Toner) or the foul breath of polluted bodies (Bradley). For this same reason, and because they were normally invisible, the very elusiveness of smells evoked an association with the divine, becoming, as Toner puts it, "a dialogic exchange between human and God".

One consequence of the localization of smells was the idea that different spaces in the ancient world developed their own "signature smells" or "smellscapes": religious precincts with their telltale whiff of incense and burning sacrifices; the pungent smells of the countryside; industrial and commercial zones characterized by the smells of laundries, bakers, fish markets; the aromas of the dining room; and so on. But smells were not just static, objective components of the ancient environment: as Morley and Bradley argue, processes of olfactory adaptation or "habituation" almost certainly permitted ancients to overlook or normalize the smells around them, which over time inevitably ceased to be perceived as a novelty or a threat. But smells were also in part a construct of the mind and the literary imagination, and in turn participated in structuring the experiences of ancient observers and readers of texts. It is perhaps because of this idea of olfactory artistry that a clear literary bias emerges in the surviving evidence, where creative verse is far more concerned with smells than objective prose, and where certain genres such as comedy, satire and biography direct the reader's attention to smell more cogently than rhetoric or historiography: it is no accident that Homeric ecphrasis and the satires of Martial are such recurrent sources of inspiration for this volume. Finally, as Morley and Potter remind us, it is important to remember that this leaves us with a striking class prejudice in our windows on to olfaction: our ancient "smellscapes" are the product of the highly educated literate elite of antiquity, and what the masses who swarmed to the Athenian Acropolis or the plebeian crowds in the Roman Forum thought and felt of the smells they encountered has long since evaporated from the records.

1

SMELL AS SIGN AND CURE IN ANCIENT MEDICINE

Laurence Totelin[1]

Introduction

> Pleasure and pain are inherent in all senses, but clearly not in equal proportions: it is least in that of sight; most in that of touch and taste; and next to these, in smell; and after these in hearing.[2]

Galen (129–218 CE), the prolific physician from Pergamum, ranked smell third in his classification of the senses.[3] In a medical context, with its various uses and meanings, smell brought pleasure and displeasure in the same degree. On the one hand, sweet scents made medicaments more pleasant; smelling substances (both sweet-scented and fetid) could bring healing; and offensive bodily odours could help detect illnesses. On the other hand, bad smells, such as those of coals that have gone out, could cause suffocation;[4] and they could even cause diseases, as suggested by the author of the Hippocratic treatise *Affections*:

> Bile and phlegm produce diseases when, in the body, one of them becomes too wet, too dry, too hot or too cold. Phlegm and bile change in these ways from

1 Unless stated otherwise, all translations are the author's own.

2 Galen, *De symptomatum causis* 1.6 (7.115 Kühn). A translation of this text is available in Johnston (2006). It is conventional to refer to most ancient medical texts by giving the name of the editor (here Kühn), the volume in which the text is to be found (here 7) and the page at which the passage is to be found (here 115). I have always referred to the Littré edition of the Hippocratic texts and the Kühn edition of the Galenic texts, freely available online: "Bibliothèque numérique Medic@", www.bium.univ-paris5.fr/histmed/medica.htm (accessed June 2014), as well as mentioning newer editions when available. The abbreviations CMG and CML refer to the Corpus Medicorum Graecorum and Corpus Medicorum Latinorum respectively. These are also freely available online: "Corpus Medicorum Graecorum/Latinorum", http://cmg.bbaw.de/epubl/online/editionen.html (accessed June 2014). The abbreviation CUF refers to the Collection des Universités de France. I have also listed translations of medical texts when available separately from text editions. On lists of the senses in ancient medical texts, see Jouanna (2003).

3 Information on most medical writers mentioned in this chapter can be found in Keyser and Irby-Massie (2008). For a general introduction to ancient medicine, see Nutton (2013).

4 Coals: Galen, *De utilitate respirationis* 4.4 (112 Furley & Wilkie; 4.496 Kühn). See Debru (1996): 232. In Oribasius, *Collectiones medicae* 9.18.1 (CMG 6.1.2, p. 17 Raeder) the smell of extinguished coals is a sign that a place produces dangerous exhalations. For more on coals, see below.

> foods and drinks, from toils and wounds, from smell (ἀπὸ ὀσμῆς) and sexual intercourse, and from heat and cold.[5]

Smells, alongside other factors, could disrupt the delicate balance of humours in the body, thus bringing diseases.[6] They could also cause a pestilence, if we interpret references to *miasmata* in the Hippocratic Corpus, such as the following, as allusions to fetid rising smell:

> When the air is full of *miasmata*, which are hostile to human nature, this is when men become ill.[7]

Galen too on occasions gives smells as a cause of disease: "it is dangerous to spend one's day with those afflicted with phthisis, and generally those who exhale such putrid humours that the houses in which they lie in bed become stinky (δυσώδεις)", thus hinting at some process of contagion.[8]

This chapter considers the roles and functions of smell in ancient medicine, examining material from the Hippocratic Corpus (a collection of texts, composed for the most part to the fifth and fourth centuries BCE) through to Celsus (Aulus Aurelius Celsus, beginning of the first century CE), Dioscorides of Anazarbus (first century CE) and Galen. Like the philosophers, medical authors (who often considered themselves philosophers) puzzled over the sense of smell, which was so difficult to locate in a specific part of the body, and over the ineffability of smells, easily perceived but impossible to describe. Here, I will first examine theories of smelling expounded in medical writing, in particular in Galen's *On the Organ of Smell*.[9] I will then turn to ancient medical approaches to ailments affecting individuals' capacity to detect and discriminate smells in the environment, from the simple headache to more complex "smell paralyses". I will then study the role of the olfactory sense in medical epistemology, that is, the interpretation of smells (of stools, urine, spit, sweat and so on) in the prognostic and diagnostic of particular states of health and disease: the use of smell as markers of imbalances in bodily humours. Finally, I will describe the use of medical therapies employing smell – pleasant or repelling – to cure ailments, in particular those of the womb.

Theories of smelling and diseases affecting smell

There was some debate among ancient medical writers as to the organ of smell, that is, the organ with the sensory capacity for perceiving smell. Was it the nose or was it the brain? According to the author of the Hippocratic treatise *Flesh*, the brain was that

5 Hippocratic Corpus, *De affectionibus* 1 (Loeb 5.6 Potter; 6.208 Littré).

6 The "canonical" four humours (bile, phlegm, black and yellow bile) only became so in later antiquity, under the influence of Galen (see Nutton 2005). In the Hippocratic Corpus, the number of humours is not fixed. For the author of *Affections*, there are only two humours: bile and phlegm.

7 Hippocratic Corpus, *De flatibus* 5 (CUF 5.1, p. 108 Jouanna; 6.98 Littré). See Jouanna (2001) for an overview on *miasma* in ancient medicine. On *miasma* in Greek culture more generally, see Parker (1983).

8 Galen, *De differentiis febrium* 1.3 (7.279 Kühn). See Debru (1996: 235–38), and more generally on contagion, Nutton (1983).

9 Galen, *De instrumento odoratus* 4 (CMG suppl. 5 Kollesh, 2.857–86 Kühn). An English translation of this text is available, although it must be used with caution: Wright (1924).

organ: it spread as far as the nasal cavities, being separated from the nose only by a "soft cartilage, similar to a sponge, neither flesh nor bone" (called in later antiquity "ethmoid bone"). By virtue of being wet, the brain perceives dry smells through dry tubes (this is the principle whereby opposites attract opposites, *contraria contrariis*). The drier the nasal cavities are, the better the perception of dry smells, and vice versa. And since the brain is not as wet as water, it cannot distinguish the smell of water, unless it is putrid.[10]

Another Hippocratic author, that of *Places in Man*, appears to imply that the brain is involved in smelling. For he argued that, whereas there is a perforation through the membrane enclosing the brain in the cases of the ears,

> at the nostrils there is no such opening but a soft area, like sponges. For this reason we hear over a greater distance than we smell. For an odour is dispersed far from the sense of smell [translation: Craik].[11]

The author may here have attempted to explain in anatomical terms why humans have a weak sense of smell compared to other animals, a fact stated explicitly by the philosopher Theophrastus (c. 340–287/6 BCE) in his text *On Odours* (on philosophers and the sense of smell, see Baltussen in this volume).[12]

These Hippocratic theories recall that of the Presocratic philosopher Alcmaeon (fifth century BCE), who, according to Theophrastus, suggested that "smelling occurs by drawing in the breath (*pneuma*) to the brain through the nostrils at the same time as breathing".[13] As shown by Geoffrey Lloyd (1975: 122), such theories did not require the use of dissection (which was not practised in the classical period), as a probe would have been sufficient to come into contact with the ethmoid bone.[14] Better anatomical knowledge gained through dissection in Hellenistic Alexandria, however, did not lead to unified theories of smelling among medical authors. Thus, on the one hand, Celsus considered nasal passages to be responsible for olfaction (*On Medicine* 8.1.5–6, discussed in Introduction, p. 3). Galen, on the other hand, and of his own admission against the opinion of the majority (including Aristotle), located the organ of smell in the brain, even though inhalation through the nose is necessary for the perception of odours.[15] It is through experiments, described in the short text *The Organ of Smell*, that he had reached that – surprising – conclusion. He had prescribed to a man who had lost his sense of olfaction through coriza to fill his mouth with water and his nostrils with the spice nigella (*Nigella sativa* L., also known as black cumin), and to inhale strongly.[16] On the fourth day of that treatment, upon inhaling more strongly than usual, the man felt a sharp pain in the head, whence Galen inferred that some of the nigella has been

10 Hippocratic Corpus, *De carnibus* 16 (CUF 13, p. 198 Joly; 8.604 Littré). See Redondo Pizarro (1992) 501–2.
11 Hippocratic Corpus, *De locis in homine* 2.2 (39 Craik; 6.278 Littré).
12 Theophrastus, *De odoribus* 4.
13 Theophrastus, *De sensibus* 25 = DK 24A5.
14 See also Craik (1998: 102–3).
15 Galen indicates that the majority (*hoi polloi*) located the organ of sense in the nose at *De placitis Hippocratis* 7.5 (CMG 5.4.1.2, p. 464 De Lacy; 5.628 Kühn). The pseudo-Galenic, *Definitiones medicae* 119 appears to identify the nose as the organ of smell (19.379 Kühn). On respiration in ancient medicine, see Debru (1996). On Galen's theory of smell, see Siegel (1970); van der Eijk (2010); Boehm (2003).
16 On this plant, see Dalby (2003: 109), s.v. cumin.

carried into the cavities of the brain. He went on to repeat the experiment on numerous slaves, concluding that "the sense of smell arises in the ventricles of the brain" that "sit next to the choroid plexuses". He found validation of this theory in the fact that the brain, like smell, was vaporous: "The necessity for the organ of smell itself to be somehow vaporous appears to agree with these conclusions".[17] Indeed, for Galen, who followed Plato in this matter, each sense was associated with an element, and each sense organ by necessity resembled that element. However, since there were only four elements (air, water, fire, earth), one of the senses – smell – had to be intermediate between two elements, namely air and water:

> [Smell] is a fifth sense faculty, even though there are not five elements, since the category of smells is in nature intermediate between air and water, as Plato said in this passage of the *Timaeus*: "as water changes to air, and air to water, all odours have arisen in between".[18]

Galen's conception of smell was, however, more complex than that of Plato, and incorporated some elements of Aristotelian philosophy. Rather than being simple vapour (water-air), Galenic smell carried earthy and fiery properties.[19]

The Galenic brain, as organ of smell, was also responsible for damaged sense of olfaction: "Damaged sense of smell is an affliction that does not originate in the nasal passageways, but either from the anterior cavities of the brain leading to *dyskrasia* [that is, bad temperament], or from the blocked passages (τρήματα) in the ethmoid bones".[20] On the other hand, older medical authorities (namely, Diocles, Erasistratus, Hippocrates and Praxagoras), according to the Anonymous author of Paris, had argued that a

> paralysis of the sense of smell … is caused by an obstruction of the passages (νεύρων) leading to the nostrils due to phlegmatic humours, which prevents the power of smell from reaching the nostrils.

The Anonymous author classified this "paralysis of the smell" as a disease *per se*, with identifiable symptoms (inability to smell anything; dripping nose) and therapy (sneezing, hot fomentations and sharp injections in the nostrils).[21] A damaged sense of smell, however, was most often regarded as a symptom of another disease. Thus, the compiler of the Hippocratic treatise *Internal Afflictions* noted how a "thick" disease made patients unable to stand the smell of earth, dust and particularly of wet soil after rain; and that of *Diseases of Women* wrote that, in a displacement of the womb to the hip-joint, "the nostrils become dry and blocked, and do not draw anything in. The breath is weak, and

17 Galen, *De instrumento odoratus* 4 (CMG suppl. 5, p. 46 Kollesh, 2.868–69 Kühn).

18 *De placitis Hippocratis* 7.6 (CMG 5.4.1.2, p. 464 De Lacy; 5.628 Kühn). The *Timaeus* passage is at 66e.

19 See Eastwood (1981) for a discussion of Galen's vaporous smell with references. On Aristotle and the sense of smell, see Johansen (1996). On Galen's criticism of the Aristotelian theory of smell, see van der Eijk (2010).

20 Galen, *De locis affectis* 3.15 (8.214 Kühn). See Siegel (1970: 156–57). See also Paul, *Epitomae medicae* 3.24 (CMG 9.1, p. 193 Heiberg), Aetius 6.96 (CMG 8.2, p. 245–46 Olivieri).

21 Anomymus Medicus Parisinus, *De morbis acutis et chroniis* 22 (130–32 Garofalo) = Diocles fr. 83 (van der Eijk).

they [sc. the patients] smell nothing".[22] According to Aretaeus (dates difficult to establish, second century CE?), in epilepsy people could not endure heavy odours, such as that of lignite; and those who suffered from cephalea could bear neither pleasant nor fetid smells.[23] In general, Galen noted that duller and hazier hearing, smell and sight were the sign of an incipient disease.[24]

With these considerations on a damaged sense of smell as symptom of an incipient or established disease, we have touched upon the role of smell as a prognostic and diagnostic tool. We now turn to this topic more fully.

Bodily odour; smell as symptom, prognostic and diagnostic

"In some people the smell of the entire body and mouth is by nature unpleasant, as in others it is irreproachable"; that wo/men could smell, even when healthy, was a recognized fact in antiquity.[25] Numerous cosmetics treatises (which have not been preserved) and medical works contained treatments to tackle bodily odours. For instance, the pharmacologist Scribonius Largus (writing under the emperor Claudius, first century CE) gives the formulae of toothpastes used by "Augusta", Octavia (Augustus' sister) and Messalina; Aetius (sixth century CE) preserves the recipe of a draught against bodily odour; and Pliny mentions the following deodorant, designed by the physician Xenocrates (first century BCE):

> Rank smell from the armpits is corrected by one ounce of the root [of *scolymum*], without its marrow, in three *heminae* of Falernian wine boiled down to a third, taken when fasting after a bath, and again after food, in an amount of one *cyathus* at a time. Xenocrates assures us of an astonishing thing, that he has established by experience, namely that the offensive smell flows out from the armpits by way of urine.[26]

This deodorant to be ingested was apparently not unique. The lost treatise *Cosmetics* of Crito (T. Statilius Crito, physician to Trajan) included recipes of chewing gums against ill-smelling armpits.[27]

22 Hippocratic Corpus, *De Affectionibus interioribus* 50 (Loeb 6.240 Potter; 7.292 Littré) and *De mulierum affectibus* 2.133 (8.282 Littré). See below for more detail on womb displacement.

23 Aretaeus, *De causis et signis acutorum morborum* 1.5 (CMG 2, p. 3 Hude) and *De causis et signis diuturnorum morborum* 1.1 (CMG 2, p. 37 Hude). An English translation of Areateus' work is available: Adams (1856).

24 Galen, *Ars medica* 21 (CUF 18–23 Boudon; 1.361–63 Kühn). See also [Galen], *In Hippocratis de humoribus librum commentarii* 2.2 (16.224 Kühn). See Siegel (1970: 156–57); Boehm (2002: 93–94).

25 Galen, *In Hippocratis epidemiarum librum sextum commentarii* 4.10 (17b.151 Kühn; CMG 5.10.2.2, p. 206 Wenkebach). On human smells in non-medical literature, see Lilja (1972: chapter 6). Further on foul body odours, see Bradley, this volume pp. 135–37.

26 Scribonius Largus, *Compositiones* 59 (Messalina) and 60 ("Augusta" and Messalina) (35 Sconocchia). See Flemming (2000: 143). For modern attempts to reproduce these toothpaste recipes, see Singer and Singer (1950); Hamilton (1987). Aetius 8.8 (CMG 8.2, p. 412 Olivieri). Pliny, *Historia naturalis* 22.87–88. On cosmetics in the ancient world, see, inter alia, Wyke (1994); Richlin (1995); Saiko (2005); Olson (2009).

27 The table of contents to this work is preserved by Galen, *De compositione medicamentorum secundum locos* 1.3 (12.446–49 Kühn: see p. 447 for these chewing gums). On Crito, see Scarborough (1985).

Physicians were not immune to bodily odour. Galen tells us how the famous physician Quintus (one of his teachers) attracted complaints from one of his patients for smelling of wine, a stench more bothersome than that of fever.[28] Hippocratic writers enjoined doctors to take care of their own smell – to avoid luxurious perfumes, to be clean and sweet-smelling.[29]

A certain amount of bodily odour was therefore to be expected in humans. In some circumstances, however, they could be interpreted as signs of illness and become diagnostic and/or prognostic tools for the physician. That is, they could help him to determine what exactly his patient suffered from, and perhaps more importantly, how the disease would evolve.[30] For instance, Thucydides listed fetid breath as one of the symptoms of the plague at Athens; and according to the compiler of the Hippocratic text *On Internal Afflictions*, people suffering from a "thick disease" were afflicted both with bad breath and ill-smelling sweat.[31] As Pseudo-Galen explained, the physician had to consider whether an offensive smell was natural or not:

> One must see whether the [smell of the mouth] is according to nature (κατὰ φύσιν) or against nature (παρὰ φύσιν) and discover its cause: for instance putrefaction of the gums or damaged teeth, or some ulcer or affliction of the stomach, or something else. And [one must proceed] similarly for the other parts of the body, for instance in the ears [enquire] whether there is pus or ulceration. And [one must examine the smell of] sputa, urine and excrement … And in the same way one must judge the smell of vomit.[32]

Let us examine some of the bodily products and fluids listed by Galen in more detail. The ancients considered healthy urine and excrement to have a smell. They observed how that of urine increased, and that of faeces decreased, proportionally with the time spent in the body.[33] They also noticed how urine's odour was affected by foods such as garlic.[34] However, urine and excrement that were smellier than usual were signs that not all was well. Thus the compiler of the Hippocratic treatise *Prognosticon* (a series of short aphorisms) wrote:

> [Healthy excrement] shall be reddish and not too smelly … Those excrements most indicative of death are black, fatty, livid, watery, or ill-smelling … Those urines that are most indicative of death are smelly, watery, black, and thick.[35]

28 Galen, *In Hippocratis epidemiarum librum sextum commentarii* 4.10 (CMG 5.10.2.2.2, p. 206 Wenkebach; 17b.151 Kühn). See Mattern (2008: 35).

29 Hippocratic Corpus, *Praeceptiones* 10 (Loeb 1.326 Jones; 9.266 Littré); *De medico* 1 (Loeb 2.310 Jones; 9.204 Littré).

30 Edelstein (1931) remains a seminal article on the importance of prognosis in ancient medicine.

31 Thucydides 2.49.2, on which see Lilja (1972: 169). Hippocratic Corpus, *De affectionibus interioribus* 49 (Loeb 6.236–38 Potter; 7.288–90 Littré).

32 [Galen], *In Hippocratis de humoribus librum commentarii* 2.1 (16.214–16 Kühn). See Boehm (2002: 93–94).

33 [Aristotle], *Problemata* 13.1. See also Joannes Actuarius, *De urinis* 6.16.9 (2.170 Ideler).

34 Hippocratic Corpus, *De morbis* 4.56 (CUF 11, p. 121 Joly; 7.608 Littré); [Aristotle], *Problemata* 13.6.

35 Hippocratic Corpus, *Prognosticon* 11 and 12 (Loeb 2.22–28 Jones; 2.136–40 Littré). See also *Coa praesagia* 621 (5.728 Littré); Galen, *De atra bile* 8 (CMG 5.4.1.1, p. 91 De Boer; 5.142 Kühn); Celsus, *De medicina* 2.4.9.

According to Galen, an ill-smelling urine or excrement was a sign of putrefaction (σῆψις) of humours in the body.[36] Numerous late-antique treatises, in particular those solely devoted to urine, were to repeat that claim.[37]

Throughout antiquity, medical authors commented on the odour of urine and excrements in illnesses affecting the urinary and digestive organs (kidneys, bladder, intestine), but also in a host of other diseases and afflictions: fevers; parotid swellings; phthisis; pleurisy; jaundice; lethargy; and so on.[38] The authors of the Hippocratic *Epidemics*, a collection of medical case stories, also noted on occasion the smell of their individual patients' urine and faeces.[39]

Urine and excrements are certainly the two bodily products whose smell is most noted in ancient medical literature. Medical compilers, however, also paid attention to the smell of pus, vomit, sputa, ear discharges and blood clots.[40] They commented too on the particular smell of fevers. Thus the author of the Hippocratic *Prorrheticon* argued that the nose was a good diagnostic tool in the case of people with fevers, but had no use in assessing healthy people who followed the right diet.[41] Finally, medical writers discussed the odour of some ulcers, especially that of ulcerated nostrils (an affliction named ὄζαινα in Greek, literally "the smelly") and tonsils – a smell so unpleasant that patients could not endure it.[42]

36 See for instance Galen, *De differentiis febrium* 1.8 (7.302 Kühn); *De crisibus* 1.11 (9.593 Kühn) and 1.12 (9.604 Kühn); *In Hippocratis prognosticum commentaria* 1.42 (CMG 5.9.2, p. 255 Heeg). On bad smell as result of putrefaction, see also Aristotle, *Problemata* 908b21; Theophrastus fg. 4.26. On Galen's use of smell in diagnostic, and in medicine more generally, see Siegel (1970: 155–57); Nutton (1993: 10–11); Palmer (1993); Boehm (2002).

37 See, for example, for urine, Pseudo-Galen, *De urinis* 30 (19.591 Kühn); *De urinis ex Hippocrate, Galeno et aliis quibusdam* 7 (19.625 Kühn); Joannes Actuarius, *De urinis* 3.16.1 (2.68 Ideler) (seventh century). See, for example, for excrement, Paul of Aegina 2.12.1 (CMG 9.1, p. 94 Heiberg); Theophilus Protospatharius, *De excrementis* 16.3 (1.405–6 Ideler) (eleventh century).

38 Kidneys: see, for example, [Galen], *De affectuum renibus insidentium dignotione et curatione* 5 (19.676 Kühn). Bladder: see, for example, Aretaeus, *De causis et signis diuturnorum morborum* 2.10 (CMG 2, p. 31 Hude). Wounded small intestine: see, for example, Celsus, *De medicina* 5.26.16. "Stinking ileus" (obstruction of the small intestine): see, for example, Hippocratic Corpus, *Coa praesagia* 197 (5.626 Littré). Coeliac disease: see, for example, Aretaeus, *De causis et signis diuturnorum morborum* 2.8 (CMG 2, p. 29 Hude). Fevers: see, for example, Celsus, *De medicina* 2.3.5. Parotid swelling: Hippocratic Corpus, *Prorrheticon* 1.163 (5.570 Littré). Phthisis: see, for example, Celsus, *De medicina* 2.8.24. Pleurisy: see, for example, Hippocratic Corpus, *De morbis* 2.46 (Loeb 5.266 Potter; 7.64 Littré). Jaundice: see, for example, Hippocratic Corpus, *De Affectionibus interioribus* 35 (Loeb 6.188 Potter; 7.254 Littré). Lethargy: see, for example, Hippocratic Corpus, *De morbis* 2.65 (Loeb 5.312 Potter; 7.100 Littré).

39 See, for example, *De morbis popularibus* 7.28 (CUF 4.3, p. 70 Jouanna; 5.400 Littré): smelly excrement of the wife of Polemarchus; 7.52 (CUF 4.3, p. 84 Jouanna; 5.420 Littré): a slave's smelly excrements.

40 For general comments on pus' smell see, for example, Hippocratic Corpus, *Prognosticon* 7 (Loeb 2.18 Jones; 2.130 Littré); Celsus, *De medicina* 4.26.20. For general comments on vomit's smell see, for example, *Coa praesagia* 545 (5.708 Littré). Sputa: see, for example, Hippocratic Corpus, *Aphorismi* 7.70 (Loeb 4.212 Jones; 4.602 Littré) (smelly sputa in a fever). Ear discharge, see, for example, Hippocratic Corpus, *De morbis popularibus* 7.5.1 (CUF 4.3, p. 53 Jouanna; 5.372 Littré) (boy of Cydis with smelly ear discharge). Blood clots: see, for example, Hippocratic Corpus, *De affectionibus interioribus* 1 (Loeb 6.70 Potter; 7.166 Littré) (smelly clots of blood in an affliction of the bronchi).

41 Hippocratic Corpus, *Prorrheticon* 2.3 (9.12 Littré).

42 See, for example, [Galen], *Definitiones medicae* 371 (19.440 Kühn). Celsus is the first to use the Latin word *ozaena* (*De medecina* 5.8.18). Ulceration of the tonsils: Areateus, *De causis et signis acutorum morborum* 1.9 (CMG 2, p. 11–12 Hude).

Diagnostic and prognostic by means of smell usually necessitated little more than the nose of the medical practitioner. The Hippocratic treatises *Aphorisms* and *Diseases* II, however, describe a slightly more sophisticated prognostic method involving coals:

> When there is a disease in the lung … If the hair is already falling off and the head is already bald as if from a disease, and if, when the patient spits onto coals, the fatty [expectoration] smells heavily, tell him that he is about to die soon.[43]

Here the role of the test is prognostic – it helps to determine when the patient is going to die – rather than diagnostic; it does not help to identify this particular disease.

Ancient medical descriptions of smells are usually genderless; the masculine is used to refer to both sexes. To my knowledge, there is only one description of odours in a disease that affects men only: froth smelling like that of rutting goats in satyriasis.[44] On the other hand, ancient gynaecological texts, and in particular those of the Hippocratic Corpus, contain numerous allusions to women's stinking menses, lochial flux, faeces and urine; smelly genitals; and general bad smell.[45] In addition, Soranus, in his description of the perfect wet-nurse, wrote that her milk should neither be ill-smelling nor stinking or thick or smelling like vinegar, as these are all signs that it is unwholesome.[46] Women, with their spongy, leaky wet bodies, that produce numerous fluids (menses, lochial flow, milk) had more opportunities to smell than men.[47] Here the medical texts concur with numerous ancient literary works, some mentioned in Bradley's introduction to this volume (pp. 6–7), in which women are seen as the stinky sex.[48] Interestingly, anthropologists have noted that other cultures, besides the Greek and Roman ones, also consider women to be the smellier sex. Like the animals to whom they were often compared, women smelled unpleasant.[49]

Hippocratic physicians and Aristotle also used smelling substances to determine whether a woman could conceive or not, as in the following example:

43 Hippocratic Corpus, *De morbis* 2.48 (Loeb 5.276 Potter; 7.72 Littré). See also *Aphorismi* 5.11 (Loeb 4.160 Jones; 4.536 Littré), where the disease is identified as phthisis.

44 Aretaeus, *De causis et signis acutorum morborum* 2.12 (CMG 2, p. 34 Hude). It should be noted, however, that women could suffer from satyriasis, see Gourevitch (1995).

45 Stinking flux: see, for example, Aetius 16.109 (Zervos). Stinking menses: see, for example, Hippocratic Corpus, *Coa praesagia* 516 (5.704 Littré). Stinking lochia: see, for example, Hippocratic Corpus, *De mulierum affectibus* 1.36 (8.86 Littré). Smelly excrement: see, for example, Hippocratic Corpus, *De mulierum affectibus* 1.50 (8.108 Littré). Smelly genitals: see, for example, Hippocratic Corpus, *De natura muliebri* 65 (CUF 12.1, p. 72 Bourbon; 7.400 Littré). Bad smell: see, for example, Hippocratic Corpus, *De sterilibus* 213 (8.410 Littré).

46 Soranus, *Gynaecia* 2.22 (CMG 4, p. 69 Ilberg). See also Galen, *De sanitate tuenda* 1.9 (CMG 5.4.2, p. 22 Koch; 6.47 Kühn); Aetius 4.5 (CMG 8.1, p. 362 Olivieri).

47 On the conception of the female body in antiquity, see, for example, Hanson (1992); Dean-Jones (1994); King (1998).

48 Most references are collected in Lilja (1972: chapter 6). See also Butler and Bradley, this volume.

49 See for instance Classen (1993): chapter 4; (1994): in particular p. 162. See Bradley's introduction on animal smells. For comparisons of women to animals, see for instance Semonides fr. 7 and Hesiod, *Works and Days* 590.

> Having washed and peeled a head of garlic, apply it to the womb, and see the next day whether she smells of it through the mouth; if she smells, she will be pregnant, if not, she will not.[50]

The Hippocratics conceived of women as having a sort of tube running through their bodies, with two openings: the upper mouth (the mouth of the face) and the lower mouth (the vagina). A blockage in this tube could cause sterility, hence the use of such tests: if the woman was healthy a smell would travel from her vagina to the mouth without problem. The smelling substance used could either be unpleasant, as it is the case here, or pleasant, as it is the case in other recipes.

It should be noted that, although the sense of smell was often used as a diagnostic and prognostic tool in ancient medicine, it was considered rather a blunt one. Similarly, although the olfactory sense was helpful in determining the qualities of *materia medica*, it was not as good as taste. According to Galen, this was due to the size of taste and smell particles: the former, being larger than the latter, stimulated sensation better. The physician went on to argue that the extended taste vocabulary cannot be applied to smells:

> For we sometimes say that something has a sharp (ὀξεῖαν) or pungent (δριμεῖαν) smell, but we do not say that it has an astringent (αὐστηρὰν), sour (στρυφνὴν), salty (ἁλυκὴν), or bitter (πικρὰν), but we bring back most things smelt to two appellations: pleasant (εὐώδη) and unpleasant (δυσώδη).[51]

The vocabulary relating to odours (of bodily fluids and *materia medica*) in the ancient medical corpus is indeed very poor. It is limited to a few epithets such as "pleasant" (εὐώδης), "unpleasant" (δυσώδης, κάκοδμος), "sweet" (ἡδύς) and "heavy" (βαρύς), and similes (for example, faeces smelling like children's dejections; breath smelling like raw fish; and female flux smelling like rotting eggs).[52] Medical writers therefore followed Plato in his assertion that there are only two types of smell: pleasant and unpleasant (*Timaeus* 67e, see Baltussen p. 32 in this volume); as later chapters in this volume demonstrate, this dichotomy appears to have been pervasive in a range of domains across Greco-Roman antiquity.

As a rather weak sense, smell could rarely be used on its own in ancient medicine. It could indicate that a patient was suffering from some disease, but it was not sufficient to determine its exact nature. It could help discover the properties of *materia medica*, but only in conjunction with the more refined sense of taste. This is not to say that smells did not play an important role in ancient therapeutics, quite the contrary.

50 Hippocratic Corpus, *De sterilibus* 214 (8.416 Littré) = *De natura muliebri* 96 (CUF 12.1, p. 81–82 Bourbon; 7.412–14 Littré). Note that there are other such recipes in *De sterilibus* 214. See also *De sterilibus* 219 (8.424 Littré); 230 (8.440 Littré); *De mulierum affectibus* 1.78 (8.178 Littré); 2.146 (8.322 Littré); *Aphorismi* 5.59 (Loeb 4.174 Jones; 4.554 Littré); Aristotle, *De generatione animalium* 747a7–14. On these tests, see Hanson (2004: 296–98); Totelin (2009: 103–4 and 181–82).

51 Galen, *De simplicium medicamentorum temperamentis ac facultatibus* 4.22 (11.699–702 Kühn, p. 699 for quote). See Nutton (1993: 275); Boehm (2002: 79 and 93). See also Oribasius, *Collectiones medicae* 14.6 (CMG 6.1.2, p.186 Raeder); Aetius 1 prooemium (CMG 8.1, p. 29 Olivieri).

52 For these similes, see Hippocratic Corpus, *Coa praesagia* 621 (5.728 Littré); *De morbis* 2.50 (Loeb 5.282 Potter; 7.76 Littré); *De mulierum affectibus* 2.115 (8.248 Littré).

Perfumes, sweet-scented and stinking products all figure prominently in the Greek and Roman pharmacopoeias, as we shall now consider.

Medical therapies employing smell and the womb's reactions to smell

In his treatise *Antidotes*, Galen repeatedly criticized perfume-makers: their knowledge of plants was insufficient and the antidotes they prepared were inefficacious.[53] That last criticism suggests that, in the ancient world, perfume-makers encroached on physicians' territory. Conversely, physicians took much interest in perfumes. First and foremost, they employed them in their medicinal recipes. In the earliest medical texts, those of the Hippocratic Corpus, all references to perfumes are in gynaecological contexts (either in the Hippocratic gynaecological treatises or in the sections devoted to women in more general texts).[54] This may not be a coincidence, as others in this volume demonstrate: perfumes, although also worn by men in antiquity, were associated with the female sphere (see also pp. 138–39). Hippocratic physicians put perfumed oils to use mainly as lubricant for pessaries and as an ingredient in fumigations, in particular in the treatment of a displaced womb (see below). Later pharmacological compilers, in contrast, recommended perfumes in medicaments for both sexes. They used them, applied or drunk, as healing remedies in the treatment of skin afflictions, gynaecological diseases, headaches, earaches and intestinal troubles.[55]

Pharmacological treatises also contained recipes for perfumes. For instance, the second book of Crito's lost *Cosmetics* gave the recipes of numerous ointments.[56] Similarly, a significant portion of Dioscorides' first book of *Materia Medica* is devoted to perfume and perfumed oil recipes, some of which he might have obtained from perfumers themselves – they are indeed mentioned on several occasions.[57] In any case, Dioscorides probably intended his recipes to be prepared by specialists, be they perfumers, pharmacologists or physicians. Indeed, he gives very large ingredient quantities in his perfume prescriptions. Other medical writers composed entire treatises on the topic of perfumes. Thus, Athenaeus preserves fragments from three such texts composed by Hellenistic physicians: *On Perfumes and Wreaths* by Philonides (first century BCE); *On Perfumes and Wreaths* by Apollodorus (uncertain dates); and *On Perfumes* by Apollonius the Herophilean (end of the first century BCE). The fragments of Philonides and Apollodorus deal with the use of perfume in headaches caused by wine consumption; whereas that of Apollonius is a long passage on the best locations for perfume production, such as Egypt and Syria.[58]

Perfumes in antiquity were relatively expensive; not everyone could afford them on a regular basis. According to Galen, two perfumes – *fuliata* and *spicata* – were so

53 Galen, *De antidotis* 1.4, 5 and 10 (14.24, 30 and 53 Kühn). On the links between medicine and perfumery in antiquity, see Schmidt (1924); Forbes (1965: 42–43); Korpella (1995); Totelin (2008).

54 See for instance *De morbis popularibus* 7.64 (CUF 4.3, p. 89 Jouanna; 5.428 Littré).

55 See Riddle (1985: 35 and 89).

56 Galen, *De compositione medicamentorum secundum locos* 1.3 (12.448 Kühn).

57 Dioscorides, *De materia medica* 1.32–63 for perfume recipes. Perfumers are mentioned in *De materia medica* 1.20.1; 1.109.4; 3.4.3; 3.130; 4.23.2 (1.26 and 103; 2.7, 140 and 188 Wellmann).

58 Athenaeus, *Deipnosophistae* 675a–e (Philonides and Apollodorus); 676c (Philonides), 688e–89b (Apollonius), 691f (Philonides).

expensive that only rich Roman women could meet such costs.[59] The addition of perfume to a therapy rendered it more luxurious, more ostentatious. Surprisingly, perhaps, this pharmacological use attracted very little criticism, even in Christian circles. For instance, the Church Father Clement of Alexandria (turn of the second and third centuries) in his *Paedagogus* prohibited the use of scented oil, except in medicine.[60] John Chrysostom in a letter to his female friend Carteria (sent in 404/5 CE from his exile in Pontic Comana) thanked her for sending the remedy Polyarchium to which she had added, in order to keep it moist, spikenard and sweet oil.[61] In Christian healing sanctuaries, however, as shown by Béatrice Caseau (2004), attitudes to expensive scented ointments were more ambivalent. Healing saints made a point of distancing themselves from them, preferring simpler remedies (including unscented oil), but a closer look at some of the evidence shows that they too found use for these costly medicaments.

Perfumes were not the only smelly products to be used in ancient medicine. Ancient pharmacological compilations preserve formulae for compound remedies, whose names refer to their smell: the "sweet smelling", "ill-smelling", or "to be smelt" *pharmaka*.[62] Sweet-scented spices, herbs and gums also figured prominently in ancient pharmacological practice; as well as stinking ingredients such as bitumen, castoreum, pitch, extinguished lamp wicks, seal oil, burnt hair, rue, asafoetida, onion and garlic.[63] In addition, ancient recipes often specified the smell of wine or plants they listed (on some of these scented products, see Draycott in this volume).[64]

One area of treatment in which smells played a particularly important role is that of the womb. Indeed, some medical authorities believed this organ had the ability to move in the female body (along the "tube" described above), thus causing suffocation and other ailments. Fortunately, the displaced womb would respond to smell: it was repelled by stenches and attracted to pleasant scents; applications of smelling substances to both ends of the tube would help the womb move back to its usual location. For instance, in a Hippocratic treatment of a womb that had "turned to the liver" (that is, had risen in the body), ill-smelling substances were applied to the mouth to repel it and sweet-smelling ones to the genitals to attract it back to its normal place.[65]

59 Galen makes this remark in various places. See, for example, *De compositione medicamentorum secundum locos* 2.1 (12.512 Kühn).

60 Clement, *Paedagogus* 2.8.61–76. See Caseau (2004: 156).

61 John Chrysostom, *Epistulae* 34 (PG52.629). On this letter, see Mayer and Allen (2000: 196–204).

62 See, for example, Galen, *De compositione medicamentorum per genera* 5.14 (13.853 Kühn) (sweet-smelling remedy of Lucius the master) and 7.12 (13.1013–14 Kühn) (ill-smelling *acopon*); [Galen], *De remediis parabilibus* 2.6 (14.402 Kühn) (remedy to be smelt, *osphrantikon*, in epilepsy).

63 Information on many of these ingredients can be found in Totelin (2009).

64 Wine: see, for example, Galen, *De compositione medicamentorum secundum locos* 3.3 (12.684 Kühn). On wine in ancient medicine, see Jouanna (1996). Sweet-smelling mint: see, for example, Galen, *De compositione medicamentorum secundum locos* 6.5 (12.928 Kühn). Sweet-smelling fleabane: see, for example, Galen, *De compositione medicamentorum secundum locos* 2.1 (12.503 Kühn).

65 The treatment is described at Hippocratic Corpus, *De mulierum affectibus* 2.127 (8.272–74 Littré). Oribasius gives a list of smelling products to be used in the treatment of the womb at *Collectiones medicae* 10.20 (CMG 6.1.2, p. 62–63). On the use of scent therapy for the womb, see Byl (1989); King (1998: chapter 11); Gourevitch (1999). Von Staden (1992) is also important for "dirty" ingredients, a category which include most "smelly" ingredients.

At the turn of the first and second century CE, Soranus criticized the "majority of the ancients and almost all followers of the other sects" for their use of ill-smelling substances in the treatment of womb suffocation, arguing that "the womb does not issue forth out like a wild beast out of its lair, delighted by sweet-smelling substances, and fleeing unpleasant ones".[66] Soranus did include Hippocrates among his "ancients", but probably unfairly. For, as shown by Helen King (1998: 68–69 and 224), nowhere in the Hippocratic Corpus is it said that the womb is an animal, behaves like an animal, or that it has a nose. Scent-therapy in the Hippocratic Corpus does not presuppose an animate womb, moving towards odour: it functions on purely mechanical principles, hot attracting cold, and vice versa. The Hippocratic womb responds to smell, but is not endowed with a sense of smell.[67]

To find the type of womb descriptions Soranus might have been criticizing, one must turn to Plato's *Timaeus*; to the amulets collected by Christopher Faraone (2003), which represent the womb as a bitch ready to bite; or to the medical writings of Aretaeus, who observed that:

> [The uterus] delights in pleasant smells and goes towards them; and it is disgusted by fetid smells and flees them. And, on the whole, the womb is, in the female human, similar to some animal within an animal.
>
> The womb in women has extensions of the membranes on either side at the flanks. Nevertheless, it suffers the afflictions of an animal in smelling. For it goes towards sweet-smelling substances for pleasure and flees from ill-smelling and unpleasant substances in disgust.[68]

Interestingly, although Soranus rejected the use of ill-smelling substances in the treatment of womb afflictions and the notion of an animate womb, he still recommended sweet-smelling ones in the treatment of uterine prolapse.[69] Similarly, Galen prescribed scent therapy for the womb, even though he too rejected the notion of its wandering.[70] In fact, whether they saw the womb as mobile or not, animate or not, endowed with a sense of smell or not, all ancient physicians agreed on the importance of scents in the treatment of uterine conditions, and this for many centuries. It was one of the longest lasting practices of Greek therapeutics.

Conclusion

Like the philosophers, ancient physicians knew that humans are not the animal endowed with the strongest sense of smell. In fact, it was all rather weak. Humans were only

66 Soranus, *Gynaecia* 3.29 (CMG 4, p. 112–13 Ilberg). See also 4.36 (CMG 4, p. 149 Ilberg) and 1.8 (CMG 4, p. 7), where, however, Soranus concedes that the womb is in some respects "similar to an animal, as it has a sense of touch".

67 On mechanical principles in Hippocratic pharmacology, see also Hanson (1991).

68 Plato, *Timaeus* 91c. Areateus, *De causis et signis acutorum morborum* 2.11 (CML 2, pp. 32–33 Hude) and *De curatione acutorum morborum* 2.10 (CMG 2, p. 139 Hude). Note that neither Plato nor the amulets mention the womb's sense of smell.

69 Soranus 4.38 (CMG 4, p. 151 Ilberg).

70 See, for example, Galen, *Ad Glauconem de medendi methodo* 1.15 (11.47 Kühn) and *De compositione medicamentorum secundum locos* 10.10 (13.320 Kühn). See Green (1985: 50–52); King (1998: 223).

capable of dividing smells into two categories: ill-smelling and sweet-smelling. Physicians lacked the vocabulary to describe in detail the scents and stenches of pharmacological ingredients and human diseases. For that reason, olfaction only played a small part in ancient diagnostic and prognostic practices, well behind touch and sight. In therapeutics, on the other hand, smelling substances were omnipresent, to the point where it is sometimes difficult to draw a boundary between ancient perfumery and ancient pharmacology. Although medical authors explained their use of smelling ingredients in mechanical ways, *contraria contrariis*, their practice might in fact be rooted in a belief whereby some parts of the body, and in particular the womb, behaved in an animal-like manner. The womb, like an animal, had a greater capacity to respond to smells than the patient who hosted it, a patient who would be merely inconvenienced by her scented treatment. But although smell was probably the most animal sense, Galen felt able to locate its organ in the brain, which he considered the seat of the rational soul. It is little surprise to find, then, that the complex and controversial status of olfaction was also a subject of considerable debate among contemporary philosophers, for whom the connections between body and smell, and the relationship between perception, knowledge and understanding, were likewise subjected to intensive scrutiny and analysis.

2

ANCIENT PHILOSOPHERS ON THE SENSE OF SMELL

Han Baltussen

Rather like the physicians, ancient Greek philosophers were puzzled by the sense of smell. Invisible, yet present, odours defied easy definition and analysis.[1] Yet the earliest Greek intellectual pioneers offered remarkably detailed explanations for the sense of smell and odours. They would do so in the context of a broader treatment of perception, offering a rudimentary model which identified, as it were, "the good, the bad and something in-between". Like physicians, they would almost without fail place smell in third place, after sight and hearing.[2] They were very much aware that the information connected to sight and hearing arrives faster and with more detail. To put it in modern terms, speed and information-density were recognized markers for the importance of these two senses. They clearly understood that the information these senses provided was richer and related directly to identifying *what* a thing is. Aristotle famously declared that vision was paramount to human existence (*Metaphysics* A.1, 980a24–31) and stood out because "of all the senses sight best helps to know things, and reveals many distinctions" (*ibid.* 26–27). Aristotle justified this claim with the comment that all humans believe this to be the case.[3] Odours could clearly not compete with the importance attributed to images and sounds. While sight and hearing were regarded as crucial for the acquisition of knowledge in more than one way, the ancients understood that smells tend to offer more diffuse evidence (reflected, as the last chapter demonstrated, in vague terminology) and consequently are harder to interpret: the sense of smell operates along a very rough scale between the extremes of repulsion and attraction. Today this model is still operative, but we have found more

1 If Herz's book title (2007) is anything to go by, we are still puzzled by the sense of smell: *The Scent of Desire. Discovering Our Enigmatic Sense of Smell*.

2 This model in its full form is in fact Peripatetic, although it probably already holds for Plato with regard to sight (*Timaeus* 45b–c; 47a). The Presocratics may originally not have had such a detailed hierarchy, but gave a lot of attention to sight and hearing (e.g. Empedocles A86, 92 DK; Anaxagoras B21 DK; Diogenes of Apollonia 64A19 DK). See also below on Theophrastus, and Totelin, this volume pp. 17, 20.

3 An argument "from majority", which is part of Aristotle's general types of justification in his dialectical treatise *Topics*: when discussing certain premises, he judges them by how widely they are supported ("by many, most or all") as criteria to assess the likelihood of their claim to being true (*Topics* 102a35ff.; cf. *Sophistical Refutations* 182b36–38).

sophisticated ways to detect smells and to clarify what we do and do not know on the basis of their properties.[4]

In this chapter I examine Greek philosophical views on the sense of smell from the Archaic to the Hellenistic age. I will attempt to detail the origins and make a case for the evolution that I believe is present in the progression of explanations for the mechanism of smell. My earlier description of their model (good, bad, something in-between) deliberately alludes to the Aristotelian model of a "golden mean" between extremes, for two reasons: first, because it became the dominant framework for ancient thinking about the senses, and second, because much of our knowledge about the early views is heavily shaped by the model, since evidence for pre-Platonic ideas on smell has come to us *via* Aristotle (d. 322 BCE) and his successor Theophrastus (d. 287 BCE). Originally designed for an ethical context, the model of the "golden mean" proposed that the ideal for most virtues lies between two extremes. Aristotle and his successors used this model on other areas, and in their reporting on the preceding tradition imposed their way of thinking implicitly. It is very likely that the existing notions of opposites and contraries among early thinkers led to such a further step of classification in which a sliding scale existed between extremes.

But why did Aristotle think that this model allowed for a wider application? Aristotle argued that the right kind of behaviour tries to negotiate between extremes; thus true bravery lies between recklessness and cowardice. Here the extremes represent degrees of virtue and vice, either to one end of the scale (too much) or the other (too little). He insisted that a similar scheme could be applied to perception, possibly because "all the sensibles involve contrariety" (*De sensu* 4, 442b18–19). However, with sense perception in general, and smell in particular, it does not quite work so well: the scale may range from a pleasant odour (a rose) to an unpleasant one (rotting fish), but these "extremes" are in no way related to an ideal concept in the middle like the virtues. In a "middle" position smell seems to consist of nothing more than the absence of the extremes; if something smells neither bad nor good, that is, it neither attracts nor repulses, it becomes neutral. This may account for the fact that ancient philosophers had difficulty offering a coherent model around a core notion that would comprehensively explain the odours encountered in the world. That they still tried to clarify and explain these aspects of perception is related to the importance of perception in the acquisition of knowledge. The great range of speculative approaches illuminates both their observational and theoretical skills.

The earliest *philosophical* explanations of the senses (for the medical tradition see Totelin's chapter in this volume) can be retraced to the so-called Presocratic thinkers in the sixth and fifth centuries BCE.[5] We should consider this the start of the philosophical tradition, because any earlier works, like Homer's epics or Hesiod's works, do not give real causal explanations on the basis of theoretical considerations. As I shall illustrate shortly, most comments related to odours in these poems are simple experiential statements based on observation. We know about the Presocratic explanations from a

4 For a modern treatment of smell in relation to food see Shepherd (2012); on a "sixth sense" [Jacob's organ which detects pheromones discovered only in the early twentieth century] see Watson (2000).

5 I say "so-called" because some were actually contemporary to Socrates, and because the label wrongly suggests a coherence among them which holds only to an extent. It is however a convenient term.

number of later sources starting in the fourth century BCE onwards, in particular Theophrastus' *De sensu* down to Alexander of Aphrodisias (ca. 200 CE), with some additional information available in a few other sources.[6] Philosophers typically focused on *causes* and models with a broad scope to explain human physiology and how the senses play a role in our knowledge of the world.

I will present the different philosophical theories in both their historical and conceptual progression. Central to my argument is the claim that, despite growing complexity and sophistication of their explanations, ancient philosophers remained uncertain as to the exact nature of the sense of smell. From the Archaic to the Classical period philosophers continued to rely on the idea that odours are positioned between the "extremes" of pleasant and unpleasant.

Philosophical analysis of smell: sense organ and sense object

Modern efforts to understand the Greek philosophers in their rational analysis of physiology and bodily functions have to accept an element of distortion in the evidence. No systematic analysis existed before Aristotle and Theophrastus (Plato denies that there can be a classification, except in two classes, pleasant and unpleasant, *Timaeus* 66d–67a, see below). They not only made fundamental contributions to the study of odours and tastes, but also used their own concepts and terminology in their reconstructive narrative of the earlier theories. As a result, their ordering of the material and the kind of questions they ask moulded the historical record on Presocratic theories of perception. We therefore cannot escape the Peripatetic framework, as they are the sole portal through which our information on this subject reaches us.

The early students of nature (*phusis,* hence *phusikoi*) gave focused and detailed accounts intended to *explain* what they observed in such a way that general rules could arise, but without being too far removed from the concrete: thus Empedocles gave creative descriptions of colours after observing the technique of painters.[7] Among explanatory concepts two ideas are shared as to what requires explanation: (1) transmission and (2) compatibility between "signal" and receptor. The first point aims to use contact (touch) to explain how several of the senses bridged the gap between object and sense organ (Aristotle, *De sensu* 442a29–31; Aetius, *Placita* IV. 8. 5[8]). The second point considers the question whether the sensory information coming from the objects is compatible with the sense organ, be it as effluences "fitting" into pores (Empedocles, 31A87 DK = Theophrastus *DS* 7; criticized at §12) or as thin films of atoms (*eidōla*) emanating from the surface of an object (Democritus, 68A135 DK = Theophrastus *DS* 50–51). These postulates would be developed as part of mechanistic explanations, in which, for instance, intensity is determined by quantity. Broadly speaking, the sense of smell is linked to "particles" coming into contact with the nose via the air (breath).

A third point which drives the debate on the senses is (3) the question of their reliability. This question is debated more intensely with regard to sight, but the overall

6 I will use the title *De sensu* (short *DS*) for Theophrastus' work (having used the plural *De sensibus* in Baltussen 2000), as I now agree with the arguments presented in White (2002: 25–26, 29); cf. 21.

7 Fragment 31B92 DK; cf A86, Theophrastus, *De odoribus* (see below pp. 42–44). An analysis in Ierodiakonou (2005). He also had a quite elaborate account clarifying the mechanism of hearing, see Baltussen (2006).

8 Cf. Kirk-Raven-Schofield (1993: 428–29).

question whether the senses deliver reliable information about the world affects all sensory experiences. Parmenides cast a strong doubt on their reliability (28B7 DK); in response, Empedocles tried to reinstate them as reliable (31B3 DK, cf. Heraclitus 22B55, 107); others were more sceptical about perceived objects (Anaxagoras 59B21–21a DK; Demokritus 68B115 DK). Plato and Aristotle joined in this debate, the former casting doubt on sensory data, the latter working hard to allow for a high degree of truthfulness.[9]

Finally, all consider the question whether (and if so, how) information is "channelled" into the body. The earliest notion of a "central gathering place" where sensory information comes together was proposed by Alcmæon (c. 540–490 BCE) who concluded, possibly based on anatomical knowledge, that "all the senses are somehow connected to the brain" (*DS* 26, the Greek συνηρτῆσθαί πως πρὸς τὸν ἐγκέφαλον, "connected to the brain" suggests a close collaborative relationship).[10] In other cases too, the brain is given a role in how "raw data" become processed in a coherent way.

Archaic notions: perception in everyday life

Presocratic ideas and terminology grew out of the Archaic world which we find reflected in Homer's epics. Early clues as to how smells were categorized in the pre-Classical Greek world can be found in descriptions of cooking or burning incense. It is worth our while to review these briefly to understand better the background and linguistic ancestry of later terminology.

The experience of smell was divided into two main groups, pleasant (*autmē*) and unpleasant (*odmē*).[11] Unsurprisingly, descriptions of olfactory experiences are mostly based on perceptions from everyday life. They may function as evidence for the Greek aptitude for accurate observation, even if such observations are not methodical. The basic division was given further sub-categories in terms of "flavours" (χυμοί).[12] There is also an awareness that smells are elusive and fleeting. Oils and perfumes get mentioned as especially ephemeral substances: for instance at *Odyssey* 12.369 Odysseus refers to the odour of meat on a spit in the open air, when he tells of his men killing the Apollo's sacred cattle, "I suddenly awoke from a deep sleep, and started on my way back … As soon as I came near my good ship, the sweet smell of roasting meat was wafted to my nostrils". At 17.270 Odysseus (disguised as beggar) speaks to Eumaeus about his own palace and notices meat being cooked indoors, "I gather too that a large company is there for dinner: one can smell the roast, and someone is playing the lyre. Music and banquets always go together".[13] At sacrifices a priest would burn part of the offerings (meat) and incense, so anyone attending was familiar with the odours released on such occasions.

9 For a discussion of philosophical approaches to the reliability of colour vision, see Bradley (2009a: chapter 2).

10 See also Aristotle, *Historia animalium* 495b6, 516a8. The verb *sunartaō* can mean "join together", "be closely engaged" (*LSJ*).

11 Körner (1932: 50); Beare (1992). Note that *odmē* is actually also used for "pleasant", e.g. *Odyssey* 5.59 and 9.210, *autmê* and *odmē* are not always opposites (see Clements' chapter in this volume).

12 "Geruchskomponente des Geschmacks", Körner (1932: 50). In English translations these will appear as "flavours" as distinct from *khuloi* "flavour-juices" (or "plant-juices"), Einarson-Link (1990: 201n).

13 See also Clements, p. 50.

None of these descriptions amount to a general or generalizing explanation, or suggest an attempt to encapsulate an account of cause and effect in precise terminology. The degree to which Archaic Greeks engaged with the phenomenology of vision, sound and smell was experiential, direct and almost unquestioning. For more considered and rational explanations for the "how" and "what" of sense perception we have to turn to the famous period in the sixth century BCE, when in Asia Minor a number of natural philosophers (*phusikoi*) started to question traditional views and customs, including the role of gods as explanatory factors for natural processes. The first known rational explanations of perception can only be called "theories" in a very loose sense of the word. The first philosophers focused on concrete problems rather than offering comprehensive and coherent models of explanation.

Our most important source for pre-Aristotelian theories of perception is Theophrastus. In his *De sensu* (*DS*) he informs us about the wider principles underlying the Presocratic views on the senses, dividing them into two camps:[14] Empedocles' explanation of the five senses (*DS* 7–12) depends on the general principle of like-by-like, while Anaxagoras (*DS* 27–30) considers difference the broader principle which explains their basic mechanism. For other Presocratics, however, Theophrastus only deals with sight and hearing. His criterion for each theory, the demand for consistency in explanations offered,[15] leads him to shorten his account, whenever he finds it; in the case of Democritus (*DS* 57) he will not give details beyond the explanation for sight and hearing, commenting that "for our other senses, his treatment hardly differs from that of most others". A third source, Aëtius' *Placita* (ca. 50–100 CE), compiled philosophical views, devoting several sections to the senses and echoes their Aristotelian arrangement (4.1–23).

Among the Presocratics the hierarchy of the senses was not random: while the earliest comments on the senses in Homer were sporadic, now speculation began to proliferate on how humans learn about the world by seeing, hearing, smelling, tasting and touching. This hierarchical order commonly found (and eventually codified) in Aristotle occurs in most accounts of the physiological functioning and epistemological role of the senses. Sight is primary in cognitive relation to the world, since it allows living creatures to move around safely, find food, and is unequalled in informing us about objects and their colours, shapes, position and dimensions (Aristotle, *Metaphysics* A.1, quoted above, p. 30).

As a source for complex information, then, sight would seem superior to the other senses, which are more narrowly focused or "specialized". Hearing came second on account of its complementary role to sight. In everyday life this can be useful in very practical terms: *seeing* an orator perform (facial expressions, gesticulations) is crucially aided by *hearing* what an orator says. Only *together* will sight and sound convey the full impact of the message; in other words, their primacy may originally be the result of their social and political role in ancient society. The other three senses seem to pick out a more selective aspect of the world as it appears to us; they are supplementary to the first two. Smell is at least recognized as being of some importance for people's well-being

14 Aristotle divides previous views into three groups (*De sensu* 4, 441a10) or two (*ibid.* 5, 443a25).

15 *DS* 13, 15, 18, 49, 51, 59, 92; cf. *On Odours* 64. I have discussed the importance of theoretical consistency in Baltussen (2000: 25, 168f., 202–4).

and the perception of one's environment. The close connection between smell and taste – a core notion of modern biology[16] related to food and survival – was only slowly becoming known.[17]

In Theophrastus' reports the earliest explanations of the senses seem to agree on the hierarchy of the senses. Smell may get brief mention in some accounts, and considerable attention in others. For instance, Plato's reference to Alcmæon, a sixth-century thinker, mentions seeing, hearing and smelling as his object of study (*Phaedrus* 96b).[18] It is, however, possible that reports are slightly misleading on this point, as both Aristotle and Theophrastus could be superimposing their own belief in this hierarchy retrospectively onto their predecessors (Arist. *Metaphysics* A.1, Theophr. *On odours* 1).

Presocratic theories

From the reports on their philosophical views, it is clear that the Presocratics found smells intriguing phenomena. Out of the general study of nature, soon explanations of phenomena were linked to the problem of how perception can influence what we know (or think we know) about the world.[19] That they struggled to find precise articulation in language for them was partly caused by their invisible nature. As a result they would study them by way of the most familiar objects in everyday life, but raising analysis to a new abstract level.[20]

Empedocles' view on the sense of smell in a report of Theophrastus proposes the following explanation (*DS* 9 = 31A86 DK):

> [1.1] Smell, according to Empedocles, is due to the act of breathing. [1.2] As a consequence those have keenest smell in whom the movement of the breath is most vigorous. [2] The most intense odours emanate from bodies that are subtle and light [translation: Stratton].

Here Theophrastus redefines in prose form the two main notions reproduced from Empedocles' poetic account into a general principle about how the sense of smell works (it is crucially linked to breathing), and further clarifies by adding a consequence of this general principle (it makes a connection between intensity of breathing and the keenness of smell).

We should note that Stratton's translation ("due to", p. 74) is ambiguous, leaving it open whether this phrase is meant to signify a primary or concomitant cause. If we follow Theophrastus' lead and for now translate "comes about by way of breathing", breathing will be an important concomitant one. By contrast, the other general principle used by Empedocles – that perception takes place as a result of the "fitting of particles into pores" (*DS* 9) – does suggest that this is the actual cause, because it establishes

16 See Shepherd (2012).

17 First by Aristotle and Theophrastus (*On Odours* 5 and below, pp. 42–44).

18 Beare (1906): 131.

19 They were developing epistemology: Parmenides already expressed doubts about the truth value of sense impressions (Plato *Sophistes* 242a; Sextus Empiricus *Against the Mathematicians* vii, 114 = 28B7 DK), while Empedocles defended them (Sextus Empiricus *Against the Mathematicians* vii, 125 = 31B3 DK).

20 On perfumes and plants see below on Theophrastus. On bad breath and body odour see final section.

contact, even if at this stage that may still only mean a raw (i.e. unprocessed) form of perception.

As in so many cases in the *DS*, Theophrastus goes on to criticize specific points in Empedocles' theory, including the notion of effluences in smell. He comments that

> … if effluences involve a loss of substance – and this he uses as a universal testimony < for his theory > and if it be true that odours arise through effluence, then those substances with the strongest odour would most rapidly perish. (*DS* 20.)

Theophrastus strongly disagrees with this view, which assumes a correlation between effluence and loss of substance. As he sees it, the opposite is the case (νῦν δὲ σχεδὸν ἐναντίως ἔχει): "the most fragrant plants and other bodies that are most odorous are the most enduring" – a view which he also defends in his own works.[21] In *DS* 21, Theophrastus continues his critique by focusing on weak spots and empirical evidence that points in the opposite direction: (i) the link of breathing and smell does not hold for all animals since some do not breathe, but still smell, at least in Aristotle's view;[22] (ii) on the point of intensity or keenness of smell as a result of inhaling most, Theophrastus adduces further exceptions by listing those who are unhealthy (e.g. have an obstruction), or comments that those who are "short of breath, or asleep or at hard labour should be most sensitive; yet the reverse is the case" (*DS* 21). From an Aristotelian point of view, Theophrastus is compelled to declare breathing an "accidental cause", expressed by the technical phrase *kata sumbebēkos*. Thus he offers several serious objections, which highlight internal inconsistency as well as empirical shortcomings. He does not impose many elements of Peripatetic doctrine (one technical phrase), justly refusing to accept a primary causal link between breathing and smell.[23] But Empedocles was clearly on the right track.

The second relevant discussion in Theophrastus concerns Anaxagoras of Clazomenae (*fl.* 420–10 BCE). At *DS* 28 Theophrastus briefly mentions smell and hearing, noting that "the former [= smell] accompanies inhalation". Anaxagoras adheres to a principle of contrast, in which "pain" plays a major role (29). Although Theophrastus considers his account reasonable at first blush, at *DS* 30 he offers further insight into Anaxagoras' ideas, this time concerning the keenness of the senses. He then paraphrases Anaxagoras:

> large animals hear loud sounds and sounds from far away, and the more minute sounds escape them; while small animals hear sounds that are minute and close at hand. *And similarly of smell*: for rarified air has a stronger odour, since it is odorous when heated and rendered less dense. … For an odour nearby is more intense than one remote, he holds, because it is denser and in scattering becomes faint. Roughly, then, his view is that large animals perceive no "subtle odour"[24] and small animals no odour that is dense.

21 See *On Odours* 39, 43, *CP* 6.14.9–12; cf. Sharples (1985: 193) and below. Such parallels strengthen the suspicion that Theophrastus was not just doing dialectical exercises in this work. For more detail on his doctrinal commitment see Baltussen (1998).

22 See Aristotle *De sensu* 5. 443a2–8, 444b7–13, noted by Sharples (1985: n.108); Stratton (1917: n.67).

23 The same problem is raised against Alcmaeon (Theophrastus *De sensu* 25).

24 Stratton reads reading *osmēs* for *äeros* (his n.94) after Beare (138 n. = Diels *Doxographi* 508).

The passage again highlights degrees of sensing depending on size and distance as well as density of the air. As becomes clear, Theophrastus is not convinced that these conclusions follow from the general principle stated by Anaxagoras: even if one grants that pain or discomfort underlies contrast, it does not follow that it underlies *all* sensing – that is, Theophrastus doubts whether an opposite actually *recognizes* an opposite (§31). Thus he refuses to accept the implied link between the notion of contrast and the cognitive function of smelling. In addition, he counters the position that assumes a correlation between size and perception by claiming that "it is held (*dokei*) that, so far as certain of the senses are concerned, small animals are superior to large ones" (34). The expression "it is held" (*dokei*) may be taken as signalling an *endoxon*, which in Peripatetic thought is a view supported by some, the many or all; in this case, at least by Theophrastus and his school.[25] Another Peripatetic, Hieronymus of Rhodes, offers a good parallel: he also states that distance and fineness produce a better smell from flowers, and the cause given for *diminished* fragrance is that "earthy and muddy particles are emitted with the scent and these ruin its fragrance when it is received from nearby".[26] In short, Anaxagoras' position is clearly countered by Peripatetic doctrine.[27]

A third figure of interest in *DS* is Diogenes of Apollonia (*fl.* 430–25 BCE). Unlike Empedocles, who connects smelling to breathing, Diogenes linked it to air and the brain (*DS* 39; a similar view is attributed to Alcmæon, *DS* 25). Our information from other sources confirms the main aspects of Diogenes' theory.[28] In fact, Diogenes connected all senses, life and thought with air (*loc. cit.*).[29] Smell "is effected by the air around the brain" (*ibid.*).

Diogenes' emphasis on the brain in sensory cognition forces him to connect odours and the brain's air; he does this by arguing that when they are "commensurate" (*summetros*), and in suitable condition (*diathesis*), they mix, producing sensation (its opposite resulting from the two being "incommensurate", *asummetros*). Like Empedocles, Diogenes speculated about the acuteness of the senses. With regard to the sense of smell he suggested that it is "keenest in those who have least air in the head, for then this air most readily (or: quickly) mixes [with the odours]" (*DS* 41; translation: Stratton, slightly adjusted). The suggestion here is that the *low volume* of air will facilitate mingling and the sensing of odours. Air is thus both the medium and the sensing agent. For this to work these had to be at least qualitatively different.

One notable absence in Theophrastus' discussion is the famous philosopher Heraclitus. Theophrastus' lapse is the more striking because Aristotle commented at least twice on Heraclitus regarding the sense of smell. Such a reproach assumes that he had all

25 An *endoxon* is a theoretical concept from Aristotle's dialectic, which plays a part in establishing generally held views as starting points for investigations, see *Topics* A.2 (Baltussen 2000, ch 2).

26 Fragment 10 White [in *RUSCH* XII (2004: 115)] = Plutarch, *Quaestiones Conviviales* 1.8 626A–B = fr. 53 Wehrli. White also gives useful parallels in [Aristotle] *Problemata* 31.

27 See also Aristotle, *De sensu* 5, 443a22–31 for an endoxic argument on the role of breathing.

28 The Neoplatonist Simplicius still knew Diogenes' work on nature and preserved some important quotations and paraphrases. See Laks (1981); Baltussen (2008: 63, 65). We cannot exclude a certain "contamination" between his direct access to Diogenes and to Theophrastus' report, whose work he used.

29 The importance of air for Diogenes, especially its lightness causing motion, is also emphasized by Aristotle, *De anima* 405a20–25 in his discussion of earlier theories of the soul, and returns in Theophrastus, *On Odours* 45 (on which see below).

the works of his teacher available, which may not be true.[30] Aristotle's discussion expresses a special interest in a more fine-grained analysis regarding the intensity of smell and density of the odour. In the first passage Aristotle refers to Heraclitus when discussing "warm exhalation" (*anathumiasis*, *De sensu* 443a21), inferring that Heraclitus believed this exhalation was the essence of odour. In a similar comment about *anathumiasis* (*De anima* A.2, 405a24–30), Aristotle suggests that Heraclitus made the "warm exhalation" the principle of soul (24f.). But we should note that in both cases Aristotle cautiously places the comment in a conditional clause. It is unclear whether we should also consider as conditional the justification he gives: "because it is most incorporeal and always fluid". From these few scraps of evidence we can infer little about Heraclitus' considered views about the sense of smell, but clearly he did consider the role of the senses in connection with his theory of knowledge.

One further difficult passage concerning Heraclitus refers to perfumes (fragment 67 DK = Hippolytus *On the Heresies of the Greeks* IX 10,8 = fr. CCXXIII Kahn), which mentions mingling and perfumes, so that "it gets named according to the 'flavour' of each one".[31] The analogy from the crafts is of interest (perfumed oils would often act as a neutral carrier of odorous qualities): it illustrates maybe not so much a notion of "substance" as an awareness that the essential nature of a material may not be perceived on the surface.

From this brief discussion of the views on smell among Presocratics the overall pattern is clear: the early Greek philosophers did include very particular claims about sense perception in their study of nature and humanity. Empedocles, Anaxagoras and Diogenes offered their views on how to clarify the causes and mechanisms of the senses, often framed by a broader principle, which Theophrastus sums up as being of two kinds: by similarity (Empedocles) or by contrast (Anaxagoras).[32] This rather schematic analysis may seem too reductionist and basic, but it was also convenient. Even if much of the material is mediated via Peripatetic paraphrase, we can get a reasonably good impression of the detail and imagination the early Greek philosophers put into their effort of theorizing about perception. These reports are a valuable source for us because they were written not so long after Empedocles and Anaxagoras. Diogenes was closer in time to Aristotle, but his general theory is often considered a throwback to earlier positions, except for some of his ideas on the arterial system, which were innovative and in line with Hippocratic ideas of his day.[33]

Presocratic treatments of smell already reflect common elements in that they all go beyond the Homeric model of two broad groups of odours (pleasant and unpleasant) and consider intensity and variation in relation to such aspects as distance, size of percipient and the nature of the medium. While in third place after sight and hearing, smell still received a broadly similar treatment. Their models provide crude and

30 In many ways Theophrastus builds on Aristotle's ideas, but it is hard to assess which works were available to him. The early survival of Aristotle's writings is a complex and vexed scholarly problem. For the most recent treatment (with further literature) see Barnes (1997).

31 Kahn (1979: 280 with note 420) argues persuasively that this is not a first reference to the philosophical notion of "substance" (an "essence" *underlying* the visible qualities of a thing). For an interpretation of B67 DK see Clements, this volume, pp. 54–55

32 Though some thinkers do not fit this convenient scheme: individuals such as Alcmaeon (c. 500 BCE; *DS* 25–26) and Clidemus (*DS* 38) are "appended" to Empedocles and Anaxagoras respectively.

33 *Oxford Classical Dictionary* 3rd ed. s.v. "Diogenes of Apollonia" (M. Schofield).

unsatisfactory explanations of the mechanism, but the fragmentary state of the evidence may well hide certain details from view.

Plato

Plato's and Aristotle's models present a coherent and interesting set of underlying premises. Aristotle's in particular goes some way in offering a more comprehensive and theoretical explanation.

Plato harboured a philosophical scepticism towards the sensible world (*Tht*. 186d; *Phaedrus* 73–76; *Republic* 476, 523–24). His main philosophical focus was on the ethical rather than the physical, the conceptual rather than the concrete. His treatments of the sensible world came with serious qualifications, since he became convinced that physical objects were an inferior reflection of the ideal Forms. He included an account of the senses in one work, *Timaeus*, where he offers an allegory in which a Craftsman-God (Demiurge) creates the cosmos and everything in it. Modern readings tend to limit the value of Plato's account, but because his study of nature influenced those coming after him, we cannot ignore his ideas. Two important passages inform us about his approach to sense perception and smell, and allow us to gauge the extent to which this topic had any significance for him.

The cosmological theory in this work is set out by Timaeus, a Pythagorean, presenting a comprehensive account of the universe, from the stars (macrocosm) down to smallest particles of matter (microcosm). It is a remarkable synthesis of previous views on nature but now adapted into a new framework with Pythagorean leanings. In *Timaeus* 45b–e Plato discusses sight, emphasizing a teleological explanation for its creation by the Demiurge. This interpretation of sight already shows his metaphysical interest: sight is a means to understand the universe.

About the sense of smell and odours we learn more at 66a–d. Within the context of his discussion of "affections (*pathē*) of particular parts" Timaeus describes how the tongue is affected by foods and flavours (65b–c). Timaeus' language here indicates how his explanation fits the general theory set out earlier in the work, which presents the sensory process in terms of an interaction between sensory object and sense organ, here the *effect* of certain substances on the tongue (e.g., astringent, cleansing, bitter, salty, etc.).[34] This is an attempt to connect the experiences one has in tasting (which are subjective) with the "sub-atomic" processes of the basic elements and their geometric constituents that Plato expounded earlier in the work (presumably objective).[35] When he next discusses smell, he makes use of a mechanism that assumes the need for compatibility between the pores ("veins", 66d) and the elements. His description discloses that he already recognized the close connection between taste and smell and he too understands the mechanism to work by compatible "particles" and "pores" (66d–67a):[36]

34 An approach criticized by Theophrastus *Causes of Plants* 6.1.3–5.

35 Plato had constructed the traditional elements water, air, fire and earth from triangles, which gives the system an underlying coherence and mathematical rigour, but also guarantees the exchange between three elements (*Timaeus* 53c–57d, earth excepted).

36 The accounts of *Timaeus* are summarized and critiqued in Theophrastus, *De sensibus* 83–91 and *Causes of Plants* 6.1.3–5.

> As for the power belonging to the nostrils, (a) there are no types within it. This is because a smell is always a "half-breed". (b) None of the elemental shapes, as it happens, has the proportions required for producing any odour. The vessels involved in our sense of smell are too narrow for the varieties of earth and water parts, yet too wide for those of fire and air. Consequently no one has ever perceived any odour coming from these elemental bodies. (c) Things give off odours when they [66e] either get damp or decay, or melt or evaporate; for when water changes to air or air to water, odours are given off in the transition. All odours collectively are either vapour or mist, mist being what passes from air to water, and vapour what passes from water to air, and this is why odours as a group turn out to be finer than water, yet coarser than air. […] These variations among odours, then, form (d) two sets, neither of which has a name, since they do not consist of a specific number of simple types. Let us draw the only clear distinction we can draw here, that between pleasant and offensive [translation: Zeyl, slightly modified].

This passage makes a number of claims which adopt earlier views and influence later thinkers: (a) that there is no clear classification of odours (opening; complex varieties; two main groups); (b) that the incompatibility between passages and elements explains why they cannot be perceived (note that this does not prove that they are *odourless*, merely that they cannot be detected); (c) that smells arise from things that are mixed; and (d) that there are two kinds only. It is worth noting that these claims are not all properly justified, and that Aristotle and Theophrastus adopt (a), (c) and (d). Plato here clearly follows traditional definitions based on common experience ("no one ever perceived … "; in the turns of phrase "are unnamed", "are ranked", the passive construction implies generally accepted views).

A final comment on his definition of the two kinds, "pleasant" and "unpleasant"; here too the criterion for their properties is intimately linked to the sensory *experience* (67a):

> the [unpleasant] irritates and violates the whole upper body from the top of the head to the navel while the [pleasant] soothes this area and welcomes it back to its natural state [translation: Zeyl].

Thus Plato indicates that these sensations are deeply corporeal and subjective, which confirms his position that anything we encounter and perceive in this world has no permanent identity, and therefore no lasting value.

Aristotle (384–322 BCE) and Theophrastus (c. 370–287/5 BCE)

Aristotle and Theophrastus agree that the model of extremes and the mean could work in general terms, but that many questions on the topic could not always be answered. Aristotle set out his views in two principal works on the sense perception and its role for human physiology: *On Sense perception and Sense Objects* (*De sensu*) and the *On the Soul* (*De anima*).[37] The Peripatetic discussions of the senses are probably the most

37 I say "principal", because in several other biological treatises he says relevant things about the senses.

detailed and influential of the surviving evidence in two critically distinct ways: they offer a more detailed theory and transmit the views of their predecessors to us. Because Aristotle has the habit of evaluating and "recycling" previous views (a method I call "critical endoxography"[38]), many of their predecessors' views also survive, but in a form that requires careful unpacking in order to defuse the Peripatetic point of view and format. Aristotle's well-known "historical" overviews at the beginning of treatises show that he was keen to preserve useful ideas from previous thinkers (*Metaphysics* A.1, *On the Soul* A.2–4, *De sensu*, *On the Heavens* A.10). This approach was given a clear justification by using a progressive view of human knowledge: he sensibly did not start from scratch but built on those views that he considered viable.[39] In addition, he held the belief that agreement on certain matters contained clues for the truth about them (e.g. *Nicomachean Ethics* 1173a1, 1143b11–14). Theophrastus followed suit. In fact, he probably wrote a more systematic collection of earlier views in physics (listed in Diogenes Laertius' *Lives of Eminent Philosophers* 5.48) and a specialized treatise on the senses, which I have already quoted extensively in the section on the Presocratics.[40]

In his works Aristotle constructs a new theory which – while still empirical in its foundations – is more ambitious and complex in its aims. His account of the sense organs begins with a polemic against his predecessors (*De anima* A.2), and optimistically assumes a compatibility between objects of the senses and the appropriate sense. Aristotle starts from the commonly accepted view (*dokei*) that motion and sensation are the defining properties of animated beings (*De anima* 403b25–27). The process of sensing involves motion(s) bridging the gap between organ and object.[41] They start in the heart, which is the centre of the sensory/perceptive abilities.[42] In the course of perceiving the object and the organ (which are potentially alike) are brought together so that in the act of perception these become actually alike. Aristotle thus succeeds in combining the two principles existing before him (like-by-like and contrast) into one explanatory description through the concepts of potentiality and actuality, and the additional idea of a permanent substrate which acquires and loses qualities. The attempt to deliver an overall coherence stands out: as Theophrastus' critical evaluations of the Presocratics showed, the Peripatetics subscribed to the view that an (underlying) unifying principle is a requirement if one wants to explain the diversity of sensory phenomena.

Aristotle also believed that defining the sense of smell is problematic, especially in comparison with sight and hearing (*De anima* 2.9, 421a7–11).[43] But this did not keep him from trying: for Aristotle the world is knowable. Basically smell is caused by the dry part of taste. His crucial position on how we perceive smell is stated at *De sensu* 5, where Aristotle also defines smell according to the two properties we have seen several

38 Baltussen (2000: 41–42). The phrase expresses critical evaluation of *endoxa* (above n. 3).

39 As recent research has emphasized, he justifies this approach in *Topics* A.14. See Mansfeld (1996), Baltussen (1996), (2000) and nn. 3, 25.

40 We also know that Strato, third head of the Peripatos, wrote on sense perception (Diogenes Laertius 5.59 *peri aisthēseōs*), but the work does not survive. Relevant materials are also extant in some other works written in the school but of uncertain authorship (e.g. ps. Aristotle, *Problemata*, *De coloribus*, *De audibilibus*).

41 *De anima* 413b21–23; *Physics* 244b5–245a11. In this section I build on Baltussen (2000: 76–78).

42 *De somno* 456a6.

43 This section on Aristotle owes much to the thorough analysis in Johansen (1996).

times in earlier theories; pleasant (e.g. flowers) and unpleasant (e.g. fumes of charcoal).[44] Perception is a process of change (hence part of physics) whereby "an agent acts on a patient".[45] The interaction which subsequently takes place leads to assimilation of agent and patient (*De anima* 418a3 ff.): here the potentiality of the agent to become like the patient (and vice versa) depends on the nature of each. They both have the potential to become like the other; usually water or air is the responsible element. This characteristic is also supposed to guarantee that the proper object ends up with the appropriate sense organ (colour with sight, sound with hearing, etc.).

Yet he has stated at the outset (quoted above), that odour is not easy to define, in part because human sense of smell is not very good (*De anima* 421a9–b2), in part because our language does not offer a very nuanced and distinctive set of terms for odours, but uses the same names as we do for flavours. This analogy with flavours allows for an indirect classification of smells in connection with nourishment.

Aristotle also worried about the transmission of the olfactory information from the point of origin to the sense organ. He came up with an ingenious solution for the question how odours move from, say, a flower to the nose, in a way that would deliver reliable information: he proposed to allow for air to play a role as a medium. In addition, he tried to explain how certain animals can perceive odours in the water. As the dry flavour is being washed off, smell will also be available to water creatures. In other words, odour is transmitted in both air and water, "because both air and water have the ability to wash the flavoured dryness".[46] Thus Aristotle offered a more comprehensive and more coherent account of perception in general and of sight, hearing and smelling.

His successor Theophrastus (c. 370–288/7 BCE) worked with the same theoretical assumptions. He devoted special attention to flavours and odours, and in writing his work *On Odours*[47] produced the most elaborate investigation on the subject surviving from antiquity before Galen.[48] It discusses odours in the context of his plant studies.[49] The quotations in later Greek and Arabic authors illustrate its importance for their scientific or scholarly pursuits (Galen, Athenaeus, Photius, ps.Plato).[50] Theophrastus proves to be a shrewd investigator using the plant studies not just to catalogue and organize them, but also to enquire into their aromatic properties. This work also allows us to establish where his own views underlie the comments he makes about the Presocratics (section above).

The theoretical basis for his own positions on odours is stated in the opening sentence (*On Odours* 1):

44 As Johansen (1996: 6) points out, this is not quite what one expects after reading *De anima* 2.9.

45 Johansen (1996: 2).

46 Johansen (1996: 12).

47 *Peri odmōn* or *De odoribus*. The most recent edition is Eigler (1993). The original work has survived in a group of nine works in the manuscripts, usually referred to as Theophrastus' *Opuscula* ("Minor works"): Burnikel (1974). A work which does not survive was entitled *On Flavours* (*Peri khulōn*, Diogenes Laertius, *Lives of Philosophers* 5.46).

48 Galen used Theophrastus' discussion of tastes and smells, see Sharples (1985: 183–93).

49 It is printed together with his long *Historia Plantarum*, "Enquiry into Plants" in the Loeb edition (ed. Hort 1926), where it is called a "minor work". For its transmission see n. 46 (Burnikel).

50 See Sharples (1995: 206–8).

> Odours in general are due to mixture, like flavours: for anything which is uncompounded has no smell; which is why simple substances have no smell, such as water, air, fire. But earth is the only one that has a smell, or at least to a greater extent than the others, because it is of the most composite character [translation: Hort, modified].

While following Plato and Aristotle in the doctrine that the mixture of basic elements (themselves odourless) produces odour and indicating that odours and flavours (*khumoi*) are closely linked, Theophrastus proposes a classification of odours according to their "distinctive characters" (*ideas*) or lack thereof, all the while continuing to compare them with flavours. Again his observation that odours and flavours are interlinked is correlated to language: they have similar but not identical names (*On Odours* 1). In another comment he tries to clarify the "*kinds* of good and evil odours" (§2), but has to forego precision here too, since he admits that there are few names for them, although he offers descriptive adjectives as alternatives ("pungent, powerful, faint, sweet, or heavy"). Such adjectives fail to map out the evil and good odours in a convenient way: "some of these descriptions apply to evil-smelling things *as well as* to those which have a good odour" (my emphasis). Theophrastus' attempt to establish a foundation for the analysis, leading to broad generalizations on the subject matter, is not quite successful, given his admission that certain terms apply to both extremes of the "odour-spectrum". But this is not a theoretical flaw but rather an empirical observation on established linguistic conventions.

When it comes to the detail of his theory, the following five positions are important. First, he indicates that odour has something to do with an "exhalation" from the object of smell.[51] He betrays a keen interest in the notion of loss of substance as a result of "weakening effluence", which he believes would wear down a substance quickest; this is clear from his critical comments on Empedocles when he objects: "the most fragrant plants and other bodies that are most odorous are the most enduring".[52] This position is confirmed in his own more positive formulation at *On Odours* 39 and 43, where he claims that perfumes made from roots and other solid parts of a plant last longer: "their odour being fuller, stronger and more substantial (σωματωδεστέρα)".[53]

Secondly, much of his analysis is based on concrete examples of mixtures (three options: solid with solid, liquid with liquid, solid with liquid) from the "makers of spices and perfume-powders" (§8). It is not easy to establish whether this model determines his whole theory of odours, but as the general claim in §1 makes clear, mixture is the key notion for odours. Thirdly, oils make odours last which is why they are the "vehicle for perfumes" (14), but, remarkably, Theophrastus also declares oils to be "not at all well suited to take in an odour". Fourthly, the insistence on mixture as crucial for smell depends on Aristotle's idea (*De sensu* 442a12–14, b26–27). And finally, he attributes to odours certain powers (*dunameis*).

51 Sharples (1985: 193), with n. 113 (*On Odours* 3; cf. *Causes of Plants* 6.9.3, 6.14.11, 6.16.8). The Greek phrase used here (*aporroai*) is unusual and reminds us of his criticism of Empedocles and Anaxagoras.

52 *DS* 30 = fr. 31A69 DK [see DK, p. 304.31–32].

53 Hort's translation. Cf. *On Odours* 43–44; *Causes of Plants* 6.14.9–12 (the rose at 4.11). Cf. Priscian *Paraphrase of Theophrastus' Discourse On the Soul* 1.30 (Suppl. Arist. vol. 1.2 p15.20–17.33 Bywater = 277B FHSG) with Huby's commentary (1999: 43–50). The apparent contradiction between *DS* 20 and *Causes of Plants* 6.9.3 (above n.49) has been resolved by Sedley (1985).

Along the way Theophrastus offers several other observations of interest: human sense of smell is inferior to that of other animals, which is why we do not always detect when certain foods are bad (§4–5); odours have medicinal properties (§35); the rose perfume overpowers others (44–45); saturation of the sense(s) will cause a blockage, leading to non-perception (§45). Building on Aristotle's idea of the medium, Theophrastus in fact proposed a new term in order to fill the gap noted in this domain. According to the commentator Philoponus (early sixth century CE) he coined two terms, the *diosmon*, which is an analogue to the transparent (*dia-phanes*) and expresses a notion of "trans-odorant" to indicate it transmits odour, while the *dieches* "trans-sonant" mediates sound.[54]

In conclusion, both Aristotle's and Theophrastus' systematic and historical treatments of the senses illustrate the coherence in their own views on the subject and also show well how the theoretical level of the explanations expanded as a result of debate and evaluations of previous ideas on the subject.

After Aristotle, philosophers moved their gaze from the mechanics of the senses to their role in knowledge acquisition. The close study of how humans see, hear, smell and taste as part of physiology now became subsumed under epistemology. Rather than ask "How do we perceive the world?", philosophers engaged in robust discussions about whether such information could be trusted and why. Stoics and Epicureans still talked about the senses, but they often relied on certain established notions and theories, which became cloaked in new language. Stoicism favoured a physicalist theory, which claims that only bodies can act upon bodies (*Stoicorum Veterum Fragmenta* I.90 Arnim).[55] This is why they postulated an omnipresent *pneuma* that connects everything; even the human soul owes its material nature to *pneuma*. Sight and hearing still have first place, as their terminology based on the metaphor of images (*phantasia*) shows; the sense of smell comes a good third, but all are discussed almost exclusively in relation to problems concerning how we know anything and how reliable this knowledge is.[56] Post-Hellenistic theories of perception broadly look like variations and adaptations of Aristotelian ideas. The emphasis remained on the mechanism of vision.

When the Stoic emperor Marcus Aurelius comments on body odour in the late second century, there is no hint that he is interested in the mechanism of smell (*Meditations* 5.28) "Don't be irritated at people's smell or bad breath. What's the point? With that mouth, with those armpits, they're going to produce that odor".[57] The observation is part of a moral discussion and how to achieve self-control and equanimity. Physics had become fully subsumed under ethics.

Conclusion

In this brief and selective review of theories on smell and their evolution I have argued that, despite growing sophistication of their explanations, ancient philosophers remained

54 Sharples' translations (1985: 195).

55 Main text in Cicero, *Academics* 1.39, Sextus Empiricus, *Against the Mathematicians* 8.263 and Nemesius 78,7–79,2 (Long & Sedley 45A, B and C respectively).

56 For a convenient and clear account of Stoic epistemology see Hankinson (2003).

57 Translation: Hays (2003: 62).

inconclusive regarding the exact nature of the sense of smell. This should not surprise us. Smell is probably the most enigmatic among our senses and its secrets are still being uncovered, despite major scientific advances in understanding its complexity since the early twentieth century.[58]

Presocratic theories are characterized by a mechanical and empirical approach, in which the mechanism they favoured makes use of two crucial notions: contact and compatibility. In other words, perception is almost without exception the result of physical interaction and assumes a certain affinity between sense organ and object. The exact *physical* nature of odours as distinct from the objects producing them remained obscure (even the language reflects this). As to compatibility, they all made their case by analogy rather than proof. Empedocles postulated a "fit" between object and sense organ; Anaxagoras presented perception as the result of a "clash" caused by contrast; and Democritus made perception depend on some kind of "symmetry". Aristotle and his followers built a model that used a novel concept of assimilation between organ and object as the main explanatory factor, assuming a *potential* for them to become similar. The Hellenistic perspective was strongly dictated by epistemological and ethical concerns, focusing on puzzles around deceptive appearances and how true knowledge can support a good life. This explains the emphasis on vision, as the Stoic and Epicurean core terms illustrate: both *phantasia* (image) and *idea* (form) are linked to visual appearance.

Unlike today, when smell is explained as both physiological and cultural,[59] ancient thinkers were mostly, if not exclusively, focused on the physical side of the perceptual process. Their aim was to establish the nature and mechanism of the "information" transfer from odoriferous objects *to* the senses and, next, how this led to knowledge about the world. For the sense of smell it is a particularly thorny problem to establish its epistemic value, since description of its properties and mechanism could not disentangle satisfactorily odours from tangible objects. No one was able to probe the perceptual process beyond what is accessible to the senses. The perplexing nature of smell and odours could not be fully unlocked by more complex models. In other words, while theories of smell kept evolving, they did not progress in equal measure.

58 Watson (2000), Herz (2007), Shepherd (2012). See also Introduction p. 8.

59 See, for example, R. Herz (2012), who illustrates the role of cultural influences on our attitude towards certain smells, which in essence do not differ greatly, yet are judged very differently due to context and cultural appreciation (e.g. vomit vs. smelly cheese).

3

DIVINE SCENTS AND PRESENCE

Ashley Clements

> The Assembly Herald, through aromatics (διὰ θυμιαμάτων) summoning up divine things (τὰ θεῖα), drew like to like (εἵλκε τοῖς ὁμοίοις τὰ ὅμοια), so that through the presence of them (διὰ τῆς τούτων παρουσίας) any Athenians having something good to say may give their advice.[1]

Classical Athens, it is often said, was a "city of words".[2] Yet the focal experience of collective political debate in the democratic city, the Athenian citizen Assembly, was, in sensory terms, marked first not by sounds, but by smells, and ratified not by the presence of citizens, but by the presence of gods. Before any official speech was heard at a meeting of the Assembly, it was the aroma of incense, alluded to here by the Scholiast (an anonymous ancient commentator) on a speech of the fourth-century BCE orator Aeschines, that ensured the gods would listen to the subsequent curses and prayers addressed to them and respond favourably. The Scholiast's later elaboration of this essential prefatory rite reveals an intriguing set of assumptions about the relation of smells and the gods that underpinned many such everyday rituals of Greek religious life. Most strikingly, for a culture full of anthropomorphic deities, it assumes that if the odours of Greek sacrifice were efficacious in calling up the gods, that efficacy inhered in the fact that sacrificial aromas – quintessentially *dis*embodied things – were, in some sense, things "equivalent" (ὅμοια) to the divinities they were intended to attract. It thereby also implies that the atmosphere of divine benevolence that such odours were perceived to effect here, as at other similarly sacralized sites, was one in which divine scents and presence were commingled, and where the perception of "divine things" took place in and through the auratic medium of smell.[3]

In this chapter I set out to explore in a variety of literary contexts the different ways in which the Greeks used the symbolic efficacy of smells to construct divinity, and evoke, as well as invoke, divine presence. As the last chapter demonstrated, smell is the sense both of binary judgements (its effects registered primarily in terms of the polar extremes of attraction or disgust), but also of characteristic "incompleteness", bringing with it an indeterminacy that transcends boundaries, permeates bodily limits, and effects a unity of perceiver and perceived, a taking "over by otherness", or

1 Σ *ad* Aeschines, 1.23, discussed also by Naiden (2013: 118).
2 See, for example, Goldhill (1987: 57).
3 Presence of the gods at sacrifices: Sissa and Detienne (2000: 176–78).

an atmosphere of something shared.[4] It is a medium that both physicalizes and de-physicalizes; and as such, for a range of Greek writers, constitutes a potent and ambivalent symbolic register ripe for exploitation in the wider debate about the nature of the gods that characterizes Greek anthropomorphism.[5] Indeed, as we shall see, in its unique capacity simultaneously to bring together and draw apart the corporeal and the incorporeal, the olfactory enacts an ontological ambivalence that is intrinsic to the very notion of "divine corporeality".[6]

I begin by asking what it means to smell in the Homeric conception of an "animic" world. As Nagy has shown, this is a world in which breath and the winds are coextensive, and where thought and perception take place in and through a mingling of internal and external flows that are the medium of life.[7] Sarpedon's swoon in the *Iliad* illustrates this interpenetration of the internal and external, which is also an exchange between the human and divine (5.696–98): "his *psychē* ['breath-soul'] left him and mist spread over his eyes, / then he breathed again and the breath of Boreas [the North Wind] around him / revived him, breathing upon him who had grievously breathed forth his *thumos* ['spirit, passion']".[8] The logic of this mingling of wind and breath is explicitly set out in the *Odyssey* (4.568), where in the idyllic afterlife of Elysium the gusts of Zephyrus (the West Wind), on Nagy's translation, literally "reanimate (ἀναψύχειν) humans". In an enlightening discussion of this passage, Nagy has pointed out that the μένος (*menos*) ("vital power") of men is itself breathed into the body of the heroes by a god: "it is etymologically a *reminding*", he writes, "the god *reminds* the hero to breathe".[9] In this epic way of being in the world, wind that is divine is associated with the movement of breath, and breath with consciousness, perception and life. Yet just as breath is the medium of all these things, so smell, *itself* a form of "breath" (ἀϋτμή) and hence something "breathed out" as well as "breathed in" (πνέω/-είω), constitutes a fundamental mode of experiencing the divine in the wider corporeal system through which the gods are conceptualized, experienced and recognized.[10] Indeed, the

4 Characteristic "incompleteness": Gell (1977: 27, 29); Howes (1987); taking "over by otherness": see Adorno and Horkheimer (1972: 184): "When we see we remain what we are; but when we smell we are taken over by otherness."

5 See Redfield (1994: 247), who notes, in more general terms, that the Homeric gods are not presented as "fixed foundations; they are more like recurrent dilemmas".

6 On the constitutive contradictions of Greek anthropomorphism, see Vernant (1989: 22–23), who notes the place of the "olfactory and tactile senses" in the "symbolic system" of the corporeal through which Greek human–divine relations take place. See especially 23: on the "double figures of the same and other, of the near and far, of contact and separation" that characterize the ambivalence at the heart of this system.

7 Nagy (1999).

8 Further discussion of this example, see Onians (1951: 93).

9 Nagy (1999: 47); cf. Vernant (1989: 29).

10 "Corporeal system" see n.6; breath as a medium of perception, see Onians (1951: 69–75, 76–79) (sight and hearing), 74 (smell); and smell as breath (ἀϋτμή) (*autmē*) itself: *Iliad* 14.174 (ambrosial oil); *Odyssey,* 12.369 (of the sweet smell of fat); ἀϋτμή (*autmē*) of breath laboured in exertion, *Iliad* 23.765; of the winds, *Odyssey* 3.289; ambrosia "breathing (out) its exceedingly pleasant smell" (ἡδὺ μάλα πνείουσαν), *Odyssey* 4.445–46; perception of the divine in "organic consciousness": Vernant (1989) 29, cf. 23 for the olfactory register with p.31 for the divine plenitude of the gods referred to in Homer's beautification scenes (as at *Iliad* 14.170–77, which features ambrosial, i.e. fragrant, unguents). Cf. Burkert (1997: 19): "ever since Homer, the root *thes*-remains in connection with *theos*; and it points to an experience of the extraordinary, especially to smells, noises, and voices encountered in the range of seers and singers."

thought patterns of early Greek literature implicitly reveal that if it seems that the sense of smell "comes into play most at moments when the other senses are in suspense", as Gell has argued, this is because smell, like the wind which in Homer also is breath, is what we perceive *in*.[11] It is perhaps telling that long before Homer, the Greek verb, νοεῖν (*noein*), "to recognize", likely originally meant "to sniff", and no less intriguing that the word θυμός (*thumos*) ("spirit, passion") itself is thought to have once denoted something considered perceptible by smell.[12]

The world the epic pictures is divided between the domains of earth, air (ἀήρ) and aither.[13] Aither is the abode of the gods at vast remove from humans; humanity inhabits the earth in the medium of air (ἀήρ). Just as air is the medium of the "mingling" of the divine with humans, so reciprocally it is the zone through which the fires and hearths that give off sacrificial smoke effect communication between men and gods. Unlike the landscapes of modernity with their tall factory chimneys, which, as Ingold has argued, confine and channel smoke into the upper sky, "proclaim[ing] the absolute separation of earth and sky at the same time as … hiding away the points of disruption where fires actually burn", the human and divine realms of Greek antiquity were brought together through constant exhalations of smoke and smell.[14] Indeed, according to the comic poet Pherecrates, it was ever designed to be thus: so that gods would not have to lurk around altars, Zeus made "one giant chimney" (καπνοδόκην μεγάλην πάνυ) (fr. 150 KA), which, presumably, simply was the sky.[15]

Pherecrates' image builds upon the ancient idea, much exploited by fifth-century comedy and later Greek writers alike (as we shall see), of hungry gods who feed on the smells of sacrifice.[16] But it also highlights the ubiquitous minglings of the domains of mortals and of gods and the central role of sacrifice in bridging the divide separating them, which in the earliest myth is constructed in terms of a culinary code effected by fire. In Hesiod's story of the primal division between men and gods at *Theogony* 535ff.,

11 Gell (1977: 28). An easy illustration of divine fragrance at moments of the suspension – or overload – of the other senses: *Homeric Hymn to Demeter* 276–80, where the leakage of Demeter's unearthly scent accompanies the blinding light of her divine radiance as she sheds her human guise. I draw upon Ingold's (2007: S29) observations on the feeling of "commingling" with processes and flux of the world that constitutes the existential precondition of perception and the experience of discrete "materialized things" one can be set off against: "To feel the wind", he writes "is to experience this commingling. While we did not touch it, we touched *in* it. […] what goes for tactile perception goes for visual and auditory perception as well. […] As we touch *in* the wind, so we see *in* the sky."

12 νοεῖν (*noein*) and smell: Von Fritz (1943: 92–93); for a different view, Onians (1951: 82); to νοεῖν (*noein*) is by no means dependent only upon smell in Homer, but the sense of recognizing the essence of a situation irrespective of its appearance is still central to its meaning even here; θυμός (*thumos*) and scent: Levin (1971: 37): "presumably an exhalation that grew much stronger in moments of emotion and differed recognizably in each person." Cf. the "smell of angry women" at Aristophanes, *Lysistrata* 686–87 with Martin (1987) for the Lemnian intertext.

13 Nagy (1999).

14 Ingold (2007: S34); (2011: 123).

15 The conception of an open sky clearly also informs the plot of Aristophanes' *Birds*. But for comparably comic but opposite rationalizing images of heaven as an enclosed space, a hemispherical baking cover, πνιγεύς (*pnigeus*), literally, a "choker", and men as coals within it, cf. Aristophanes, *Clouds* 95–96, which may or may not allude to the ideas of Meton or Hippon. Dover (1970: ad loc.).

16 Kirk (1990: 10, 13); cf. Seaford (2004: 73), both contrasting the Greek with the more ancient Mesopotamian epic tradition on this point.

Zeus is faced with deciding the gods' share of a great ox at the behest of the trickster Prometheus. Here, Zeus confounds the titan's attempts at deceptively honouring men over the gods by knowingly choosing for the god's share of the feast (δαίς) the insubstantial portion, the visually enticing fat (ἀργὸς δημός, 541) which melts and evaporates when cooked, and which, in Prometheus' contrivance, conceals at its centre merely the bare thigh bones of the ox. Yet by so doing he performs a categorical division; for whilst, by knowingly opting for the deceptive share, Zeus seems complicit in Prometheus' design to favour men with the edible "meat and entrails rich with fat" (σάρκάς τε καὶ ἔγκατα πίονα δημῷ, 538) concealed by the titan in the unappetizing stomach of the animal, he in truth affords them only that share which deteriorates and rots, and so implicitly seals mankind's mortality.[17] "Ever since then", the poet adds, "the tribes of mortals upon the earth / burn white bones upon fragrant (θυήεις) altars for the immortals" (*Theogony*, 556–57), thus glossing this myth as an aetiology specifically of sacrifice. But the real emphasis of Hesiod's story is on the supremacy of Zeus in the cycle of deceptions that characterizes the divine struggle over power of the larger narrative and so on the act of sacrifice as a primal site of contestation and deception.[18] Hence whilst Hesiod's myth described the definitive distinction drawn (and subsequently ever redrawn in ritual according to the poet's final aside) between mortal and immortal by the primal division at the origin of sacrifice, the issue – left unanswered by his text – of what the gods "ever since then" actually drew from their fatty share, became a site for raising questions not only about the deceptive economy of sacrifice but also about the ontology of the gods and, specifically, the limits of their anthropomorphism.[19]

Homer's gods, for instance, certainly expect κνίση (*knisē*) (the steam of sacrifice, or, in solid form, the fat), now no longer regarded as their "unequal share" (ἑτερόζηλος μοῖρα, Hesiod, *Theogony,* 544) but rather their honorific portion (γέρας), which, alongside libations, constitutes their "fair or equal feast" (δαὶς ἐΐση, *Iliad*, 4.48–49).[20] But if Hesiod's portrayal of a pre-sacrifice Zeus presupposed an ancient desire amongst the gods to consume meat just as they once did, and men do now, for ever more memorialized (and problematized) by an odiferous share, Homer's treatment of sacrifice seems to limit the implication that the gods therefore draw their sustenance, rather than

17 The glistening fat is in Hesiod first called δημός (*dēmos*), and then, more specifically, ἄλειφαρ (*aleiphar*), grease, or oil that is used as an unguent; but in Aeschylus' version (*Prometheus Bound* 496), it is called κνίση (*knisē*), in accordance with the Homeric tradition. See Onians (1951: 280) on the associations of ἄλειφαρ (*aleiphar*) with life.

18 See Stocking (2009: 119, 142–55).

19 Cf. Burkert (1985: 57): " … all that reaches to the sky is the fatty vapour rising in smoke; to imagine what the gods could possibly do with this leads unfailingly to burlesque. The ritual simply does not fit the anthropomorphic mythology of the gods." Cf. Kirk (1990) and my n. 21.

20 For sacrifice as a feast for the gods, see in addition to *Iliad* 4.48–49 (= 24.69–70), 9.535 which refers to the gods devouring hecatombs burnt to them, which is also, as Griffiths (1980: 187, esp. n.22) notes, an allusion to the past. See Hesiod, fr. 1 (M–W) and *Odyssey*, 7.201ff for the communal feasting of gods and men in former times. For a later characterization of κνίση (*knisē*) received by divine nostrils as a "feast" for the gods, see Diogenes Laertius, 4.7.56 where the dying Bion is said to have "feasted the nostrils of the gods over hearth, and altars, and table, with fatty savour (κνίση), and fat, and incense" (ἐσχάρης ὕπερ βωμῶν τε καὶ τραπέζης κνίσῃ, λίπει, θυλήμασιν θεῶν ἔδαισε ῥῖνας).

their honour, from the smell of κνίση.[21] Certainly, his gods still travel to receive, or feast on (δαίνυμαι), a share of the hecatombs offered by men at the edges of the known world, the Aithiopes (*Iliad* 23. 205–7; *Odyssey* 1.22–26) and the Phaeacians (*Odyssey* 7.201–6), and have similarly feasted alongside mortals in the recent past (*Iliad* 9.535). But on the rare occasion that the poet portrays them eating in divine contexts, they consume not the κνίση (*knisē*) that individual gods come to the human world to receive (*Iliad* 1.66–67; *Odyssey* 3.435–36), or that eddies skyward with the sacrificial smoke (*Iliad* 1.315–17), but the divine foods of ambrosia and nectar. Even then, ambrosia is explicitly consumed just twice in the *Odyssey* (5.93, 199), where it is expressly contrasted with mortal food, and not at all in the *Iliad*, where, instead, nectar is drunk (1.597–604, 4.1–4). This is quite unlike κνίση (*knisē*), which, in the *Odyssey*, can just as well describe the stuffs and smells of human feasting (*Odyssey* 10.10, 17.270).

In the ambivalences of this Hesiodic and Homeric picture lie the epic grounds for Lucian's much later satirical criticism of the theology of sacrifice in *On Sacrifices* (*De Sacrificiis*) 9. Quoting Homer (*Iliad* 1.317), he pictures distinctly carnal gods who:

> … look down to earth and scan carefully in all directions stooping down to see if they can see a fire that has been lit, or sacrificial aroma (κνίση) drifting up to them "whirling around with smoke". If anybody makes a sacrifice, they feast, all opening their gullets as wide as possible for the smoke, and drinking the blood that is poured out on the altars, just like flies. But if they dine at home, their meal consists of nectar and ambrosia.[22]

Yet if it was precisely to avoid such defamatory vistas of divine carnality that Homer de-emphasized the gods' specifically culinary interest in κνίση (*knisē*), there are nonetheless suggestive conceptual continuities between his divine foodstuffs and sacrificial fat that reflect the modelling of the gods' food on the distinctive ontological properties of the κνίση (*knisē*) (meant here as both fat and odour) that other writers like Lucian claimed they consumed.[23] Indeed, following Vernant, we might put this another way: just as it is true that the anthropomorphic nature of the gods is not so much conceived of in the image of the human body, as reflected in the human body's momentary vitality in which it is possible to glimpse the superlative vitality of the divine, so it is also true that ontological dimensions of the source of that divine vitality – the gods' ambrosia – are likewise refracted through the nature of the substance that men associate with life, the fat, either

21 Kirk (1990: 10–11) identifies this tendency as part of a strategy of "decarnalizing" the gods, and suggests it belongs to part of an ultimately unsuccessful attempt at "deanthropomorphisation"; Hitch (2009: 109) notes *Iliad* 4.48–49 and 24.69–70, as "one of the rare suggestions in the poem that the gods 'eat' the sacrificial offerings". Seaford (2004: 73), Ekroth (2008a: esp. 93) (who elides the comic tradition), and Versnel (2011) all purge the Homeric gods of their hunger for meat placated through odour. Sissa and Detienne (2000: 74–75), emphasizing the cuts of raw meat placed on the gods' κνίση (*knisē*) at *Iliad* 1.461, and Naiden (2013: 112 n.171), drawing upon the portrayal of displeased gods not dividing amongst themselves as if meat at a feast sacrificial smell at *Iliad* 8.548, 550–52 (lines unattested in the MSS and rejected by Leaf and Bayfield (1971: ad loc.) and others), and Stocking (2009: 119), however all disagree, arguing that the Homeric gods continue to desire and consume meat but now via odour alone.

22 Translation: Harmon (1913) modified.

23 Cf. Onians (1951: 292–95), who similarly suggests that ambrosia and nectar are divine equivalents of the fat and wine (libations) offered to the gods by mortals.

called δημός (*dēmos*), ἄλειφαρ (*aleiphar*) or κνίση (*knisē*), that is associated with vitality, regeneration and immortality.[24] So it is that ambrosia, whose name means "immortality" (it is formed from ἄμβροτος (*ambrotos*), "not-mortal"), not only provides the gods with their solid food (*Odyssey* 5.93–94), but also the divine unguent that when rubbed into the skin replenishes their appearance and beautifies them with its divine "breath" (*Iliad* 14.170–77; *Homeric Hymn to Aphrodite* 61–63; ambrosia's sweet "breath": *Odyssey* 4.446). It is this stuff that Demeter uses to immortalize the mortal baby Demophon by repeatedly anointing him with the oil-like substance whilst breathing on him (*Homeric Hymn to Demeter* 235–40), and the substance that Thetis sprinkles into the nostrils of the dead Patroklos to ensure that his corpse will not decay (*Iliad* 19.38–39; cf. *Iliad* 23.186–87). For in all these guises – as a solid, a liquid and a smell – its unique power is to negate the effects of temporality, to collapse time.[25] But if such episodes reveal an ontological indeterminacy to ambrosia this merely recapitulates the indeterminacy of κνίση (*knisē*), which is marked for its ability when heated not only to transcend these physical limits but also, in so doing, enact the processes of generation, degeneration and transformation that are ontologically prior to the formation of such states: that is, not simply to embody vitality as a congelate ("fat"), but also to enact in its vital, processual, properties, the powers of transformation that transcend ontological separation of the solid and non-solid, physical and non-physical, and constitute and unite the ongoing processes of life.[26] Here, the failed sacrifice of the prophet Tiresias in Sophocles' *Antigone* 1006–11 proves revealing:

> from my offerings Hephaistus did not blaze (ἔλαμπεν), but a dank grease (κηκίς), oozing (μυδῶσα) from the thigh-bones wrapped in fat (μηρίων), melted (ἐτήκετο) and smoked and spluttered upon the embers; the gall was scattered to the air; and the streaming thigh-offerings (καταρρυεῖς μηροὶ) lay bared of the fat (πιμελῆς) that had been wrapped around them.

In emphatic contrast to Homer's picture of the "sacrificial fat eddying skyward with the smoke" (*Iliad* 1.317) and Lucian's kindred later portrayal of the "divine and holy *knisē* separating upward and slowly dissipating into heaven itself" (ἡ δὲ κνῖσα θεσπέσιος καὶ ἱεροπρεπὴς χωρεῖ ἄνω καὶ εἰς αὐτὸν τὸν οὐρανὸν ἠρέμα διασκίδναται, *On Sacrifices* 13), Tiresias' description offers not a misdirection of sweet sacrificial fumes to human nostrils as at *Odyssey* 12.369, but an incomplete and miasmic transformation of the gods' share of sacrifice (pointedly here called πιμελή (*pimelē*) and κηκίς (*kēkis*), not κνίση (*knisē*)).[27] Its divine refusal is ensured by the gods' withholding of Hephaistus, fire, which creates of this sacrifice instead an offering that is implicitly marked for its malodoriousness; for this description of the decomposing (μυδῶσα) sacrificial fat, which, as it abortively melts (or rots, ἐτήκετο), causes the thighs to stream (literally "run down") before dripping onto the embers below to smoke and spit (κἄτυφε κἀνέπτυε),[28] mirrors

24 Vernant (1989: 28); Onians (1951: 208–11, 279–81).

25 Sissa and Detienne (2000: 80). Further, see Introduction, p. 4.

26 Onians (1951: 255), for the pale liquifying fat as the element of the body that issues forth as tears and sweat, and hence that the part of us that transcends boundaries and leaks out.

27 πιμελή (*pimelē*) in particular is used nowhere else in poetry, see Griffith (1999: *ad* 1010).

28 For the equivalency of κνίση (*knisē*) understood as solid, unrendered, i.e., soft, animal fat (lard) which melts and πιμελή (*pimelē*), see the scholia on *Iliad* 21.363.

the putrifying corpse of Polyneices (cf. μυδῶν, 410; cf. ἐτήκετο, 906),[29] which, like these revealed thigh-bones, similarly lies uncovered of its proscribed ritual covering and gives off an "unholy smell" (ἀνόσιος ὀδμή, 1083; cf. 1071).[30] Thus this fat (πιμελή) perversely comes to resemble the flesh that rots – the corruptible portion of sacrifice in the Hesiodic myth meant for men not the gods – as all the signs of divine displeasure are here told through one possible story of the processual properties of fat, as it oozes, melts and slides away, to leave only a terrible stench.[31]

Yet if our glimpses of ambrosia thus recapitulate the properties of fat burnt to the gods, its frequent partner, nectar, mixed in the gods' kraters as a fragrant beverage analogous to wine (*Iliad* 1.598; *Odyssey* 5.93), is in origin perhaps even more closely anchored to smell. Its name has been plausibly interpreted as deriving from a Semitic term used for incense (a reflexive participle (nqTr), of the triconsonantal root (qTr) "fume, waft upwards as smoke or vapour"), and thus its defining characteristic is thought to have been fragrance instilled by aromatics such as myrrh.[32] The meanings of the adjectival forms of ambrosia and nectar further support this inference, for whilst ἀμβρόσιος (*ambrosios*) ("ambrosial") and νεκτάρεος (*nectareos*) ("redolent of nectar") both denote "immortal" they also invariably connote "fragrant".[33]

Thus if it is indeed true that Homer's gods were rendered less "carnate" by his poems' de-emphasis of the gods' consumption of boundary-transcending κνίση (*knisē*), the divine foods eaten in its place themselves nonetheless implicitly reflected the wider symbolic economy that used fragrance to mark off the gods in culinary terms from men. It was therefore quite apt that, for Homer's later Greek readers, the very discarnality of the gods could be emphasized by the implication that genuine gods do in fact subsist only on smells. When, in 340 BCE, Philip II of Macedon wanted to put a certain Menekrates, a hubristic court physician who called himself Zeus (as the only one responsible for the life of men, thereby conjuring from the infinitive ζῆν (*zēn*), a pun on an accusative form of the name Zeus), in his place, for instance, all that he needed to do was wryly to serve him his due divine honours – a platter of first fruits served up on a cult table, and a dinner of aromatics.[34]

That the divine consumption of smells could indeed establish the distinct ontology of the gods is also central to the *Homeric Hymn to Hermes*. But this text reveals that in the post-Promethean world the division between men and gods could be recapitulated within

29 For the language of melting and vitality, see Onians (1951: 201–14).

30 Cf. Griffith (1999: *ad* 1006–11); for the implicit parallel between corpse and sacrifice elevated to the actual pollution of the city's altars with pieces of the corpse, cf. 1016–18; parallel with the wrapped thigh-bones of sacrifice and Greek funerary practices of wrapping bones in fat (δημός (*dēmos*) not κνίση (*knisē*)) prior to burial, see *Iliad* 23.243. To this failed miasmic sacrifice of the *Antigone*, contrast the successful holocaust of incense at Soph. fr. 370. "And fire blazes bright (λάμπει) on the altar in the street as it sends up in vapour (ἀτμίζων) from drops of myrrh, exotic scents." (Trans. Lloyd-Jones (1996) modified.) For the relationship between transformation, mixture and smell, cf. Plato, *Timaeus* 66d–e; Theophrastus, *On Odours* 1.1. Transformation or coming-in-to-being (that similarly marks the transcending of boundaries) in divine epiphany and the marker of smell: *Homeric Hymn to Dionysus* 33–50; *Homeric Hymn to Demeter* 275–80; cf. the birth of Apollo at *Theognis*. 1.5–10. Cf. Howes (1987).

31 For the opposite poles of corruptible flesh and death versus incorruptible spices and perfumed substances and "true life" as the exclusive preserve of the gods, see Detienne (1994: 51).

32 Levin (1971: 31–50).

33 Shelmerdine (1995: 99).

34 Versnel (2011: 439–43) discusses this anecdote, recorded in Athenaeus, 289A–F and Aelian, *Varia Historia*, 12.51 (cf. Plutarch, *Agesilaus* 21), and notes the ambivalence of incense in constructing or deconstructing divinity.

the osmology of sacrifice.[35] Here, as the day-old Hermes, already "desiring meat" (64), prepares what has been variously interpreted as either an anomalous sacrifice to, or a feast for, the other gods, he is tormented by the "sweet smell" (ὀδμή […]ήδεῖα) of roast meat (κρέας) (130–32), thus suffering an olfactory longing that is quintessentially human and that further emphasizes the as-yet indeterminate nature of the god ("even though he was an immortal" (131), the poet emphatically qualifies);[36] for this is the tantalizing odour of meat that is ready to consume – indeed, it is the smell of meat "rich with fat" (κρέα πίονα δημῷ, 120), a phrase which tellingly recalls the meat and entrails (also πίονα δημῷ at Hesiod, *Theogony* 538) Hesiod's Prometheus deceptively reserves as the exclusive share of men.[37] Unambiguous gods, by contrast, as we have seen, are drawn to another smell, κνίση (*knisē*), a scent that to divine nostrils cannot promise meat, but rather is of, or from, itself, since κνίση (*knisē*)-as-odour is an "enfumement" of its own substance, the pure immateriality of what was once a solid (and hence, not so much the smell of something, but the thing itself).[38] Indeed, this distinction perhaps underlies the significance of incense burnt to the gods and entirely consumed by fire. Such divine smells are smells that represent complete de-physicalization; they are, in an important sense, not "incomplete" (that is, they do not simply gesture to something other than themselves); they are instead immaterial realizations.

In the concretizing world of Greek Comedy, by contrast, κνίση (*knisē*) (or κνῖσα (*knisa*)) is made into a sign of imminent feasting for men, and a food source for gods. Long before Lucian's satirical portrait, Old Comedy had unambiguously "carnalized" the gods into beings that do not simply enjoy, but rather, depend upon the smells of sacrifice for their sustenance. They would, Pherecrates claims, spend all their time lurking around altars, if Zeus had not designed the sky in the form of a big chimney (fr. 150 KA). On both the human and divine levels, sacrifice, here, "is about eating", and κνῖσα (*knisa*) is taken by both gods and men to signify a feast to be had (Aristophanes, *Peace* 1050; *Birds* 1716–17) –or not to be had, as, for example, for the uninvited bystanders tortured by its enticing smell in several comedies (Com. Adesp. 608; Aristophanes, *Acharnians* 1044–46) and the gods prevented from receiving their odiferous share by the birds' construction of the airy blockade between heaven and earth ("Cloudcuckooland") in Aristophanes' *Birds* (190–93; cf. *Clouds* 606–23).[39] This comic carnalization of the gods, in turn, laid the ground for jokes about the unfairness of the Hesiodic primal sacrificial division.[40] Both in Pherecrates' *Deserters* (*Automoloi*) (fr. 28 KA), and in Menander's *The Grouch* (*Dyskolos*) (447–53), characters complain that whilst sacrifice is supposed to facilitate commensality between men and the gods, humans either leave the gods only bare

35 Verganos (2011: 22 n.51); (2013) ad loc.; Versnel (2011: 310–11, esp. 310 n.6). For the *Homeric Hymn to Hermes* as a text that like Hesiod's *Theogony* associates sacrifice with deception, see Stocking (2009), who disagrees that Hermes is anomalous amongst the gods in desiring to eat meat.

36 Versnel (2011: 309–73) discusses scholarly interpretations.

37 Verganos (2013: ad loc.).

38 κνίση (*knisē*) is, of course, perceptible and enticing to humans, see *Odyssey* 12.369 for the "sweet breath of κνίση (*knisē*)" (κνίσης … ἡδὺς ἀϋτμή) that envelops Odysseus after his companions sacrifice the cattle of the sun. It is also eaten by men, see *Odyssey* 18.118–19, 20.25–30. But for the desire to eat meat (or fat) as a distinctly human response to it, see Verganos (2011: 22 n.51); (2013: 281), citing Aclepiades of Cyprus, *FGrH* 752 F 1; cf. Ar.'s comic portrayal of Hermes in *Wealth*. For κνίση (*knisē*) as immaterial substance, see *Odyssey* 10.10 where Aeolus' house is said to be full of κνίση (*knisē*), i.e. the fumes of feasting.

39 See Redfield (2012) to whose discussion my treatment of Comedy here is indebted, quote: p. 172.

40 Redfield (2012: 177).

bones, or simply those parts of the animal which are inedible (the tail and the gall bladder).[41] Indeed, Pherecrates stresses the deception by suggesting that the purpose of incense (θύλημα) is simply to mask the absence of meat, offering a characteristically comic cynical reinterpretation of the "fragrant altars" (θυηέτων … βωμῶν) alluded to by Hesiod in his final aiteologizing remark (*Theogony* 556–57).[42] In the *Dyskolos*, by contrast, incense is considered to be most pious because, when burnt, the gods get all of it themselves. That notion surfaces in Antiphanes too (fr. 162 KA), as part of what Detienne has called a "current of fourth-century pietist thought" in which, in opposition to the form of sacrifice involving κνίση/κνῖσα (*knisē*/*knisa*), which emphasizes the gap between mortals and gods and is potentially fraught with mythic implications of deception, the burning of incense – the sharing of pure smells alone, experienced in unison – constitutes the only means of creating true commensality between men and gods.[43]

Yet earlier fifth-century texts also explicitly reflect on the possibility of recognizing divine presence in the fumes of incense. A typically obscure fragment of the philosopher Heraclitus (B67 DK), for instance, builds upon modes of experiencing the divine in contexts of sacrifice to evoke an epiphany of the changing aspect of god:

> God: day and night, winter and summer, war and peace, hunger and saiety. It alters just as whenever, mingled with incense (θύωμα), it is named according to the pleasure of each one.[44]

The simile at the centre of this fragment suggests that the naming that recognizes different sacrificial scents (or, in parallel to the series of opposites given in the first clause, their perceived binary qualities, "pleasant" or "unpleasant"), obfuscates the single divinity whose presence is mingled with them, just as the names that men allocate to the binary opposites of the world ("day and night", "winter and summer") individuate and dichotomize what are really only different manifestations of the same unifying god (or divine principle).[45] Yet in that same naming of the smells of incense "by the pleasure each affords" (or perhaps "according to the pleasure of each perceiver": καθ' ἡδονὴν ἑκάστου), Heraclitus implies, there awaits an "epiphany" of the god in other words.[46] For according to Heraclitus' analogy, every different scent is in fact a distinct manifestation of

41 For an interpretation of the inclusion and significance of these parts in the gods' share of sacrifice during the Classical period, see Ekroth (2008b: 262); (2008a: 88).

42 Lilja (1972: 41, n.4) notes the parallelism.

43 Detienne (1994: 49); see Ekroth (2008a: 102–4) for the grilling of σπλάγχνα (*splanchna*) (entrails eaten by worshippers) on sacrificial altars and the presentation of choice cuts of meat to the gods (raw, on cult tables or in front of cult statues, in the ritual of τραπεζώματα (*trapezōmata*); cooked, alongside other human foods, in the ritual of *theoxenia* and its variants), as additional strategies common to Classical sacrifice designed to negotiate the distance between men and the gods, and counter the deception internal to its mythic structuring.

44 Text and translation: Kahn (1979).

45 For the unity of opposites as a universal divine principle in Heraclitus, see, for example, B57, 51, 47 DK.

46 Cf. Kahn (1979) argues that the missing, i.e. unnamed, subject of the second clause that, when mingled with perfume, is named "according to the pleasure of each one" is implicitly the sacrificial fire, see especially, p. 280: "the text suggests that it is the god himself who appears as fire mingled with incense: the cosmic god has his epiphany in the flame burning on the altar." But the text is not clear: is it the perceptible fire that is given a plurality of names when incense is offered or rather "the god" that imperceptibly mingles with sacrificial scents that come into being once thrown onto the fire?

the single divinity that is mixed with it, the "altered" but nonetheless unified or continuous presence of which is "common" to all:[47] the god whose continuous yet ever-changing presence is manifest in each moment of the coming-into-being of a multitude of smells.

In our early poetic texts, however, the act of naming and the evocative power of named fragrances and redolent things, could also serve as a means by which the divine is called into presence. Sappho 2 is a fragmentary lyric invocation of Aphrodite that seeks to summon the goddess to her temple in Lesbos and into the festivities of her celebrants by evoking the erotic "grace" (χάρις) of her sacred grove as manifest in its richly synaesthetic properties.[48] Prominent amongst these, in one of the two earliest references we have to frankincense in Greek literature, are its divine fragrances.[49]

> …
> Come to me from Crete to this holy temple
> where is your graceful grove
> of apple trees and altars fuming
> with frankincense.
> Wherein cold water makes a clear sound through
> apple boughs, and with roses, the whole place is
> shaded and down from radiant-shaking leaves
> sleep comes dropping.
> Herein a meadow where horses graze
> blooms with spring flowers and breezes
> like honey are breathing…
> Here, O Cyprian, take [garlands?],
> in golden cups gently pour forth
> nectar mingled together with our festivities.[50]

John Updike's 1960 prose poem *Archangel* evokes the omnipresence of the sacred by listing as sacraments all those things which the eponymous divine being has gifted to humans and through which "glimmers" of its beneficence can be felt ("Onyx and split cedar and bronze vessels lowered into still water: these things I offer", his archangel begins, "Porphyry, teakwood, jasmine, and myrrh: these gifts I bring. … ").[51] It is through such sensuous benefactions, by which the χάρις (*charis*) (reciprocal pleasures) of her sacred grove is established, here, too, that Aphrodite is called into presence. In the first extant stanza the goddess is summoned (δεῦρύ μ', "Come to me … "); by the last stanza, she is referred to as present (ἔνθα δὴ σύ, "At this time, you … "), participating in the song, and invited to pour forth nectar – which itself evokes unearthly smell – "mingled with our festivities" (ὀμμεμείχμενον θαλίαισι, 15).[52] What separates these two verses is an evocation of the sacred grove that essentially is Sappho's poem, with its intoxicating imagery and accumulating appeals to scent:[53] the frankincense of altars, the presence of apples and roses, meadows blooming with

47 For the importance of the "common" (ξυνόν) in Heraclitus, see B2 DK. with Kahn (1979: 101–2).
48 See Butler and Purves (2013: 4–5).
49 Burkert (1985: 63); the other reference to frakincense is also in Sappho (44.30).
50 Translation: Carson (2002: 6–7) modified.
51 For Updike, the glorification of these sacraments seems itself to be an act of worship. Updike (1960).
52 Calame (2007: 49–50) sensitively discusses the effect of δεῦρύ μ' and ἔνθα δὴ σύ.
53 McEvilley (1972: 333); Calame (2007: 48).

spring flowers, honied breezes, all these redolent things anticipate and invoke the goddess' climactic bestowal of mingling nectar.[54] Indeed, Sappho's final extant line suggests that the goddess' active presence with which this olfactory seduction culminates will be felt or is perceptible through the uniquely divine fragrance that on her arrival she is invited to dispense.[55] Its "mingling" with the already fragrant festivities, in turn, recalls both the implicit mingling of incense with fire on the frankincense-fuming altars of Sappho's first extant stanza, and the poem's underlying assumption – implicit also to Heraclitus B67 – that the perception of divinity "mingled" with ritual scents can constitute epiphany.[56]

Several later works draw upon the sensuous precedent of Sappho's poem to construct sacred places. But perhaps the most influential is Plato's *Phaedrus*, a text which mobilizes the erotically-charged motifs of Sappho's sacred grove to construct the divinity of its own setting (at 230a6–c5), and which, during the Second Sophistic, was itself reworked by the sophist Philostratus in a work entitled *On Heroes* (*Heroikos*).[57] Here, Philostratus reuses the pastoral focus of Plato's dramatic framework but also the wider association of divinity with odour, also implicit in the *Phaedrus*, in order to create the perfect site for a dialogue about the epiphany of heroes. His site is thus first marked by the sweet scent that is breathed from its lush vines and is immediately revealed to be divine (3.3–4). But his chosen hero, Protesilaos, whose cult was at Elaious, smells still sweeter (indeed, "sweeter than myrtles", 10.2), and even makes garlanded flowers smell better whenever he is around: he "makes manifest" or "reveals" their sweetest scent (ἀποφαίνω, 11.3)[58] – and is, in turn, "revealed" by it. For just as the presence of Aphrodite is to be experienced in the unearthly nectar mingled with her already blooming festivities (for θαλία (*thalia*), etymologically, means "flowering")[59] in Sappho 2, and so, here, in Philostratus' dialogue, the sacred presence of the hero is disclosed in the divinely-infused redolence of ritual odour.

In this tradition, also, perhaps belongs the dying Hippolytus' epiphany of Artemis in the closing moments of Euripides' *Hippolytus* (1391–94).[60] Laid low by Aphrodite in

54 For the attraction of *erōs* to the scents of flowers, see Plato, *Symposium,* 196b: "*erōs* lives among flowers"; for the general eclectic strategy of attracting the gods by ritual scents, cf. the incense-filled Orphic invocations, Pulleyn (1997: Ap.1); and Xenophanes' divinely fragrant feast at B2 DK.

55 Cf. Platt's (2011: 3–4) discussion of Philostratus' use of the "smell of Sappho" – the odour of her text, or rather, her text's use of odour – to create a textual epiphany of Aphrodite in his description of a painting of a statue of Aphrodite at *Imagines* 2.1–3.

56 Divine or semi-divine status is also associated with extraordinary scents in texts dealing with the afterlife. Comparing Pindar's fragrant Orphic evocation of the afterlife at fr. 114 Bowra, which evokes immortality enjoyed by the initiated and is marked for its scents ("Blossoming happiness blooms whole, / [and] a lovely scent spreads over the land, / as they eternally mingle things burnt for fragrance / with far-shining fire on the altars of the gods"), Calame (2007: 53–54) argues that the symbol of "the meadow constantly flowering with seductive scents" found also "in the *Homeric Hymn to Demeter* – meant for adult initiates in search of a better life after death – " constitutes "a space … of success in the process of immortalization; it augurs definitive access to a status approaching that of divine beings". Cf. 54 for the Pindar passage.

57 On Plato's reworking of Sappho 2 to construct the divine setting of the *Phaedrus*, which is marked among other traits, by its sweet smell (230a6–c5), see Pender (2007).

58 Nagy (2001: xxvii).

59 Calame (2007: 49).

60 Cf. Aeschylus, *Prometheus Bound* 114–16; Ar. *Birds* 1715–18; Strobilos Papyrus, CGFP 244.355 Austin: "Apollo and the gods, what a smell!" (although this comic exclaimation may simply mean "My breath!"). Lilja (1972: 25–30) and Parca (1991: 22–25) discuss further examples of the topos.

revenge for his hubristically exclusive worship of her rival Artemis instead, he is finally brought into the presence of his divine patron:

> Ah!
> O breath of fragrance divine (ὦ θεῖον ὀσμῆς πνεῦμα)! Though I am in misfortune/I perceive you and my body's pain is lightened.
> The goddess Artemis is in this place!
>
> trans. Kovacs (1995) modified

In her response to these words, Artemis will go on to underline the mistake that has characterized Hippolytus throughout this play; that is, the error of conflating the anthropomorphic with the human, and thus treating the gods as if indistinguishable from mortals, disdaining one, seeking the companionship of another.[61] "How easily you depart our long allegiance!" (1441), Hippolytus will lament in final realization of the nature of the divine and the true distance underlying any intimacy a mortal might enjoy with a goddess. Yet in this first, climactic, moment of epiphany, even before the goddess has conversed with and left him, that revelation is prefigured in the intensely intimate yet innately other influx of divinity that is a breath of smell.

Like the other smell-epiphanies we have examined, Euripides' use of the motif of epiphany in odour here is intertwined with the salience of aromatics in cult practice, in which not only is incense burned, but also, in concert with the divinely fragrant figures of divine epiphany found in the *Homeric Hymns*, cult statues are garlanded and oiled with fragrant unguents.[62] Indeed, whilst Euripides' audience is afforded the privileged perspective of seeing the dialogue that follows (1395–1439) as taking place between Hippolytus lying onstage and the actor playing Artemis, whose aitherial vantage on the palace roof or the stage crane (*mēchanē*) enacts in physical space the distance that "even in … epiphany" separates the two, it is intrinsic to Hippolytus' human perspective that the goddess remains invisible to him (cf. 86); for him, she is merely a smell, an affect, and a voice, and he, for his part, thus perhaps simply addresses her garlanded statue that stands (newly redolent?) on one side of the stage (as, indeed, he does when he garlands it, at 73–86, with flowers from her sacred meadow).[63]

It is, however, a scene in Aristophanes' *Peace* that gives us our most complex evocation of divine presence enacted through odour in Greek poetry:[64] an eclectic description of all that Peace is, elicited by the aroma of the statue of the goddess, which, freshly unearthed from her imprisonment at the hands of War, is now dragged onstage (520–38) accompanied by her handmaidens, Harvest and Festive Spectating, to a rapturous response:

> TRYGAEUS
>
> My Lady, Bestower of Grapes, how shall I express my greeting? Where can I get a ten-thousand liter word to greet you with? I've got nothing that large of my

61 See, for example, 1395–1439; c.f. 1390.
62 Steiner (2003: 111–12); Osborne (2011: 204).
63 Cf. the Servant's address at 101ff. For the tendency, common to Greek iconism, to read the image as the god, see Osborne (2011: 192–93). Artemis' aitherial vantage and its significance: Dowden (2010: 53–54, quote: p. 53).
64 Tordoff (2011) discusses the programmatic theme of smell in Aristophanes' *Peace*.

own. Greetings, Harvest, and you too, Festive Spectating. What a countenance you've got, dear goddess! And what a scent you breath out (οἷον δὲ πνεῖς), how delightful to my heart, the sweetest, exactly like (ὥσπερ) demobilization and perfume!

HERMES

Not the same as you get from a soldier's knapsack, I take it?

TRYGAEUS

I spit away the most hateful bag of a hateful man.
It smells of oniony vinegar belches,
while she smells of harvest time,
parties, festivals for Dionysus,
pipes, tragedians, songs by Sophocles, delicious thrush meat,
Euripides' *bons mots* –

HERMES

You'll regret telling that lie about her: she doesn't enjoy
a composer of forensic phraselets.

TRYGAEUS

– ivy, a wine strainer, bleating flocks,
the bosoms of women scampering to the fields,
a drunken slave girl, an upturned jug,
and a host of other fine things![65]

Aristophanes' scene fully exploits the unique representational values of the olfactory.[66] Collapsing time as well as the compartmentalization of the senses with its associative and synaesthetic retrieval of past peacetime delights, Trygaeus' smell-induced epiphany vividly re-presents Peace in all her manifold benefactions, revealing a goddess whose presence fully transcends the constraints of her iconic form. Indeed, in its comic reception as olfactory representation, the smell of the cult statue (a scent "exactly like … " οἷον δὲ πνεῖς … ὥσπερ … ; and "redolent of … ") concretizes and disambiguates ("escentualizes") the poetic strategy of simile that is a recurrent vehicle for the evocation of divine presence in early poetic texts, where the question of what the gods are actually "like" is frequently problematized by "the terms of the simile".[67] By contrast, focalized through the nose of Trygaeus, which jumps from simile to abstract idea (or context) to concrete instantiation in search of its quarry ("[a scent] exactly like … demobilisation and

65 Translation: Henderson (1998).

66 For these "representational values" see Rindsbacher (1992: 14–20, 330–31), who builds upon Sperber (1975: 115–19).

67 Stevens (2002: 56–60, 126–33, quote: p. 128) discusses the problem, focusing especially on the image of Athena's descent "like a star" (οἷον δ' ἀστέρα), at *Iliad* 4.75–86, where the question of what is, or should be, seen in Athena's descent (if anything at all), is problematized by the simile form, which accommodates construal both in the senses of "as" and also "like".

perfume … ";[68] "smelling of … harvest, parties … pipes … tragedians … delicious thrush meat"), the effect of Peace's divine aroma affords ample comic juxtapositions but no uncertainty:[69] cleansed of the tear-inducing odour of garlic with which she was formerly annointed (by the Megarians, at 500–3),[70] all that Peace binds together and bestows is now instantly carried back on her divinely fragrant breath. That the goddess, which is to say, her redolent statue (for Peace here is her representation, both olfactory and iconic),[71] is finally "established" (ἱδρύομαι 1091; cf. 923) for the city as a whole with a reciprocal offering of odour (the sacrifice of κνῖσα (*knisa*) at 947ff.), thus merely completes the osphresological "presencing" begun in these lines, which brings Peace to her celebrants, and those celebrants to Peace, through the whiff of something ineffably divine.

Conclusion

Trygaeus' comic epiphany of Peace draws together several of the themes we have explored in this chapter. But it also further demonstrates the representational plenitude of odour as a modality of divine presence that necessarily transcends and exceeds the bounds of anthropomorphic representation. The superlative scents by which divinity is disclosed in epiphany in literature and cult, and which cult statuary of the fifth century replicates in perfumes and oil, are here revealed to enact in particularly acute form the ambivalences of the corporeal system identified by Vernant, through which divine plenitude is conceptualized and experienced, and which, even in moments of epiphany, presents the gods "under the double figures of the same and other, of the near and far, of contact and separation".[72] From Hesiod's *Theogony* on, one way in which this double-figuration of the divine is evoked is through the symbolic ambivalence of odour and the boundary-crossing and processual ontology of things fragrant. But the textual and ritual fragrances of Sappho, the fifth-century stage, and later Greek writers, also explore the perception and presence of the divine in and through the body to render the sacred an auratic phenomenon: an "atmosphere 'tinctured' through the presence" of something, which evokes the intimacy of the perceiver and the perceived, in and on the breath itself (hence not just an atmosphere, but an *atmos-sphaira*, in the etymological sense of an all-enveloping "sphere of smell").[73] As potentially elusive as Heraclitus suggests such divine presence may turn out to be for those who fail fully to perceive what is thus "shared", here, perhaps most clearly of all, odour emerges as an experience of divinity, and divinity, in turn, as an experience of odour.

68 μύρον is both the perfumed oil of the statue and metonymically sensual pleasure more generally; hence the image can be conjunctive as well as disjunctive. *Pace* Silk (2000: 147).

69 For Aristophanes' eclectic smells, see Silk (2000: 146–48).

70 For Megarian garlic as the most volatile of the ingredients comprising the savoury mash that War wishes to make of the Greek states, see 242–90, especially 256–58.

71 Slater (2002: 123) notes that Peace "can only be represented as a representation".

72 Vernant (1989: 23).

73 For the concept of atmosphere in these terms, see Böhme (1993), quote: p.121.

4

SMELLING TREES, FLOWERS AND HERBS IN THE ANCIENT WORLD

Jane Draycott

Introduction

Quite apart from the intellectualizing elite experiences of divine auras in the religious sphere, the inhabitants of the ancient world encountered a variety of specimens of trees, flowers and herbs on a regular – perhaps even a daily – basis.[1] Such encounters took place in both rural and urban environments, involving not only those plants growing freely out in the wild, but also those that were cultivated in anything from a terracotta pot to a peristyle garden, as well as through exposure to numerous products deriving from them in the form of food and drink, garlands, wreaths and chaplets, medicaments, perfumes, unguents and cosmetics, and even home furnishings. In theory, utilizing literary, documentary and archaeological evidence can provide a wealth of information regarding not only the specifics of these plants, but also their smells and the ways in which the ancient Greeks and Romans experienced and responded to these smells, whether positively (as scents, fragrances or perfumes) or negatively (as odours, stenches or stinks). In practice, however, reconstructing the smells that these plants exuded, not to mention the ways in which the ancients experienced and so responded to them, is much more difficult – perhaps, ultimately, impossible.[2] What is clear is that there are fundamental differences between the ways in which the ancient Greeks and Romans experienced the smells of plants, and the ways in which we do.

In this chapter I will assess the literary, documentary and archaeological evidence for smelling trees, flowers and herbs in the ancient world. I will attempt to establish how the ancient Greeks and Romans understood, classified and categorized the smells of plants, and how the expression and dissemination of these understandings, classifications and categorizations varied according to the context in which they were being used. I will investigate the ways in which the smells of certain plants were thought to affect those who smelled them, and how these effects could be harnessed and deliberately deployed to serve both positive and negative purposes. I will also develop some aspects of the last chapter and explore the deeper meanings that were attached to certain species of plant and their smells, and how these facilitated their uses in public and private ritual activities.

1 On the interactions of the ancient Greeks and Romans with their natural environments see Hughes (1996); and Thommen (2012: 29–32, 76–78).

2 On the inherent difficulties of reconstructing sensory experiences, and olfactory experiences in particular, see Howes (2005: 3); Drobnick (2006: 1).

Literary, documentary and archaeological evidence for smelling trees, flowers and herbs

References to trees, flowers and herbs abound in works of ancient Greek and Latin literature from all literary genres, as well as in ancient Greek and Latin documentary writings found on papyri, ostraca and wax and wooden tablets. However, as is only to be expected, the nature of these references varies dramatically depending upon the context in which they appear, and reconstructing smells – both pleasant and unpleasant – from them can be problematic.[3]

One would think that the logical place to start would be with ancient Greek and Roman agricultural treatises such as Xenophon's *Estate Manager*, Cato the Elder's *On Agriculture*, Varro's *On Agriculture*, Columella's *On Agriculture*, Palladius' *On Agriculture* and the Byzantine treatise *Farm Work*, but since these were written or compiled with a view to instructing landowners they are generally didactic rather than descriptive.[4] Additionally, it is not always easy to identify with any hope of accuracy any ancient plant's modern counterpart from the information given in the text.[5] Ancient Greek and Roman technical treatises such as Theophrastus' *On the History of Plants* and *On the Causes of Plants*, and Pliny the Elder's *Natural History* are more promising, as these compile inventories of the plants with which the writers and/or their contemporaries were familiar, and provide comprehensive descriptions of each specimen's appearance, properties and potential uses.[6] Pliny goes so far as to offer the reader an insight into his process: Antonius Castor, considered by Pliny to be the foremost botanist of his age, and who cultivated a wide variety of plants in what seems to have been a precursor to the modern botanic or physic garden, allowed him to examine them (an examination which presumably incorporated an element of sniffing) as a means of assisting with his research and writing of the *Natural History*.[7] A plant's smell was significant, not just as a means of identifying the specimen correctly, but also because a specimen's smell was itself a property and, as such, could be useful: unlike today, a plant's properties were in antiquity far more important than its appearance. Unfortunately for the modern reader, however, Pliny more commonly describes these smells as "agreeable" (*iucundus*), "pungent" (*acutus*), "strong" (*vis*), or "weak" (*dilutus*), rather than as being "like" the smell of something else. These adjectives denote qualities that are by no means restricted to smell, and their usage reminds us, as earlier chapters have already argued, that ancient olfactory vocabulary, at least in technical treatises, was fairly imprecise.[8] This does, however, indicate that ancient readers of these technical treatises would have been

3 On the separation of smells into "pleasant" and "unpleasant" see Plato, *Timaeus* 67A, discussed at length in Baltussen, this volume, pp. 39–40.

4 On ancient Greek agricultural writing see Isager and Skydsgaard (1992: 3–8), and on ancient Roman agricultural writing see White (1970: 14–41).

5 On the process of identifying ancient trees, flowers and herbs see Renfrew (1973). See discussion of this with reference to *amaracus*/sweet marjoram in Butler, this volume, p. 75.

6 On Theophrastus' approach to natural history, see French (1994: 92–98). On Pliny, see Beagon (1992: 26–54).

7 Pliny, *Natural History* 25.9. Unfortunately, none of Antonius Castor's botanical treatises (if he did in fact write any) survive.

8 In this, it was similar to ancient Greek olfactory vocabulary, in which the experience of smell was divided into two main groups, pleasant (*autmē*) and unpleasant (*odmē*), for discussion of which see Baltussen, this volume.

familiar enough with the smells of certain species of plant (presumably the most common or popular ones) not to need a detailed description of them, or perhaps simply did not consider the information relevant; such descriptions are generally only given when it is necessary to distinguish one type of specimen from another, thus serving an entirely practical purpose. There seems to have been a thriving black market in ingredients harvested from both flora and fauna, and it would have been helpful for a potential buyer to be able to distinguish genuine from ersatz and good quality from poor quality.[9] This is certainly the case with regard to Pliny's discussion of labdanum (*Cistus creticus*):

> When genuine it ought to have a fierce scent (*odor ferus*), somehow suggesting the smell of the desert (*solitudinem redolens*), and though looking dried up it should soften immediately to the touch, and when set light to flare up with an agreeable scent (*odore iucundo*); but when adulterated with myrtle berries it can be detected by its unpleasant smell, and it crackles in the fire.[10]

Pliny's description indicates that, for his educated Roman readers, the smell of the desert was considered pleasant rather than unpleasant, and it is interesting that adulterating labdanum with myrtle berries, themselves considered to have a pleasant smell and frequently used as a component in garlands, wreaths and chaplets in order to take advantage of this, was thought to produce a compound that smelled unpleasant.

The ecphrastic descriptions of trees, flower and herbs and their smells found in other genres of ancient literature such as poetry serve entirely different purposes and so are, for our purposes, much more informative.[11] In Aristophanes' *Clouds*, a husband and wife are distinguishable (both as a man and a woman, and as a rustic and an urbanite) precisely because of how they smell: "We came together, I rank with wine-lees, fig-boards, greasy wool-packs, she all with scents, and saffron, and tongue-kissings, feasting, expense, and lordly modes of loving".[12] So we find in love poetry that smells are utilized to make or even reiterate the point that someone (or something) is pleasant or unpleasant, and thus either desirable or undesirable. One of Martial's *Epigrams* enlists a variety of different types to articulate his feelings for his lover's fragrant kisses (*basia fragrant*):

> The scent of an apple as a young girl bites it, the fragrance that comes from Corcyrian saffron, the smell of a silvery vineyard flowering with the first clusters or grass that a sheep has freshly cropped, the odour of myrtle, of an Arabian harvester, of rubbed amber, of fire pallid with eastern incense, of turf lightly sprinkled with summer rain, of a garland that has rested on tresses wet with nard.[13]

His selection of a piece of fruit, an exotic spice, a vineyard, berries, two different types of resin, the earth, flowers and oil attest to the sheer variety of pleasant smells that originated in the natural environment, ranging from everyday, home-grown specimens

9 On the ancient drug trade see Scarborough (1982); Nutton (1985).
10 Pliny, *Natural History* 12.37 (translation: W. H. S. Jones).
11 On olfactory vocabulary and the use of scents in ancient poetry, see Lilja (1972).
12 Aristophanes, *Clouds* 48–51 (translation: B. B. Rogers).
13 Martial, *Epigrams* 3.65 (translation: D. R. Shackleton Bailey). See also 11.8, which is very similar, discussed in the Introduction, pp. 6–7.

such as apples and myrtle to luxurious, imported specimens such as saffron and nard. In bucolic poetry, smells can be utilized to set the scene, as in Theocritus' seventh *Idyll* where the characters (and thus the reader) are transported to a location where "all nature smelt of the opulent summer-time, smelt of the season of fruit (πάντ' ὤσδεν θέρεος μάλα πίονος, ὤσδε δ' ὀπώρας)".[14] Smells can also be utilized to make or reiterate the point that the rustic way of life is, depending on the context, either pleasant or unpleasant, and thus either desirable of undesirable, so in Vergil's second *Eclogue*, Corydon imagines showering Alexis, the object of his lust, with gifts in the form of flowers that he considers particularly appropriate in light of the boy's beauty:

> "Come hither, lovely boy! See, for you the Nymphs bring lilies in heaped-up baskets; for you the fair Naiad, plucking pale violets and poppy heads, blends narcissus and sweet-scented (*bene olentis*) fennel flower; then, twining them with cassia and other sweet herbs (*suavibus herbis*), sets off the delicate hyacinth with the golden marigold. My own hands will gather … you too, O laurels, I will pluck, and you, their neighbour myrtle, for so placed you blend sweet fragrance (*suavis miscetis odores*)".[15]

However, not content with utilizing the flowers for their own sweet smells, Corydon works to maximize the overall effect by choosing to blend particular ones. He also makes the link between certain plants and Greco–Roman deities explicit.

The frequency with which certain smells were utilized in ancient Greek and Roman literature does suggest that there were those that were considered, by general consensus, to be particularly pleasant or unpleasant. Thus the writers were drawing on established topoi and making obvious references that their readers would have both understood and appreciated. The smell of the rose, for example, is frequently used in a positive context, which is hardly surprising considering that the rose had a long history of being cultivated, harvested and utilized in its natural form, in garlands, wreaths and chaplets, and in perfumes and unguents specifically for that reason.[16]

While it is important to be aware of any potential bias towards the literate elite with regard to the recording of smells of trees, flowers and herbs in ancient literary evidence, both with regard to the writer and to the intended reader, ancient documentary evidence in the form of papyri, ostraca and wax and wooden tablets, is theoretically more representative of the general population. However, documentary evidence, by its very nature, does not contain the sort of lengthy ecphrastic descriptions or informative comparisons that are found in ancient literary evidence. Private letters frequently include requests for sweet-smelling products for a variety of stated purposes, such as floral garlands and green palm branches required for a sacrifice to the Nile.[17]

14 Theocritus, *Idyll* 7.143 (translation: J. M Edmonds).

15 Vergil, *Eclogues* 2.45–55 (translation: H. R. Fairclough).

16 See for example Vergil, *Georgics* 4.119; Propertius, *Elegies* 4.5.61; Ovid, *Metamorphoses* 15.708.

17 See for example *Papyrus Oxyrhynchus* 9.1211 (second century CE): "Articles for the sacrifice of the most sacred Nile on 30 Pauni: one calf, two jars of sweet wine, sixteen wafers, sixteen garlands, sixteen cones, sixteen cakes, sixteen green palm branches, sixteen reeds likewise, oil, honey, milk, every spice except frankincense"; *Papyrus Michigan* 1.3 (260–56 BCE): "From Theodotos, the archon from Sidon: one jar of Attic honey; [one jar] of perfume made of roses".

Inventories of goods drawn up for marriage contracts and wills habitually include containers for oils and perfumes.[18] Recipes for medicaments regularly include strong-smelling ingredients such as acacia, and cross-referencing these ingredients with ancient medical treatises indicates that they were used because they were thought to be particularly efficacious.[19] Thus the fact that the plants smelled, and that their smells were significant and served particular purposes is implied, but the sheer repetition of certain types suggests that, just as with the ancient literary evidence, there was a general consensus with regard to pleasant and unpleasant smells.

In addition to this literary and documentary evidence, advances in the field of archaeological survey, excavation and post-excavation analysis techniques have enabled scientists to examine, evaluate and interpret botanical remains recovered from ancient sites. It is now possible to study a desiccated wreath of immortelles (*Helichrysum stoechas*) found in a tomb dating to the late second or early third century CE at Hawara, or a residue of pine, cedar or fir resin in a glass vessel found in a house dating to the fourth century CE at Kellis.[20] If the ancient originals no longer smell, faithful modern recreations of them do.[21]

Experimental archaeologists and archaeobotanists have gone one step further, seeking to reconstruct and replant ancient garden spaces in order to understand how the ancient Greeks and Romans experienced them. Thus the Athenian Agora has been replanted with similar species of trees and shrubs to those that are known from ancient literary sources to have grown there in antiquity, notably an oak and a myrtle on either side of the Altar of Zeus.[22] The reconstruction and replanting of the formal gardens at Fishbourne Palace in Sussex has been more speculative, however, as no appropriate ancient literary evidence survives, and while archaeological excavations have uncovered architectural and landscaping evidence that indicates a series of gardens (formal, park and

18 See for example *Papyrus Michigan* inv. 508 + 2217 (second century CE): "Nomissianus … has given his maiden daughter [Zenarion] in marriage for the sake [of begetting children] and M. Petronius Servillius [has taken her as his wife]; and to him [he has promised and has given (by way) of dowry everything that is written below]: gold objects … (of the weight) of two and one-half quarters and some necklaces (of the weight) of one and one-half quarters, total four quarters, and one pair of [silver] … and a bronze Venus and a bronze flask (of the value) of forty-eight Augustan drachmas, and a mirror and a chest … and two oil flasks and another flask in weight seven and one-quarter minae, and a small wooden box, an easy chair, a perfume box. … "

19 See for example *Papyrus Michigan* 17.758 (fourth century CE): "The white plaster with rose oil: one drachma of fresh young pig fat, one quarter ounce of litharge, one quarter ounce of birthwort Longa, one quarter ounce of wax, one quarter drachma of myrrh, five ounces of oil, the whites of three cooked eggs. Prepare and use"; *Sammelbuch griechischer Urkunden aus Aegypten* 14:12086 (second–third century CE): "Eye salve for children: burnt copper, four drachmas; calamine, six or eight drachmas; opium, two or four drachmas; myrrh, two one-third drachmas; erica, two drachmas; acacia, six drachmas; gum, six drachmas; use water until it becomes sufficiently glutinous in thickness". On the use of smells in medical practice, see Totelin, this volume.

20 For the wreath, see British Museum inv. 1890.0519.7, published in Walker (2000: 207 no.295). For the residue, see *Treasures of the Dakhleh Oasis* 31420 – D6–1/D/7/0/3, published in Kaper *et al*. (2006: 32–34, no.7.1).

21 Perhaps inevitably, a number of museums have taken advantage of advances in technology and begun simulating and utilizing smells with a view to complementing – even enhancing – their exhibitions, see Drobnick (2005: 266–69); Sladen (2003), and Morley, this volume, pp. 111–12. Cf. Introduction, p. 10.

22 Thompson (1963: 4). The oak was sacred to Zeus, while the myrtle was sacred to Aphrodite.

Figure 4.1 Funerary wreath of immortelles from Hawara, Egypt, made from a variety of "everlasting" flower, second–third century CE. British Museum, London, inv. 1890, 0519.7. © The Trustees of the British Museum.

kitchen) formed integral parts of the complex, no archaeobotanical evidence that might testify as to their contents has so far been recovered.[23] At many other ancient sites, replanting has been undertaken with the modern visitor in mind, and tends to prioritize accordingly, privileging sight over smell.

Understanding, explaining and locating the smells of trees, flowers and herbs

While the ancient literary, documentary and archaeological evidence attests to the fact that ancient Greeks and Romans were familiar with a wide variety of smells that they described as pleasant or unpleasant according to either personal preference or general consensus, to what extent is it possible to reconstruct their understanding of these smells, and what made them "pleasant" or "unpleasant"? Scholars of the natural sciences began discussing smells in an attempt to come to an understanding of them as early as the middle of the fourth century BCE (further, see Baltussen, this volume, p. 35).

23 On Fishbourne Palace, see Cunliffe (1971).

Theophrastus' *On Odours* is the first surviving technical treatise to undertake serious, scholarly discussion of the smells of plants, and it does so with reference to the individual parts of each.[24] Pliny the Elder's *Natural History* likewise attempts to classify the smells of plants and make sense of their differences, making connections between the sense of smell and the sense of taste:

> All spices and also the plants from which they come have different colours, perfumes and juices (*colore et odore et suco*). It is rare for a thing that smells (*odorato raro*) not to have a bitter taste; on the contrary sweet substances rarely have any smell (*dulcia raro odorata*); and so wines smell more (*odoratiora*) than must, and all wild plants than the cultivated. The smell of some plants is sweeter at a distance, becoming fainter as the distance is lessened (*quorundam odor suavior e longinquo, propius admotus hebetatur*) … All perfume however is stronger in spring, and in the morning; as the day draws near to noon it grows weaker. Young plants also have less perfume (*minus odorata*) than old ones; the strongest perfume however of all plants (*odor omnium*) is given out in middle age. The rose and the saffron have a stronger perfume (*odoratiora*) when they are gathered in fine weather, as have all flowers in warm climates than those in cold. In Egypt however the flowers have very little perfume (*minime odorati*), the atmosphere being misty and full of dew owing to the wide expanse of the river.[25]

Also clear is the extent to which the knowledge of these properties, and the classifications that are instituted as a result, dictate how plants are used, for example if something is being utilized specifically for its smell as opposed to any other desirable property, a variety cultivated in a warm and dry climate is preferable to just a warm one. Thus the senses are necessary for discriminating and understanding the natural world and its relationship to man. These attempts to understand the smells of plants and their products were not just intellectual exercises, but served important purposes with regard to informing people how to utilize plants for their smells in the best possible way.

The knowledge that trees, flowers and herbs could vary significantly according to the nature of the environment in which they grew was firmly established in the ancient world.[26] These variations were recognized as extending far beyond the appearance of the entities themselves to their properties, and were particularly relevant to those who used them in the production of medicaments, perfumes and other industries. Dioscorides, for one, went to great lengths in *De Materia Medica* to make it clear that the medicinal properties of plants varied in accordance with the nature of the environment in which they grew: the type of soil, the nutrients available, the associated flora, the climate and the level of cultivation all affected the strength of the medicine that could be made from a plant.[27] Thus certain types could be considered superior to, and so preferred to, others simply because of their geographical origin.

24 Theophrastus, *On Odours* 2.6, 3.12. For discussion of this treatise and its relationship to *On the History of Plants* and *On the Causes of Plants* see Wöhrle (1988). See also Baltussen, this volume.

25 Pliny, *Natural History* 21.35.

26 See for example Vitruvius, *On Architecture* 8.3.13, which uses this principle as an exemplum.

27 Dioscorides, *On Medical Materials* Preface 6; for discussion, see Riddle (1985: 71).

The logical extension of this connection between a specific environment and its flora is found in the conviction, frequently iterated, that a geographical area (which could range in size from a small district to an entire region) smelled a certain way, that it had a "signature" smell. Thus Herodotus stated that "the land of Arabia gives off a scent as sweet as if divine", and five hundred years later Pliny the Elder went even further, reporting that "under the reflected rays of the sun at midday an indescribable sort of collective odour is given off by the whole of the peninsular, which is due to the harmoniously blended exhalation of so many kinds of vapour".[28] Hyperbole aside, this demonstrates how, once a space had become irrefutably connected with its "signature" smell, registering and acknowledging that smell could signal the precise moment that one entered or exited that space (on how this principle works in religious/sacred space, see Clements, this volume). Of course, while one smell might dominate from a distance, numerous other ancillary smells were simultaneously present and closer proximity could result in the replacement of one dominant smell for another.

In reality, the cities, towns and even villages of the ancient world each contained a rich variety of smells, and districts and neighbourhoods might be irrevocably marked by the smells produced by the activities that took place within them, whether pleasant such as perfumers and spice warehouses, or unpleasant such as tanneries and laundries.[29] This belated recognition of the sheer range of smells combined with the proliferation of scholarship on "space" in the ancient world has led to suggestions that they could be combined and used to create an "olfactory map" or "smellscape" of a certain place at a certain point in time.[30] In respect of smells, time (whether time of year, season, month, week or even just of day) was a significant factor, and this was particularly true with regard to the smells of trees, flowers and herbs in antiquity – while some specimens (for example, box, laurel, myrtle or cypress) were present all year round, many were not.[31] While greenhouses and hothouses are known to have existed in the ancient world, there were limits on how far horticulturalists could cheat nature.[32] Thus the plant smells circulating within an ancient city like Rome, where there were many extensive public parks and gardens, would have been much more changeable than an ancient city like Athens, where there were very few. This seasonal

28 Herodotus, *Histories* 3.113 (translation: A. D. Godley); Pliny, *Natural History* 12.42. On Arabia in antiquity, see Millar (1993); Potts (1990); and Bowersock (1983). On Arabia's incense trade, see Young (2001); Miller (1969).

29 On the sheer variety of odours present in an ancient settlement, see Classen, Howes and Synott (1994: 17). For discussion of the unpleasant odours that circulated around premises such as abattoirs, tanneries and laundries see Potter, Morley, Koloski-Ostrow, this volume; Bartosiewicz (2003); Bradley (2002).

30 On "olfactory maps", see Corbin (1982: 1–4) for an account of how in 1790 two scientists were employed to create such an "olfactory map" of the city of Paris. See also Potter (1999: 170) for the desirability of the creation of just such a map of the ancient city. For a summary of the most recent scholarship on "multisensory maps" in general and "olfactory maps" in particular, see Betts (2011). On "smellscapes" see Porteous (2006: 91–92).

31 For discussion of the variety of ways in which one might experience a Roman cemetery depending on the time of year, see Graham (forthcoming). On the importance of considering temporality when dealing with environments and landscapes, see Ingold (2000) and (1993).

32 Martial, *Epigrams* 8.14, 68; Pliny, *Natural History* 19.64. See also the House of the Mosaic Atrium (IV.1–2) at Herculaneum.

variety is demonstrated neatly in the Appendix Vergiliana's *Priapea*, when the rural fertility god Priapus describes the offerings that his humble supplicants bring him as varying according to the seasons:

> On me in flowery spring is placed a garland gay; on me the soft ear of corn, when first it is green on the tender stalk, as well as yellow violets and milky poppy, pale melons and sweet-smelling apples, and blushing grape clusters, reared beneath the vine leaves' shade.[33]

Yet while the smell of any given plant might ostensibly be the same wherever it was smelled, the ways in which different groups of ancient peoples reacted to the smell could vary significantly. The twelfth book of Pliny's *Natural History* is devoted to trees and the products that could be harvested from them – not only fruits, leaves and resins, but also the woods of the trees themselves.[34] His discussion of the Arabians' trading activities here is notable not only for its information regarding the ways in which they traded these items with others, but also for the ways in which they utilized them themselves.[35] For not only did the people of the Sabaei burn scented woods upon their fires as a matter of course, they also used these scented woods to stoke the fires upon which they cooked their food (which presumably also resulted in flavouring the food accordingly). Thus Pliny asserted for the benefit of his treatise's Roman readers that the smoke and vapour of the Sabaei towns and districts smelled like that of Roman temples and shrines. To the Sabaei, no doubt the smoke and vapour of their towns and districts simply smelled like smoke and vapour, and in fact they went so far as to fumigate their homes with styrax in order to get rid of the smell of the scented wood, which implies that, unlike the Romans (who were, at the time that Pliny was writing, importing one hundred million sesterces worth of such products into Rome each year), the Sabaei found the smells arising from their firewood entirely mundane, even undesirable.[36] This strange (to a Roman) behaviour led Pliny to reflect upon the possibility that familiarity might breed contempt, even with something as ostensibly desirable as incense. For our purposes, this passage offers an example of a Roman clearly stating that as far as the Romans themselves were concerned, certain smells were considered appropriate only within certain specific environments (or, at the very least, on certain specific occasions). The aromatic wood cut from the trees that produced resins such as frankincense and myrrh was only to be used in religious rites, and while those rites might take place on an altar within the home just as easily as on an altar within a temple complex or a shrine, it was the religious context that was important.[37]

33 Appendix Vergiliana, *Priapea* 3 (translation H. R. Fairclough). See also *Priapea* 1, 2.

34 For discussion of trees, timber and other products in the ancient world, see Meiggs (1982). For trees, timber and other products found to have been used in Pompeii and Herculaneum, see Mols (2002).

35 Pliny, *Natural History* 12.40. For a further endorsement of Sabaean incense, see also Columella, *On Agriculture* 10.261–62: "Roses, with modest blush suffused, reveal their maiden eyes and offer homage due in temples of the gods, their odours sweet commingling with Sabaean incense – smoke".

36 For this estimate, see Pliny, *Natural History* 12.41. For discussion of the Roman tendency towards attaching significance to objects with mundane, even ignoble, origins, simply because they were unfamiliar and/or came from far away, see Murphy (2004: 99); Bradley (2009a: 87–110 and 113–17).

37 For the use of incense in religious contexts in the ancient Greek world, see Clements, this volume, p. 46.

The effects of smelling trees, flowers and herbs

Smells were powerful, and could have serious positive or negative effects upon the unsuspecting human body.[38] The human body was considered permeable, susceptible to incursion and thus vulnerable. Consequently, ancient writers frequently dwelled not only upon the positive and negative qualities of smells, but also their therapeutic or harmful properties.[39] Thus it is not surprising that discussion of the effects that the smells of trees, flowers and herbs could have upon the human body is a prominent feature not only of technical treatises where one might well expect to see them treated in the interests of educating the reader on subjects such as botany, horticulture, agriculture and natural history, but also of verse and prose narratives.

The inhabitants of the ancient world certainly differentiated between wild and cultivated plants, generally attributing not only stronger smells but also more efficacious properties to those that had grown in the wild.[40] These stronger smells could be pleasant or unpleasant and their efficacious properties medicinal or poisonous, and venturing out in search of them could prove to be extremely dangerous.[41] The assault or abduction of innocent young girls while they were picking wild flowers was a common occurrence in Greek and Roman mythology.[42] One of the earliest examples of this literary motif is found in the *Homeric Hymn to Demeter*:

> Zeus, heavy-thundering and mighty-voiced, gave [Persephone], without the consent of Demeter of the bright fruit and golden sword, as she played with the deep-breasted daughters of Ocean, plucking flowers in the lush meadow – roses, crocuses, and lovely violets and irises and hyacinth and the narcissus, which Earth grew as a snare for the flower-faced maiden in order to gratify by Zeus' design the Host-to-Many, a flower wondrous and bright, awesome for all to see, for the immortals above and the mortals below. From its root a hundred-fold bloom sprang up and smelled so sweet that the whole vast heaven above and the whole earth laughed, and the salty smell of the sea (τοῦ καὶ ἀπὸ ῥίζης ἑκατὸν κάρα ἐξεπεφύκει· κῶζ' ἥδιστ' ὀδμή, πᾶς τ' οὐρανὸς εὐρὺς ὕπερθεν γαῖά τε πᾶσ' ἐγελάσσε καὶ ἁλμυρὸν οἶδμα θαλάσσης). The girl marvelled and stretched out both hands at once to take the lovely toy.[43]

In point of fact, Zeus, Hades and Gaia use the sweet scent of one particular flower, the narcissus, to lure Persephone away from her companions in order to facilitate Hades' abduction of her.[44] While other versions of the myth disagree as to the precise location of the encounter, all of them agree on the role that sweet-smelling flowers played – Diodorus Siculus goes so far as to claim that the scent of flowers was such that trained

38 Aristotle, *De sensu* 5 (443 B 19–444 A 8).

39 On the nose and the sense of smell, see the Introduction, pp. 3–4. On smell, the body and medicine, see Totelin, this volume.

40 Frayn (1975: 32–33).

41 For the marginal status of root-cutters, see Nutton (1985).

42 See for example the cases of Helen of Sparta, Europa and Oreithyia.

43 *Homeric Hymn to Demeter* 3–16. For translation and commentary on this episode, see Foley (1994: 31–34).

44 On the narcissus see Ovid, *Metamorphoses* 3.341.

hunting dogs were unable to pick up Persephone's trail, thereby introducing an element of realism (even pragmatism) into the tale.[45] However, it was not just innocent maidens that were subject to entrapment by aroma. Another example of such odours being used as a means of luring an unsuspecting individual into a dangerous situation is found in Homer's *Odyssey*, when Odysseus is shipwrecked onto a remote island and is drawn towards Calypso's dwelling, where "a great fire was burning on the hearth, and far over the isle spread the fragrance of split cedar and citronwood, as they burned (τηλόσε δ' ὀδμὴ κέδρου τ' εὐκεάτοιο θύου τ' ἀνὰ νῆσον ὀδώδει δαιομένων)".[46] Like the Sabaeia discussed earlier, Calypso is purposefully burning wood that has been harvested not just from any old tree, but exotic and prestigious trees renowned for their fragrant scent.

Utilizing the smells of trees, flowers and herbs

For the ancient Greeks and Romans trees, flowers and herbs were loaded with culturally specific meanings and associations as a matter of course, with perhaps the most common expression of this way of thinking being the connection of certain species of tree, flower or herb with a particular mythological and religious figure such as the laurel with Apollo, the rose and myrtle with Aphrodite/Venus or the opium poppy and corn with Demeter/Ceres. This is apparent nowhere so much as in the creation of garlands, wreaths and chaplets. These were utilized (often mandatorily) for a variety of purposes in both public and private contexts throughout the year, and so a wide range of products harvested from assorted plants were in constant demand, since they started to deteriorate the moment they were gathered, rapidly losing not only their pleasant smell but also their attractive appearance, although, as previously stated, the attractive appearance was very much secondary in importance.[47] Personal preference certainly had a part to play in the selection of cuttings: roses and violets were particularly popular, probably in part because their smells were particularly noticeable and pleasant up close, but also because of their useful, health-giving properties.[48] Pliny the Elder despaired of the effect that fast-moving fashions had upon chaplets, which had started as simple wreaths of roses, before leading to chaplets consisting entirely of petals, to those consisting of nard leaves, to those consisting of silk impregnated with perfumes mimicking petals and leaves.[49] Yet on certain special occasions the components of chaplets, garlands and wreaths were dictated according to custom rather than taste or trends: at weddings, for example the bride commonly wore marjoram in her hair not just for its pleasant fragrance, but also because it was sacred to Aphrodite/Venus.[50]

45 Diodorus Siculus 5.2.3–5.5.1.

46 Homer, *Odyssey* 5.59–61 (translation: A. T. Murray).

47 See for example *Aegyptische Urkunden aus den Königlichen Museen zu Berlin, Griechische Urkunden* 2.646/*Grundzüge und Chrestomathie der Papyruskunde* 490/*Select Papyri* 2.222, a decree dating to 6 March 193 CE, in which the strategoi of the seven nomes of Egypt are ordered to celebrate the accession of a new emperor by sacrificing and wearing garlands for fifteen consecutive days; and *Papyrus Michigan* 5.243, a guild ordinance dating to 14–37 CE, in which members of the guild are ordered to lay wreaths on tombs when they attend funerals.

48 Pliny, *Natural History* 21.14; 21.35.

49 Pliny, *Natural History* 21.11.

50 Catullus 61.6–7. For discussion of this practice, see Butler, this volume, p. 79.

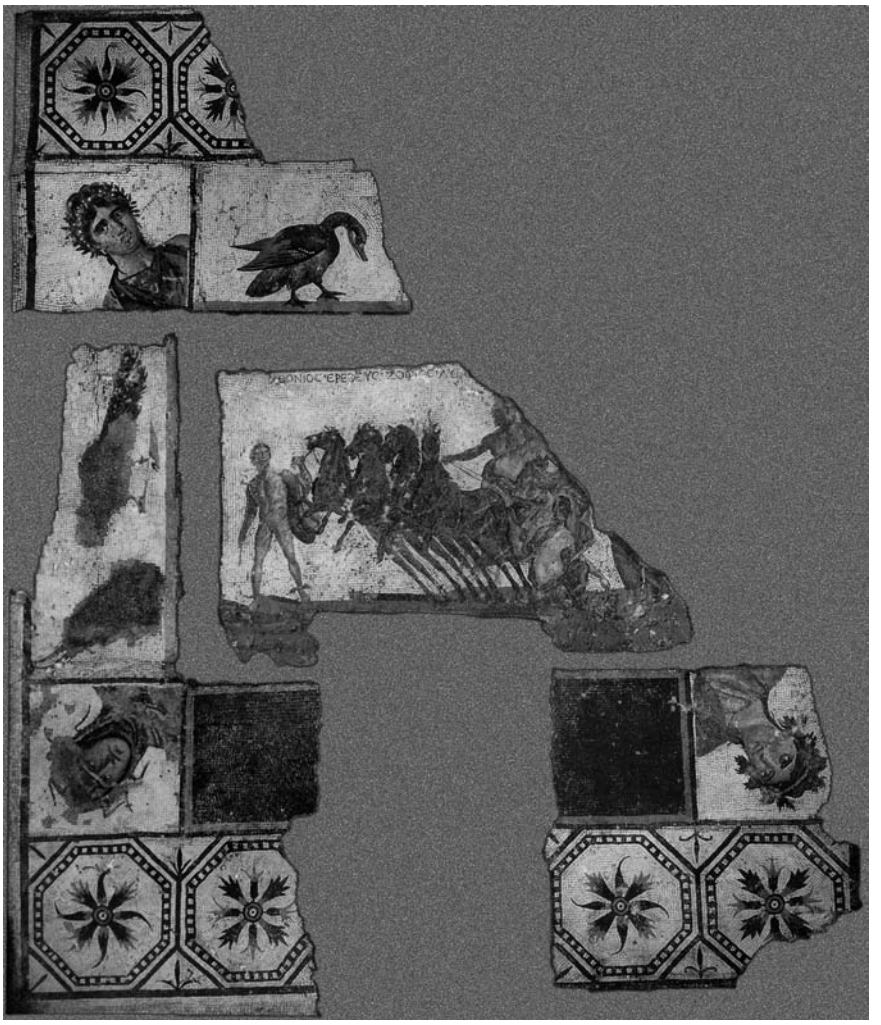

Figure 4.2 Mosaic depicting the abduction of Persephone. Musei Capitolini, Centrale Montemartini, Rome, inv. 1235; image courtesy of Archivio Fotografico dei Musei Capitolini.

Trees, flowers and herbs could also be used throughout the home to augment pre-existing spaces, both temporarily and more permanently, and it would appear that certain specimens were considered particularly appropriate to certain spaces, although once again, this was not due to their smell, but the effects that that specific smell was thought to have on those who smelled it. Cypress trees were placed across the threshold of the entrance of a household in mourning, both their appearance and their smell serving as warnings to those about to enter.[51] In the bedroom, anise was placed upon pillows as the smell of it was thought to serve as a means of combating insomnia and

51 Ovid, *Metamorphoses* 10.106–42.

nightmares, while pennyroyal was used similarly as the smell of it was thought to prevent headaches as well as repel fleas.[52] Mint was used to stuff cushions, thereby filling a room with a smell that was not only sweet, but also served to lift peoples' spirits and even revive those who might feel faint, as well as deterring scorpions.[53] Scented woods such as citrus and cypress were in high demand for furniture for both decorative and practical purposes – the latter was a particularly popular choice when it came to constructing scroll chests, as the wood's high resin content protected anything stored inside from insects.[54] However, it is important to remember that it was not just those plants with pleasant smells that were in demand. Even those that were thought to smell unpleasant could be useful, utilized for fumigation and disinfection, and even as pest control measures. Garlic, described by Horace as "a plant more deadly than hemlock", was scattered in fields to prevent birds from eating freshly sown seeds, and was thought to deter snakes and scorpions.[55]

Conclusion

The smells of trees, flowers and herbs were ubiquitous throughout the ancient world, found not only in the immediate vicinity of the plants themselves (whether wild or cultivated, rural or urban) but also in the wide range of products that could be derived from them and were utilized at all levels of society, in all areas of life. Thanks to an abundance of ancient literary, documentary and archaeological evidence, it is possible to state with a degree of confidence precisely which ones the ancient Greeks and Romans considered typically pleasant (for example, the rose) and unpleasant (for example, garlic), and also which were being smelled, and where, how and why they were being smelled.

Yet ascertaining precisely what an ancient Greek or Roman *thought* or *felt* upon smelling trees, flowers and herbs is rather more problematic. This demonstrates not only the imprecision of olfactory perception – or at least the lack of a standardized frame of reference when attempting to refer to it in writing – relative to vision, hearing or taste, but also its relative unimportance. That is not to say that ancient approaches to the smells of plants were unsophisticated. Admittedly, their smells were not described for the benefit of the reader *per se*, and that is presumably in part due to the fact that since they were ubiquitous, a reader was familiar enough with them to render a description unnecessary, but perhaps also due to the fact that the smells *themselves* were really not *that* important. Rather, when they are the subject of literary ecphrasis, the smells are presented through their association with other things, with particular episodes or experiences, or to make a particular point. What is made clear and readily utilized, however, is the polarity between different types of smells, and the separation of smells into distinct categories such as "pleasant" and "unpleasant", or "strong" and "weak", and this polarity remains (as we have seen) at the heart of many modern experiences and representations of smell too.

52 Pliny, *Natural History* 20.186; 20.152; 20.155.

53 Pliny, *Natural History* 19.159; 23.147; 23.152; 20.145.

54 Citrus wood: Strabo, *Geography* 17.3.4; Pliny, *Natural History* 13.91. Cypress wood: Horace, *On the Nature of Poetry* 330–32; Vitruvius, *On Architecture* 2.9.13; Pliny, *Natural History* 16.221.

55 Horace, *Epodes* 3.3–4 (translation: N. Rudd); Pliny, *Natural History* 19.116; 20.50. Further on garlic, see Clements (2013).

One important difference, however, lies in the emphasis that Greeks and Romans placed upon the utility of smells. Rather than enjoying the smells of trees, flowers and herbs for their own sake, the ancient Greeks and Romans were far more concerned with *how* these smells could be utilized. "Pleasant" smells could be enhanced through the process of mixing, blending and adulterating, resulting in the production of perfumes thought to far surpass any scent found in nature, such as amaracine.[56] However, "unpleasant" – even "foul" – smells were also regarded as useful and necessary, and so employed with a degree of enthusiasm in the appropriate context, which ranged from the sickroom to the threshing floor to the vegetable garden. This approach to the smells of plants was a direct consequence of the ancient conception of the sense of smell itself, and the consistent preoccupation with the physical aspects of the perceptual process, notably the actual, physical transfer of not only information from but also elements of the objects in question over to the senses and thus absorbed into the body. This idea of the "infused body" is a key element of the next chapter, which examines the relationship between fragrances and the eroticism of bodies in the classical literary tradition.

56 Servius, *Commentary on the Aeneid of Vergil* 1.693. For discussion of amaracine, see Butler, this volume, pp. 75–76.

5

MAKING SCENTS OF POETRY[1]

Shane Butler

Other essays in this volume make varying use of textual evidence, including literary evidence, in order to reconstruct the lived "smellscapes" of the ancient world. The following study moves in the opposite direction, seeking the ways in which well-known smells worked to structure the experiences of ancient literary readers. To that end, we shall consider, as a test case, the persistent literary tradition of a single scent, or rather, of a set of both natural and artificial scents that shared a single name. Most of our textual examples will be Roman, but as shall be clear in the end, they embody olfactory associations that stretch back in time and across the classical world. In each of these texts, those associations operate in and around representations of human and divine bodies. The goal of this brief case study is to demonstrate the potential value of contextualizing such representations – and by extension, classical literature itself – not only within the odoriferous landscapes of the ancient Mediterranean world (including the "trees, flowers and herbs" conjured by Draycott, this volume) but also in relation to the ancient industries and sciences that sought to exploit that botanical richness. This latter context, for the texts to come, includes that of ancient medicine (on which see also Totelin, this volume), but we shall first direct our noses toward a once famous perfume.

Near the end of the first book of the *Aeneid* (1.656–722), Venus, who sometimes seems a stand-in for Vergil himself, working to keep the poem and its hero on track even as Hera schemes to bend their trajectory, decides she must take precautions to guarantee that Dido falls hopelessly in love with Aeneas, the sentimental catastrophe which will be crucial, of course, to the plot of the poem's next several books. Accordingly, the goddess instructs her son Cupid to disguise himself as Ascanius, son of Aeneas (and thus her own grandson), and sends him along with the Trojan prince to greet the Carthaginian queen, where the boy-god will ply her with gifts and seemingly childish charm. The real Ascanius, in the meantime, must be got rid of for a while. This Vergil accomplishes expeditiously, first borrowing a few words from Lucretius to have Venus "pour gentle repose through his limbs" (1.691–92). She then spirits him away, "caressed in her lap" (a preview of Dido's pose with the false Ascanius), and sets him down deep in a grove high on a mountain on the isle of Cyprus, sacred to her, "where soft *amaracus* embraces him with flowers and sweet darkness", *ubi mollis amaracus illum / floribus et dulci adspirans*

1 This essay abridges and adapts Shane Butler, "The Scent of a Woman", *Arethusa* 43.1 (2010): 87–112, © 2010 The Johns Hopkins University Press. Reproduced portions are reprinted with permission of The Johns Hopkins University Press. Unless otherwise indicated, translations from Greek or Latin are the author's own.

complectitur umbra (1.692–94). There the boy will sleep softly at least through book 3, i.e., through his father's entire retelling for Dido and her court of the fall of Troy and his subsequent flight and perilous voyage. The sleeping Ascanius thus offers a kind of quiet pendant to the Trojan saga, which unfolds at times rather like a waking nightmare after Aeneas has first protested that the telling will be painful and that the late-night sky more suitably urges sleep (2.3–9).

Amaracus is probably the same as or similar to the herb we call "sweet marjoram".[2] But for the great English Restoration poet and Vergilian translator, John Dryden, the word's likely modern equivalent posed a dilemma which he felt moved to describe in detail:

> If I should translate it sweet marjoram, as the word signifies, the reader would think I had mistaken Virgil: for those village words, as I may call them, give us a mean idea of the thing; but the sound of the Latin is so much more pleasing, by the just mixture of the vowels with the consonants, that it raises our fancies to conceive somewhat more noble than a common herb, and to spread roses under him, and strew lilies over him; a bed not unworthy the grandson of the goddess.[3]

Dryden solves the problem of cheapening his translation with the English word for "a common herb" by under-translating *mollis amaracus* as "a flow'ry bed", compensating for the loss of botanical specificity by having Venus crown the boy with "a wreath of myrtle", a detail entirely lacking in the original.[4] Most other translators, less fastidious than Dryden about "village words", have made do with marjoram. But both a literal translation and Dryden's substitutions lose something delicate in the Latin – something even more delicate, in fact, than the gentle scent marjoram releases when crushed between your fingers.

The peripheral slumber of Ascanius did not escape the attention of the late-antique grammarian Servius, whose commentary on Vergil's works offers a treasure-trove of ancient antiquarian lore, including this note on the odoriferous herb that made so sweet a bed:

> Amaracus was a slave charged with keeping the perfumes for a royal house (*Amaracus hic puer regius unguentarius fuit*). Having tripped and fallen while carrying the perfumes, he produced an even greater perfume by their accidental blending. As a result, the best perfumes are called *amaracina*. He himself was later transformed into the herb *sampsucum*, now also known as *amaracus*.[5]

2 In modern botany, this is *Origanum majorana* L. or *Majorana hortensis* (the former being the older designation by Linnaeus, properly used with the appended "L."). Full discussion in Andrews (1961: 77–78), who admirably sorts the ancient terminology for the various members of the Linnaean genus *Origanum*, arguably producing, however, more precision than we can always suppose in our sources. More discussion below.

3 Dryden (1961: 233).

4 Dryden (1997: 27).

5 Servius, *Commentary on the* Aeneid *of Vergil*, on 1.693. Cf. Isidore, *Etymologies* 12.4.8 and 17.9.14; Vatican Mythographers (ed. Kulcsár) 1.34 and 2.209. Oil (usually olive) was the regular base medium of ancient perfumes, which thus were called *unguenta* in Latin, which I shall translate "perfumes" rather than "oils", "unguents" or "ointments". These latter terms, while etymologically faithful to manufacture and application, understate what the word effectively meant to ancient Latin speakers, who almost always use it with a primary reference to scent. Among the oil bases preferred by perfumers was *omphacium*, the thin and relatively unscented oil yielded by unripe olives, on which see Brun (2000: 296).

Far-fetched as this tale may be, it includes an ancient and enduring truth of the perfumer's art: the best fragrances are blends.[6] And it seems more than likely that ancient perfumers understood as well as their modern counterparts that this is not so much a question of balance or novelty as it is of the fact that different substances release their scents at different rates, enabling a blended perfume to unfold over time. Mixing musical and structural metaphors, modern perfumers thus describe their creations as a succession of "notes": "top", "middle" and, finally, "base".

The legend of Amaracus, royal perfume-keeper, may, in fact, have something to do with what the ancient encyclopaedist Pliny the Elder calls "royal perfume" (*regale unguentum*), explaining that it was so called because it was blended for the kings of the Parthians.[7] Pliny calls this compound the "very height of luxury, the last word on perfume" (*cumulus ipse deliciarum et summa auctoritas rei*) and provides a list of over two dozen ingredients, from ben-nuts to wine, including *amaracus*. The herb likewise appears among the ingredients Pliny lists for *telinum*, "the most fashionable scented oil at the time of the comic playwright Menander".[8] Only a few fragrances were made from a single essence; Pliny calls these "noble perfumes" and notes one made solely from *amaracus* from the southern coast of the Sea of Marmara.[9] But he adds that even these sometimes then were mixed with other fragrant substances. It is clear, in any case, that the prized amaracines (*amaracina*)[10] described by Servius contained more – much more – than their namesake herb, and the success of any particular amaracine must have had much to do with the artistry of the blend. In a remarkable timeline of shifting fashions in perfume, Pliny includes an amaracine from Cos, the vogue for which eventually yielded to a perfume of quince blossoms from the same island.[11]

Roughly four centuries before Pliny, and seven before Servius, Theophrastus, pupil of and successor to Aristotle, penned a treatise *On Odours* that survives in mutilated form alongside his other influential works on botanical subjects.[12] It opens with the assertion that "odors in general, like tastes, are due to mixture". Much of what follows regards the compounding of perfumes and includes this exposé concerning the composition of amaracine:

> The finest amaracine (*amarakinon*) is said to be compounded from all the best aromatic plants – save marjoram (*amarakos*). For this is the one aromatic plant

6 "With their home-grown and their imported aromatics the ancients created gloriously heady blends of perfumes", gush Classen, Howes and Synnott (1994: 15), in a chapter on "The Aromas of Antiquity" (13–50) that provides a lively introduction to the subject. More in Faure (1987). God himself tells Moses what to blend to make holy perfumes at Exodus 30:22–38.

7 Pliny, *Natural History* 13.17–18.

8 Ibid. 13.13.

9 Ibid. 13.14.

10 *Amaracine* does not appear in the *Oxford English Dictionary*, but in Anglicizing it (I shall use it both as an adjective and as a noun), I am following the lead of Oscar Wilde in "The Burden of Itys", in Wilde (1881: 66).

11 Pliny, *Natural History* 13.5.

12 This fascinating treatise is conveniently available in the second volume of the Loeb edition of Theophrastus, *Enquiry into Plants and Minor Works on Odours and Weather Signs* (Hort 1916). For further discussion of this work in its philosophical context, see Baltussen, this volume pp. 42–44.

> which perfumers are said not to use for any perfumes at all; the name, instead, is a kind of false epithet.[13]

This clearly had changed by Pliny's time,[14] but variations in the formula are less interesting than what remains consistent from Theophrastus through to Servius: the ancient Greeks and Romans associated the herb *amaracus* (Greek, *amarakos*) with a luxurious scent suitable for human bodies, and they attached the name to a variety of perfumes which contained varying quantities (including none) of the herb itself.[15] This is rather more remarkable than it might at first seem. Let us suppose that we could actually trace the history of amaracine over the centuries through access to the perfume itself or, at least, to its specific formulas, complete with precise quantities that would enable us to approximate with modern ingredients the finished products. Our noses would follow a tradition that, despite names and appearances, was *not* so much concerned with the imitation of nature, for if natural scent were the goal, then the ancients would have contented themselves with pure essence of *amaracus*. Each new amaracine, instead, asked to be compared not with a plant but with its predecessor perfumes, in what clearly was a long ancient quest – from the "superior kind of amaracine" of Theophrastus to the "best perfumes" described by Servius – to produce the most intoxicating amaracine of all.

The perfumer's art, in other words, imitates and emulates not just nature but also (and especially) prior art. On the one hand, this raises an amusing chicken-and-egg question: for an ancient nose caught up unawares in this long tradition, was it the amaracine that smelled of *amaracus*, or the other way around? The answer would perhaps depend on one's background, and we may be permitted to imagine the pampered aristocrat who found the bottle first and the herb only later (if at all). But even more interesting is the way in which this olfactory tradition resembles what we have come to expect as a matter of course from the traditions of ancient literature. Greek and Roman poetry is full of nature, for example, but only seldom do we suppose that the poet paints from life: what is not a flight of pure fancy is, more often than not, borrowed and reshaped from literary precedent. This is true not only of what poets describe but also of the words and sounds they use: thus, as already has been noted, when Vergil has Venus "pour gentle repose through the limbs" of Ascanius, he is echoing, almost word-for-word and metrical foot-for-foot, his predecessor Lucretius.[16]

13 Theophrastus, *On Odours* (*Fragments* 4) 30. He contradicts this assertion, however, in *Research on Plants* 9.7.3, where he includes ἀμάρακος in the plants used for perfumes.

14 One does wonder a bit, however, whether the convoluted aetiology offered by Servius represents, at some level, an attempt to explain the name amaracine without recourse to the herb as an ingredient; in other words, late antiquity too may have known a fine amaracine that contained no *amaracus*. A curious modern parallel is to be had in L'Origan, the scent that in 1905 helped to make perfumer François Coty famous: despite the name, I can find no one who includes any species of *Origanum* (including marjoram) among its supposed ingredients. Coty would go on to produce Chypre (1917), already a name of several nineteenth-century perfumes. On this and other evocations of Aphrodite's island as shorthand for beauty, see the provocative discussion of Belgiorno (2007: 53–60).

15 The origins of this tradition are, in fact, far earlier: among the tablets from the "Palace of Nestor" at Pylos, Fr. 1215 describes an oil of *sambera*, the Mycenean antecedent of *(s)amarakon*. Brief discussion in Faure (1987: 140). On perfume at Mycenean Pylos generally, see Shelmerdine (1998: 102–9), as well as Shelmerdine (1985).

16 Vergil, *Aeneid* 1.691–92: *placidam per membra quietem* / *irrigat*. Lucretius, *On the Nature of Things* 4.909: *somnus per membra quietem* / *irriget*.

The same Lucretius provides the only three appearances of the perfume amaracine (as opposed to the herb *amaracus*) in surviving Latin poetry. In the first, he observes that atoms have no odour, rather like the neutral oil base in which one compounds an amaracine or other perfume.[17] In the second, he imagines a spurned lover piling flowers on his beloved's doorstep, smearing amaracine on her doorposts, and kissing the locked doors themselves as he weeps.[18] In the last, he turns to the effects of different odours on different species, culminating in this:

> Thus does amaracine drive away the pig, which fears all perfume. For what from time to time makes us feel fresh and new is bitter poison to the bristly pig. By contrast, although mud to us seems disgusting filth, the same is for pigs a source of such delight that they never tire of wallowing in it.[19]

The unsuspecting reader might suppose that the first half of this observation is the result of experience – or even deliberate experimentation – by Lucretius or someone he consulted. Instead, Lucretius is somewhat over-interpreting an ancient proverb, preserved for us by the essayist Aulus Gellius: *Nihil cum amaracino sui*, "A pig has nothing to do with amaracine".[20] The expression inevitably made its way into the *Adages* of Erasmus,[21] that great Renaissance collection of ancient aphoristic wisdom, and thence into the occasional emblem depicting a pig staring perplexed at a potted marjoram plant, sometimes accompanied by the haughty motto (addressed to the pig by the herb, and thus by the emblem owner to his uncouth critics), *non* or *haud tibi spiro*, "I am not fragrant (literally 'breathe' and thus also 'live') for *you*".[22] But this is only a pictographic simplification: pigs do not (as far as I have been able to learn) really avoid marjoram. Rather, the point of the original motto is that pigs, being pigs, prefer mud to fine perfume. "A pig", we might translate and update, "has nothing to do with Chanel No. 5". Ancient amaracine's influence, in other words, was sufficient to produce yet another slander against pigs (compare, of course, the biblical "pearls before swine"[23]), although they actually are among the most hygienic and intelligent of mammals, and their sense of smell, as every truffle-lover knows, is keen and refined. But even more interesting is the way in which the later iconic simplification of amaracine into its eponymous ingredient

17 Lucretius, *On the Nature of Things* 2.847.

18 Ibid. 4.1176–79. More on this below.

19 Ibid. 6.973–75.

20 Gellius, *Attic Nights*, Preface 19. On the full line, *nil cum fidibus graculo (e)st, nihil cum amaracino sui*, "The crow has nothing to do with the lyre; the pig has nothing to do with amaracine", as a likely example of popular metrical wisdom, see Sedgwick (1932: 99).

21 Erasmus, *Adages* 1.4.38.

22 An excellent example is in Joachim Camerarius the Younger, *Symbolorum et emblematum centuriae quatuor*, vol. 1, no. 103, consulted in a copy of the 1677 Mainz edition at the University of California, Los Angeles, where the emblem appears on p. 186. See also Corbett and Lightbown (1979: 36–37, 59–64), with a reproduction on p. 58 of the title page of a 1593 edition of Sidney's *The Countesse of Pembrokes Arcadia*, featuring a version of the same emblem.

23 "Give not that which is holy unto the dogs, neither cast ye your pearls before swine, lest they trample them under their feet", Matthew 7:6 (King James Version). Ancient aphorisms involving pigs are too numerous to list (*sus Minerva*; *sus per rosas*; *matrem sequimini porci*; etc.). See Otto (1890: 224, 336). But many more are collected by Erasmus.

invites us to reread instances of *amaracus* in ancient poetry, including the one with which we began, deep in a grove sacred to the goddess of love. For Vergil's *amaracus* should we read – and thus smell – not a "common herb" but a famous perfume? After all, Venus' own hair, a few hundred lines earlier, has already emanated another heavenly scent – indeed, the gods' proprietary fragrance: ambrosia.[24]

Venus, in fact, is not the only alluring female whom the poets associate with *amaracus*.[25] The earliest example, and the only one in Greek, is in the longest surviving fragment of the works of the tragedian Chaeremon, known, until his plays were lost, for "having a penchant for flowers".[26] In opulently erotic language, the narrator describes having spied upon a band of beautiful young women whose scanty clothes parted to reveal a breast here, a thigh there; others were slumbering on beds of variegated flowers, while, finally, "thriving on dew, thick *amarakos* stretched out its stems on tender meadows".[27]

A Roman bride is the object of the earliest surviving Latin example, a poem which Catullus wrote to celebrate the wedding of L. Manlius Torquatus to the beautiful young Junia Aurunculeia.[28] The poem opens by calling Hymen, god of marriage, down from Helicon, mountain of the muses, instructing him to hurry happily to the ceremony, a flame-colored veil in hand and a wreath of "flowers of sweet-scented *amaracus*" on his head.[29] The veil, of course, is for the bride, and though flowers and foliage were ubiquitous in a Roman wedding, Hymen's wreath here pointedly echoes the one the bride herself wore, traditionally composed, we are told by Festus, "of flowers, twigs, and herbs she herself had gathered".[30] Next, in chronological order, comes Vergil, followed by Columella, who in the tenth book (in verse, on gardens) of his *On Agriculture*

24 Vergil, *Aeneid* 1.402–4. On ambrosia and other scents of divinity, see Lilja (1972: 19–30) and Clements, this volume. Cf. the departure of Flora (who, of course, might smell of ambrosia or flowers or both) in Ovid, *Fasti* 5.376: *mansit odor: posses scire fuisse deam*, "Her scent lingered: you would have been able to tell that a goddess had been present".

25 We should note before proceeding that the use of perfumes in antiquity was hardly confined to women. Nevertheless, explicit mention of a man's perfume, positively or negatively, usually connotes extravagance; when negative, the accusation usually is of (cinaedic) effeminacy. Extravagance, at least, is evident in two possible references to the use of amaracine by men, both from lost comedies quoted by Athenaeus in the same passage: Eubulus, fr. 107.3 K–A (108.3 Hunter) = Athenaeus 12.553a, where "luxurious maidens" rub the speaker's "foot" with amaracine, and Antiphanes, fr. 105.6 K–A = Athenaeus 12.553d and 15.689e–f, where the speaker extracts a variety of unguents from a gilded box, including amaracine, applied to "eyebrows and hair". The first passage has been taken to be a riddling joke on the male genitalia depending on *pous* = "phallus" (see Henderson 1991: 126, 129–30, 176), in which case being rubbed by maidens with amaracine takes on several possible meanings (Henderson thinks the "maidens" are the speaker's testicles): perfume is hardly the point and euphemism is the game (i.e., the speaker no more means "amaracine" than he does "foot"). And in the second, the speaker's gender actually is not clear: even if male (as some translators have assumed, probably precisely in order to make the passage funny), the comic context would prevent us from taking his use of amaracine as typical – indeed, the humour might well depend on its inappropriateness.

26 Athenaeus, *The Learned Banqueters* 13.608d: ἐπικατάφος … ἐπὶ τὰ ἄνθη.

27 *Tragicorum Graecorum Fragmenta* (Snell) 71 Chaeremon F 14.15–16.

28 Catullus 61.

29 Ibid. 61.6–8. The *Enciclopedia virgiliana*, vol. I (1984: 328), s. v. "aromatiche, piante", suggests that this passage (or a general use of marjoram in bridal crowns) is echoed by Vergil's *amaracus* at *Aeneid* 1.693, which "potrebbe alludere alle imminenti nozze fra Didone ed Enea".

30 Paulus, *Epitoma Festi* 45. Tertullian, *De corona* 13.4, suggests that both bride and groom were crowned.

offers a veritable orgy of flowers into which he invites, about midway through, whole nations of nymphs to come gather his narcissus, etc., "while Apollo sinks his steeds into the Spanish deep, where *amaracus* carpets scented darkness".[31] The final poetic example, from Claudian's *Rape of Proserpina*, has "tender" (*mollis*) *amaracus* adorn one of the girls in the goddess' train as they all traipse "through the flowering countryside" (*per florea rura*) of Sicily, gathering shoots and blooms as they go, moments before the violence that gives the poem its title.[32]

Among these, the Catullan poem, one of his best known, invites special scrutiny. This pretended "wedding-song" (*epithalamium*) piggy-backs on the symbolism of the Roman (and Greek) marriage ceremony to offer a long series of decreasingly metaphorical anticipations of Torquatus' physical enjoyment of his new wife on their wedding night. This begins, of course, with Hymen himself, whose name means "membrane"; other *double entendres* are rolled out almost stanza by stanza ("throw open the unbolted doors", etc.). The poem directly addresses not just Hymen but practically everyone involved in the wedding, especially the bride herself, who is urged at length to yield to, and thus participate in, the pleasures of the coming night. But this only thinly disguises vicarious enjoyment of her by the poet and his readers. Never entirely pornographic, the poem nevertheless is driven by an insistent voyeurism which, though not blind to her "no less beautiful" husband and to their now imminent "play" (*ludus*),[33] remains mostly focused on the young bride herself. This culminates, without quite climaxing, in this final snapshot from the bedroom:

iam licet venias, marite:
uxor in thalamo tibi est,
ore floridulo nitens,
alba parthenice velut
luteumve papaver.

Time to come, husband!
A wife waits in your wedding-bed,
her smile blooming with beauty,
like the white virgin-flower,
or the ruddy poppy.[34]

31 Columella, *On Agriculture* 10.295–96: *dum Phoebus equos in gurgite mersat Hibero, / sicubi odoratas praetexit amaracus umbras*. The full passage begins at 10.264.

32 Claudian, *Rape of Proserpina* 2.129; 118.

33 Catullus 61.189–92: *nihilo minus / pulcer es, neque te Venus neglegit*. 61.202–4: *vestri … / multa milia ludi. / ludite ut lubet … .*

34 Ibid. 61.184–88. On *luteum* meaning "red" here, see Thomson (1997: 362), and compare the similar red/white contrast earlier in the poem, at lines 9–10; the two colours exploit the double meaning of *os*, "face" or "mouth". (*Luteus* is also the traditional colour of Roman wedding costume, and editor Mark Bradley has expressed to me *per litteras* his own preference for reading a reference to this here. But depending on how "orange" we suppose that costume to have been, the two options – to which he adds a third, in the bride's blush – need not be mutually exclusive.) The long-deferred permission granted by *iam licet venias* can hardly be without a secondary sexual sense, though it is difficult to know whether the Latin *venire*, by itself, could suggest orgasm in the way of the English "come" (or, e.g., the Italian *venire*); for such a sense for verbs of "reaching a goal" (including *pervenire* and *adventare*), see Adams (1982: 144).

There is more to these metaphor than meets the eye. If *parthenice*, "virgin-flower", which appears only here among Latin texts, is chamomile (as the *Oxford Latin Dictionary* suggests), then it joins the notoriously soporific poppy to surround the bride with scents most suitable for a bed.[35] "Not this bed!" one might object, since its immediate purpose is hardly sleep, but this is Catullus' analogic game throughout the poem, substituting one seductive pleasure for another. Here he suggests that the couple's "play" will be, for them, like a dream and, for us, something worth dreaming about, not only now but even once the poet's own "play" comes to an end (*lusimus satis*) in the poem's final stanza.

Poppy and chamomile are not the poem's only botanical similes for the bride, herself once described as a *florida puellula*, a "girl in her first bloom".[36] Her beauty will remain unrivalled, like that of a proud "hyacinth among the many colours of its rich master's flower-bed".[37] She will embrace her husband as a "trellis-tree" embraces the "sinuous grapevine".[38] So too is her mind a tree, gripped by love as if by "clinging ivy".[39] Finally, she is "like an Asian myrtle, dazzling with its flowery branches, which tree-nymphs feed with wet dew and treat as a toy".[40] None of these figures, of course, is innocent of sexual innuendo, which brings us back to the beginning of the poem's floral assault on the reader's senses: Hymen, crowned "with flowers of sweet-smelling *amaracus*". As has already been said, Junia may well have worn an *amaracus* crown; the choice, in any case, is scarcely an improbable or inappropriate one by the poet.[41] But given the sexual charge of the poem's later floral metaphors, it seems difficult to read only straightforwardly the perfumed Hymen with which it opens.

Whatever she wore in her hair, so fancy a bride, or the entourage that dressed her (perhaps the sexually experienced matrons whom Catullus will instruct to arrange her in her marriage bed), would surely have reached as well for costly unguents arrayed in tiny alabaster jars.[42] In other words, if Junia's wedding day began with her gathering real *amaracus* with her own hands, then it could have ended (and her wedding night have begun, moments after the poem subtracts the couple from our view) with the groom's nose pressed into skin anointed with amaracine, or the like. Indeed, our suspicion that our poet is imagining just such a scene (and scent) is heightened by a short piece earlier in the collection. In Poem 13, Catullus puts off a friend who wants to come for dinner, ostensibly because he has nothing to feed him but implicitly because he is having too much fun in bed to stop for supper. Come back in a few days, Catullus asks, and bring everything we need to dine; in exchange, "I shall offer you a perfume that Venuses and Cupids gave my girlfriend, and when you smell it, you will pray to the gods, Fabullus, to make you all nose".[43] As one scholar has observed, Catullus here purveys not just perfume but also his

35 On the poppy and the ancient use of its narcotic and sedative extracts, see Baumann (1993: 69, 72). Poppy-seed is *soporiferum papaver* in Vergil, *Aeneid* 4.486.

36 Catullus 61.57.

37 Ibid. 61.87–89.

38 Ibid. 61.102–5.

39 Ibid. 61.33–35.

40 Ibid. 61.21–25: *floridis velut enitens / myrtus Asia ramulis / quos Hamadryades deae / ludicrum sibi roscido / nutriunt umore*.

41 Pauly-Wissowa, *Real-Encyclopädie der classischen Altertumswissenschaft* 1.2.1728.

42 Faure (1987: 166–67). Cicero mentions an *alabaster* of perfume at *Academica* 2 frag. 8. On the phallic shape of these jars (and ancient jokes thereon), see Henderson (1991: 120).

43 Catullus 13.11–14.

own softly scented verses.[44] In this regard, his task in Poem 61 is not terribly different, for as surely as Junia must seduce Torquatus, Catullus must seduce his readers – first and foremost among whom, of course, is the same Torquatus, a close friend, judging by the tone with which the poet addresses him. He thus begins this seduction not with the smell of a "common herb" but with what Roman readers (or at least, elegant admirers of sophisticated Roman ladies) would have recognized as the scent of a woman.

We may, in fact, go further and, along the way, offer a new solution to a vexing puzzle. Poem 13 has inspired a number of scholars to look for a second layer of meaning that makes the poem's second half humorous, pornographic, or both.[45] There have been dissenters who have objected that "a nose is a nose is a nose",[46] but those who detect something more going on here than meets the eye (or nose) are surely right. Nevertheless, it does not seem necessary to suppose that the *unguentum* Catullus will give his friend is an "ointment which aided anal congress with his *puella*" (Hallett 1978: 748), or "an unmentionable substance" used by prostitutes and the like (Case 1995:874), or even code for the "vaginal secretions which sexual excitement causes to flow" in the poet's girlfriend, the sexual use of whom is the real gift the poem thereby promises euphemistically (Littman 1977: 123). We simply need to ask, instead, what part or parts of her body a Roman woman perfumed. For if her genitals were regular objects of this anointing, then the sexual significance of Catullus' *unguentum* needs no special pleading: the whole joke rests, as readers long have suspected it must, on the poem's final *nasum*, which embodies olfactory (and other) pleasures for Fabullus even as it proposes the fantasy of a nose as big as his whole body with which not only to smell but to pleasure her.

For medical purposes, at least, the evidence that ancient women applied unguents of marjoram to their genitals is clear. The first-century CE pharmacological writer Dioscorides includes recipes both for *amarakinon* and for *sampsoukhinon* (from *sampsoukhon*, generally Latinized as *sampsuchum*, which Servius gives as an earlier name for *amaracus* and which Pliny explains as the herb's Egyptian and Syrian name, whereas *amaracus* was Sicilian[47]). Dioscorides describes *sampsoukhinon* (Latin, *sampsuchinum*) as follows:

44 "Thus, Fabullus would want to become all nose so that he could better appreciate the poetry Catullus has to offer", Bernstein (1984: 130). Horace, *Odes* 4.12.13–16, generally thought to play on Catullus 13, offers instead an exchange of poetic emblems: Horace's wine for Vergil's perfume; discussion in Putnam (2006: 96–98).

45 A sceptic of such readings herself (see below), Richlin (1988) nevertheless notes that their cue lies in the poem's cavalier play on the *puella* and her *unguentum* as interchangeable commodities to an extent that the former's "human function almost disappears" (357). For a more extensive review of recent interpretations of the poem than is provided below, see Gowers (1993: 229–44), who offers her own provocative reading of the poem and its *unguentum* as emblems of "those aspects of Catullus' writing that are both most wickedly suggestive *and* most elusive and intangible: the indescribable something that cannot be written down in a recipe" (244).

46 For a defence of the conservative view against "revisionists", see Witke (1980). See also Nappa (1998), who, while insisting that "we must not confine ourselves to the sexual possibilities of a poem like 13", offers a reading that he hopes will not "desexualize the text" entirely: "The union envisioned by this poem includes all these individuals [Fabullus, Catullus, the *puella*], not in a sexual act particularly, but in the *conuiuium*, spiritualized, as it were, by the divine *unguentum*" (390). Despite her title, Dettmer (1989), "Catullus 13: A Nose is a Nose is a Nose", offers a series of arguments for taking *nasus* as a double-entendre for "phallus".

47 Pliny, *Natural History* 21.61.

> It has warming, attenuating, and sharp properties. It is efficacious for closings and twistings of the uterus, it draws down the menses and the afterbirth, it revives those in a state of uterine suffocation, and it soothes pains of the lower back and groin. But because it hardens the *pudenda muliebria* with its excessive astringency, it is best used with honey.[48]

This last suggestion may have something to do with the presence of honey in the preparation of *amarakinon*, described by Dioscorides a few chapters later. Among its many uses, *amarakinon* "dissipates uterine indurations and swellings" and "sets the menses going when applied to the cervix", which means that, like other emmenagogues, it is a potential abortifacient.[49] Pliny too offers a discussion of the medicinal uses of marjoram, first describing rudimentary poultices of leaves, vinegar, and salt; these repel scorpions and are "very beneficial when used for menstruation".[50] He then provides this note on marjoram extract:

> An oil (*oleum*) is made from marjoram which is called *sampsuchinum* or *amaracinum* and is used to warm and soften muscles; it also heats the womb.[51]

He later notes an herb which "some call *amaracus*", a concoction of which is indicated for "hardening or inflammation of the womb".[52]

To be clear, Dioscorides and Pliny list a wide variety of other medical benefits of marjoram extracts, for both men and women. But gynaecological uses, including topical application to the genitals, are among these. What, however, is the relationship between these medicines and the perfume with which some of them, at least, share a name? Pliny's medical notes do not come from his excursus on perfumes in book 13 but rather appear among his pharmacological observations in book 21; it may also be significant that Pliny here refers to *amaracinum* as an oil (*oleum*), whereas the perfume was an ointment (*unguentum*). Likewise, Dioscorides says nothing about the use of the compounds he describes as perfumes, a matter admittedly beyond his scope, but still surprising not to see mentioned in passing, given the perfume's fame and the length of his discussion of *amarakinon*, of which he describes several varieties.

Other considerations, though, muddle any clear distinction. Implicitly linking scent with medical potency, Dioscorides recommends choosing a *sampsoukhinon* "smelling of much marjoram".[53] Pliny, in turn, describes the use of marjoram poultices on the island

48 Dioscorides, *De materia medica* 1.48.2. Translation from Beck (2005: 35).

49 There is a modern debate about the effect of essential oil of marjoram on menstruation and pregnancy: see Guba (2000: 18–19). For an extensive account of the therapeutic properties of sweet marjoram and its extracts, see Potty and Kumar (2001). On smell as an ancient gynaecological therapy, see Totelin, this volume.

50 Pliny, *Natural History* 21.163.

51 Ibid. 21.163.

52 Ibid. 21.176. Among its several names, Pliny first lists *parthenium*, which raises the possibility that this is the plant called *parthenice* by Catullus. Pliny's description both of the plant and of its uses resembles pellitory of the wall (*Parietaria officinalis*), the *Oxford Latin Dictionary*'s first meaning for *parthenium*, though it associates this *locus* instead with feverfew, s. v. *parthenium*, and with chamomile, s. v. *perdicium*, also listed by Pliny as a name used for the same plant.

53 Dioscorides, *De materia medica* 1.48.1.

of Cyprus, home of the "most prized, aromatic" plants (*sampsuchum sive amaracum in Cypro laudatissimum et odoratum*).[54] Medicine and perfume shared not only ingredients (something true of the two industries generally, as the lists of ingredients in Theophrastus, Dioscorides and Pliny make clear) but also centres of production. Dioscorides opens his discussion of *amarakinon* by noting that the best one came from Cyzicus, which Pliny too mentions, in his discussion of perfumes, as the source of a famous pure essence of *amaracus*.[55] Dioscorides also notes an especially sweet-smelling *amarakinon* (called *hēdukhroun*) from Cos, likewise given by Pliny as the origin of a prized amaracine perfume.[56] Finally, Amaracus, the inventor of "royal perfume" noted by Servius, is specified by other sources to have been the son of Cinyras, mythological king of Cyprus (and father also of Myrrha, who would give her name to the myrrh tree and its aromatic resin used in perfumes); Pliny, as we just have seen, praises the medicinal strength of the same island's famously fragrant plants of *amaracus*/*sampsuchum*.[57] In this last regard, it can scarcely be a coincidence that Cyprus still produces aromatic and therapeutic oils of marjoram, both from sweet marjoram proper (*Origanum majorana*), of which two varieties grow on the island, and from its very close cousin, "Cyprus oregano" (*Origanum dubium* or *cordifolium*), an indigenous species that grows wild in the island's mountains.[58] This last is the basis of an oil manufactured and sold by the monks of the Kykko Monastery in the Troodos Mountains – a tantalizing hint of an enduring link between such oils and the island's centres of cult.

Cyprus, of course, is also home to the mountain that is home to the forest in which grows the *amaracus* on which Venus puts Ascanius to bed in Vergil. Given what we have just seen, it seems unlikely that the poet chose Cyprus only for the banal reason that it was home to the most famous centres of Aphrodite's worship; he must have known, as did Pliny, that the island was famous for its *amaracus*. Paul Reinhold Wagler, author of a two-volume study of the oak-tree in the myths and rituals of antiquity and beyond, and of a more diminutive article on *amaracus* in Pauly-Wissowa,[59] somewhat predictably suggests that the latter bore a sacred and even magical connection to the Liebesgöttin. We might object that any link would more aptly be described as medical rather than magical: *amaracus* was a famous ingredient in gynaecological (and other) cures used on Cyprus, quite possibly in and around its sanctuaries of Aphrodite. But since the same goddess could just as appropriately have lent her sanction to a divinely seductive perfume, she scarcely helps us to sort

54 Pliny, *Natural History* 21.163. Archeometric analysis of finds at Pyrgos-Mavroraki now confirms the use of marjoram in the manufacture of perfumes already on prehistoric Cyprus: Belgiorno (2007: 41).

55 Dioscorides, *De materia medica* 1.58.1; Pliny, *Natural History* 13.14.

56 Dioscorides, *De materia medica* 1.58.1; Pliny, *Natural History* 13.5.

57 Pauly-Wissowa, *Real-Encyclopädie der classischen Altertumswissenschaft* 1.2.1726 (Amarakos 1); Pliny, *Natural History* 21.63.

58 Tsintides *et al.* (2002). *Origanum dubium*: "A valuable aromatic oil (locally known as 'rianelaio') is obtained by distillation, mainly at Kampos and Tsakkistra, and it is used in perfumery and medicine" (371). *Origanum majorana* (which the authors identify with ancient *amarakos* and *sampsoukhon*): "[I]t is common locally to distill the leaves to obtain an essential oil that is used in perfumery and medicine" (372). In the end, it seems doubtful that *amaracus* in our ancient sources reliably indicates only *Origanum majorana* (= *Majorana hortensis*), especially given that even modern perfumery shows a certain degree of terminological slippage between marjoram and oregano (and even thyme): Groom (1997: 204, 238).

59 Wagler (1891); Pauly-Wissowa, *Real-Encyclopädie der classischen Altertumswissenschaft* 1.2.1726–28.

medicinal purposes from cosmetic ones, on Cyprus or elsewhere.[60] Vergil, for one, invokes Venus' Cypriot *amaracus* not for its medicinal (or magical) properties but, rather, for its scent, which is precisely why Servius seizes the opportunity to recount the origins of perfume.

Ultimately, regarding antiquity's various oils and unguents of marjoram, it is difficult to know whether we are dealing with single substances with a dual use or whether particular compounds were made and purveyed specifically either as medicine or as perfume. Probably we can imagine a bit of both and, one way or another, a certain amount of productive confusion in the minds of a consuming public. In other words, real or perceived medical benefits probably have at least something to do with the enduring popularity of the perfume amaracine, and vice versa. Nevertheless, it was as a scent that amaracine became proverbial, for it is a perfume, not a medicine, that perplexes the uncouth pig invoked by Gellius and Lucretius.[61] And this brings us back to the jilted lover who, in the latter, showers his beloved's bolted door with flowers and amaracine:

> But the lover, shut out, weeping, often piles her threshold with flowers and garlands, perfumes her haughty doorposts with amaracine (*postisque superbos/ unguit amaracino*), and, desolate, plants kisses on the doors.[62]

Having concluded that *amaracus* was sacred to Venus, Wagler supposes that the lover here applies amaracine not as a perfume but as a kind of magical potion intended to

60 The *Homeric Hymn to Aphrodite* (5) associates the goddess and Cyprus with a perfume even more luxurious than amaracine, albeit one seldom made available to mortals: "ambrosial oil", derived from or the same as (the matter deserves better sorting than it seems to have received) the ambrosia – literally, "immortality" – consumed by the gods and famous for its heavenly scent (on which, generally, see Faure 1987: 152–56). The richly odoriferous language begins with the fragrance of incense and burnt sacrifice – either of which could have included local herbs like "Cyprus oregano" – and ends with the goddess' specially formulated perfume: might the latter, here at least, apotheosize the island's real-world production of amaracine? More generally, Belgiorno (2007: 53–57) sketches the provocative argument that Aphrodite's prehistoric evolution from fertility goddess to goddess of beauty may already have been driven by the fame of cosmetics from Cyprus.

61 One does wonder, in light of what we have learned, whether the proverb carried a second, obscene layer of meaning, given that, in Greek at least, the pig (*khoiros*) "is the land animal to which the cunt is most frequently compared in double entendres; this word seems to have been a popular slang expression", as observes Henderson (1991: 131). The only Latin word attested as an animal metaphor for the female genitalia is, in fact, *porcus*, and this only in a single passage in Varro (*On Agriculture* 2.4.10), who, however, indicates wide use: *nam et nostrae mulieres, maxime nutrices, naturam qua feminae sunt, in virginibus appellant porcum, et Graece choeron, significantes esse dignum insigne nuptiarum*, "For even our women, especially children's nurses, call the female organ in older girls 'pig', *choeros* in Greek, by which they mean that it marks them as ready for marriage" (which Varro improbably connects to the pig-sacrifice of the now imminent wedding); discussion in Adams (1982: 82). Henderson (1991: 131) explains that *khoiros* "indicates the pink, hairless cunt of young girls as opposed to that of mature women" (for whom other pig-words were sometimes used, p. 132); this is ratified by Varro for *porcus*. Were the proverb *nihil cum amaracino porco*, we would be tempted to hear this second sense: a young girl's genitals need no deodorant. But this seems more difficult to understand from *sus* ("sow"), the Greek equivalent of which (*hus*) indicates instead the genitals of a mature woman (ibid.; cf. Lucretius 6.974, cited above, where *sues*, just following the proverb, are *saetigerae*, "bristly"). The humour would thus depend simply on the absurdity of the second layer of meaning producing the opposite answer to the first: the pig has nothing to do with amaracine – but not so the "pig"!

62 Lucretius, *On the Nature of Things* 4.1176–79.

summon love.[63] It is true that doorways were especially charged places for the Romans, but this particular doorway, like Fabullus' nose, is something more. The immediately preceding lines are addressed directly to the lover by the poet:

> But let her face be as lovely as you like, with the power of Venus coursing through her limbs. She's hardly the only one, and we got by without her before. You can be sure that she does the same things (we all know it) that an ugly woman does, and that even she fumigates her wretched body with foul smells (*et miseram taetris se suffit odoribus ipsa*), while her slave-girls keep their distance and quietly snicker.[64]

Lucretius next describes the lover's antics at the door and then concludes: *quem si, iam admissum, venientem offenderit aura / una modo, causas abeundi quaerat honestas*, "If he is let in and just one whiff reaches him as he approaches, he would scramble for an excuse to leave".[65]

Scholars have long struggled to understand whether this "whiff" (*aura*) is of a perfume or of what it seeks to conceal.[66] But Robert Brown almost certainly has solved the mystery by finding here instead a reference to the well-attested ancient medical practice of "fumigation", which "involved the application of fumes to the nostrils or, commonly in the case of gynaecological complaints, to the womb by means of a tube introduced into the vagina". These fumes might, depending on the ailment, be pleasant or "evil-smelling": for the latter, "among the substances used were sulphur, burnt hair or wool, urine, and dung – which accounts for the Lucretian epithet *taetris*" (Brown 1987: 296–97). Amy Richlin adds the observation, "Here the woman's body, as often, is mapped onto the parts of the house"; "Lucretius sums up: women know that if men realized what it was like inside, they would run away" (1995: 190). In other words, the amaracine smeared on this lady's doorposts, whether or not Lucretius means to make such efforts all the more pathetic by giving them mock-magical or religious overtones,[67] is first and foremost a crude metaphor for the lover's naïveté regarding what women's bodies (and what they do to them) "really" smell like.[68]

63 Pauly-Wissowa, *Real-Encyclopädie der classischen Altertumswissenschaft* 1.2.1726–28.

64 Lucretius, *On the Nature of Things* 4.1171–76.

65 Ibid. 4.1180–81.

66 Summary in Brown (1987: 296).

67 For the latter, see Brown (1987: 300).

68 The hapless hero of Jonathan Swift's "The Lady's Dressing Room" (1730), for which our Lucretian passage is the model, learns the same lesson. Thenceforth, "His foul imagination links / Each dame he sees with all her stinks", from her pomades to her excrement: Swift (1983: 451; ll. 121–22). Compare the aphoristic counsel of a character in Plautus' *Mostellaria*, *mulier recte olet, ubi nihil olet*, "a woman smells right when she doesn't smell at all", where the advice is against the use of perfume lest, rather than covering odour, it mingle with a woman's sweat to produce a disgusting "broth": "You can't tell *what* exactly the smell is, but you do know this: it stinks" (273–78). Discussion in Stevens (2008: 160–62). Further on the relationship between perfumes and underlying odours, see Bradley, this volume pp. 138–39.

The Lucretian lover is a satirical fiction, of course, but he does permit us, perhaps, to imagine the sheltered Roman man who had slept only with well-perfumed ladies, or even one ready to suppose that women smell naturally like marjoram.[69] At another extreme (or if you prefer, on the flip side of the same coin) are Lucretius and his imagined readers, who share with him, he assumes, a revulsion that combines a general distaste for human odours (intensified by the whole poem's obsession with bodily putrefaction) with unmistakable anxiety about specifically female bodies. But between these two extremes, let us imagine more subtle and sophisticated lovers – for example, as far as it goes, Catullus and "Lesbia", the likely *puella* of Poem 13 – who used perfume less to conceal than to complement and even intensify the body's natural scents.[70] Perfume, for such a pair, marks and even multiplies erogenous zones (ancient women did not, of course, apply perfume *only* to their genitals); it also connects bodies in atypical ways. Indeed, Catullus probably implies that this particular perfume has invited him – or at least would tempt Fabullus – to perform a sexual act not normally licit for a Roman male, i.e., cunnilingus, object of general Roman scorn that, however, sometimes seems to mask fascination.[71] This is mirrored by Fabullus' own whole-body pleasure, both with and as a nose.

69 They really do, according to Debay (1846: 49–50): " … la tendre odeur de marjolaine que la vierge exhale est plus douce, plus enivrante que tous les parfums d'Arabie; masquer ce parfum naturel par une odeur empruntée serait un contre-sens énorme". (For an analogous view about the naturally pleasant scent of young brides, see Xenophon, *Symposium* 2.3.) Debay, too, lived in an age that used marjoram in perfumes – in the immediately preceding pages, he himself has included it in two recipes for potpourri! – and if his comparison is not pure fantasy but is based on experience, then one wonders whether he was duped by a young woman who had resorted precisely to the artifice he decries, or who simply was innocently clean: his contemporary G. W. Septimus Piesse (1857: 74) notes that essential oil of *Origanum majorana* "is extensively used for perfuming soap, but more in France than in England". On the increasingly floral olfactory tastes of Debay and Piesse's age and their attendant notions of hygiene, see Corbin (1986: 176–99).

70 Their comic opposites, we might say, are Cinesias and Myrrhina in Aristophanes, *Lysistrata* 940–46, who fight over the proper perfume for marital sex: Cinesias, suggests Witke (1980: 327), wants one which will "replace or submerge a natural body scent". Of course, an oil-based perfume is also a potential lubricant, and this too may be part of the joke somehow (perhaps suggesting the kind of sex Cinesias wants?).

71 See Richlin (1992: 49, 59, 83, 99, 109, 134, 148, 235, 245, 249 n. 18). The last of these treats Catullus 13, where, however, Richlin seems to consider but reject an insinuation of cunnilingus, siding with Witke (1980), "on maintaining the integrity of the context of a poem", noting that Catullus "barely hints of cunnilingus elsewhere, and never mentions fellatio or female genitalia without disgust". In this light, however, perhaps Catullus' point is this: he himself has enjoyed the perfume on its own terms, but the same would eventually invite the *os impurum* of Fabullus to go too far. On cunnilingus, see also the excellent discussion in Parker (1997: 51–53, 57, 62); also Williams (1999: 199–200, 346–48), with numerous examples. See also Bradley, this volume, pp. 135–37.

Catullus does not give the name of his girlfriend's perfume, but his description of it as a gift from "Venuses and Cupids"[72] adds a bit of evidence to the already reasonable assumption that it was an amaracine, like the one smeared on the doorposts of the similarly high-born and well-coiffed lady derided by his contemporary Lucretius. In any case, Catullus the connoisseur cannot have been unaware of the perfume that his fellow poet expects any reader to recognize. We can hardly suppose, in other words, that the Catullus of Poem 13 does not have a woman's perfume somewhere on his mind when he opens Poem 61 with a Hymen softly scented with *amaracus*.

What we have seen in Latin now enables us to read our fragment of Chaeremon, with its final invocation of *amarakos*, as a miniature masterpiece of synesthetic pornography:

> One of them was lying there, putting her pale breast
> on display in the moonlight, since her dress had slipped down,
> while the dancing had exposed the left hip
> of another. Exposed to open view,
> it made a living image visible, and its white tint
> balanced the effect of the shadowy darkness on my eyes.
> A third exposed her forearms and lovely hands,
> wrapping them around the female neck of another girl.
> This one allowed a glimpse of her thigh beneath the folds
> of her shredded robes, and hopeless longing
> for her radiant beauty impressed itself upon me.
> They sprawled out asleep on calamint,
> and had woven black-flowered violet petals together
> with crocus, which wiped a shade
> that resembled sunlight on their woven robes.

72 Cf. Propertius 2.29.18, where Cynthia emanates "scents not from the grasses of Arabia, but which Love (Amor) himself made with his own hands". It has been common to suppose that the contrast is between perfume of any kind and her natural scent rather than between two kinds (one Orientalized) of perfume. Thus Quinn (1963: 176) connects the passage to the use of *aura* "by the Roman poets to represent the mysterious breath of fascination that emanates from an attractive woman", comparing, e.g., Horace, *Odes* 2.8.21–24, describing the irresistible charms of Barine, whom even "newly wed virgins fear, lest your *aura* cause their husbands to tarry" (*metuunt … nuper / virgines nuptae, tua ne retardet / aura maritos*). In his edition of Catullus, Quinn (1973: 135) then uses the Propertius to ask whether the *unguentum* of Catullus 13 was not, in fact, "the alluring fragrance of her person". Horace's allusion to Barine's *aura*, however, is actually a clever joke, *hysteron proteron*, on her perfume, by the lingering scent of which on their husbands, said wives would deduce the real reason for their delay (an enduring motif in the combined histories of perfumery and infidelity!). Several Pompeian wall paintings show *Amores* manufacturing perfume, adding doubt to the notion that perfume made with Love's own hands can only be a woman's unaided scent; on these (with black-and-white reproductions) and their relation to the local perfume industry, see Mattingly (1990). Surely the point underlying all of the above is productive confusion between natural and artificial scents, real or supposed. In a different vein, Kilpatrick (1998) interestingly argues for a connection between the Catullan poem and the perfume given by Venus to Phaon, who drove Sappho to suicide, but considering the widespread association of perfume with Venus and Cupid(s), such a specific allusion is difficult to imagine in the absence of other textual cues.

> And dew-swollen marjoram (*amarakos*) that had grown
> in the marshes extended its tender stalks.[73]

The fragment's erotic escalation passes through three phases. First, the narrator's secret gaze (which is ours too, of course) proceeds not only from girl to girl but also steadily downward, anatomically, until it reaches an exposed thigh. Dancing then yields to sleep, an opportunity, we are surely meant to imagine, to step out of hiding and move closer without being seen. And finally comes a series of richly sensual floral metaphors that emphasize colour, all made even more sumptuous by Chaeremon's echoes of the technical language of Greek painting,[74] blending an ecphrastic gaze into his voyeurism. Only at the end does our visual pleasure yield to an olfactory one – we must be very close now! – and in a poetic and pornographic finale that transcends both word and image, we breathe deeply what had become one of the very smells of sex.

These literary windows on a vast world of ancient perfumery (and of perfumed bodies) make it impossible, in the end, to read Venus' bed of *amaracus* in Vergil as a mere matter of botany. (Dryden, in fact, was righter than he knew.) Vergil, consciously or not, begins to make less innocent associations already several lines before we reach the mountains of Cyprus by having Venus carry Ascanius through the air "caressed in her lap" (*fotum gremio*). As we already have noted, this anticipates the antics of the alter-Ascanius, Cupid, whom, lines later, the unsuspecting Dido "now and again caresses in her lap" (*interdum gremio fovet*) while the god works his spell.[75] It is Dido, in fact, who is the real key to the whole passage. Vergil is about to embark on the long romantic episode for which, for better or worse, his poem is best remembered, a story that ends, famously, with betrayal but which opens, necessarily, with seduction. And just a few lines before that seduction begins in earnest, the poet perfumes his page with the unmistakable scent of an irresistible woman. Aeneas is still steps away from Carthage's palace, but the reader has already caught a whiff of a "royal perfume" – three long books before a queen's life will be scattered "to the winds".[76]

73 The text is preserved in Athenaeus, *Deipnosophistae* 13.608b–d, and I borrow here the translation of Olson's Loeb, vol. VII (2011: 74). Both text and translation present a number of difficulties, regarding which see the earlier version of the present essay, Butler (2009: 108 n. 51), with references to earlier discussions. The final lines belong to a long tradition of using fertile fields as a genital metaphor, where foliage often figures pubic hair: see Henderson (1991: 27, 46, 135–36), with numerous examples, the most famous of which is surely the Boeotian girl of Aristophanes, *Lysistrata* 87–89, whose "field" is celebrated for its "very nicely weeded pennyroyal".

74 In particular, of *skiagraphia*: see Collard (1970: 33–34). On the term and technique, see Keuls (1975).

75 Vergil, *Aeneid* 1.692; 718. Cupid's maternal instructions likewise place him in Dido's "lap" (683).

76 Ibid. 4.705.

6

ROMAN URBAN SMELLS: THE ARCHAEOLOGICAL EVIDENCE[1]

Ann Olga Koloski-Ostrow

Introduction

To modern noses the ancient Roman city would have been a very smelly place. Despite the fact that the Romans themselves may not have been as sensitive to all the smells around them as we would be today,[2] identification of those smells as precisely as possible from the archaeological record can tell us a great deal about how Roman society was organized within cities, how cities themselves functioned and what the quality of life was like for people of different status in those cities. The archaeological evidence from the ancient cities of Pompeii, Herculaneum, Ostia and Rome, the best preserved sites we have in Roman Italy, and testimony from our literary sources, especially those related to Rome, give us a vivid impression of how smells manifested in the key institutions and structures of these Roman cities. From the crisp and fresh smells of crowded Roman food markets to the sour odours of the street pavements sidewalks, and endlessly burning funeral pyres sizzling with human flesh, urban daily life was a source of titillation for the nose.

This chapter systematically explores the smells of the Roman city to try to answer three main questions: 1) what were the smells of a Roman city? 2) once we identify and verify smells, did they play any role in the social organization of Roman cities such as where Roman elite lived versus where the poor lived? 3) did smells have any effect on the physical layout of urban streets, of zoning residential, public and commercial buildings, or of the placement of burial grounds and dumps? While answers to these questions may seem fairly obvious in some instances, the evidence reveals some surprises.

Urban infrastructure: sewers and drains, streets and toilets

Because the Romans embedded finely constructed sewer systems in many of their cities – Herculaneum, Ostia, Pompeii and Rome all display good examples insofar as they are excavated – we might think that Roman planners were truly concerned about removing

1 I am very grateful to the staff of the Royal Netherlands Institute in Rome for support and hospitality during January, June and August 2013. Former director Prof. dr. Gert-Jan Bergers, Dr. Jeremia Pelgrom, and head librarian, Janet Mente, must be singled out for their kindness and advice throughout this project.

2 See Morley, this volume, for a lively discussion that counters some of my argument here.

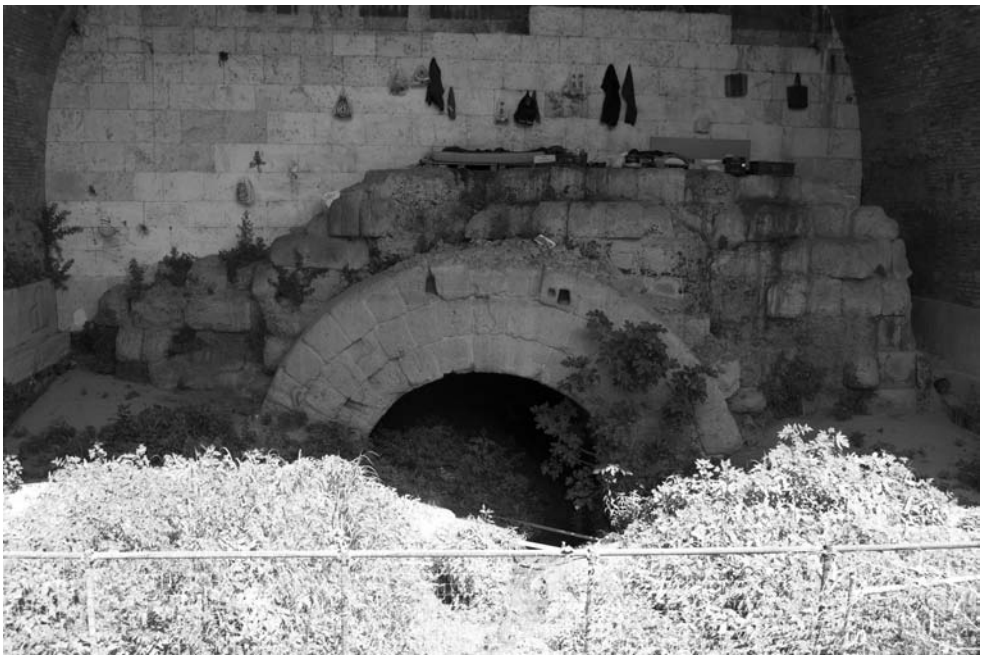

Figure 6.1 Main outlet of the Cloaca Maxima into the Tiber. Photo: J. Hopkins.

urine, excrement and other rotting garbage from their cities. We can easily fall into this assumption, since it fits so well with our own modern ideas about why we have sewer systems, namely to improve sanitation. We can begin with Rome and the Cloaca Maxima, the Great Sewer, and see where the evidence actually leads us (Figure 6.1).

Unfortunately, so much of the architecture that the Cloaca Maxima might have served is now buried under the modern streets of Rome. This fact makes Rome a somewhat tricky case because of the many gaps existing in our understanding of its operation. Still, a closer examination of the parts of the sewer that are accessible clearly shows that the Cloaca was not constructed with much thought about what we would call sanitary engineering. The purpose of the Cloaca was primarily geared toward the removal of water that pooled on uneven streets in Rome, and for draining water from low-lying areas of the city after times when the Tiber River flooded, which happened quite frequently.[3] If we accept that drainage was the primary function of the Roman sewer, this significantly impacts our understanding of the Roman perspective on urban smells and issues of health and sanitation.[4]

While the many orifices of the Cloaca received excess street water, they also, of course, would have received eroded soil, animal dung and other refuse cluttering urban

3 See, for example, Dio. 39. 61. 1–2. for a vivid account of a flood in Rome in the year 54 BCE. For a list of the main inundations of the Tiber, especially in ancient times, see Lugli (1934: 231ff.) and now Aldrete (2006: 91–165) for the immediate and delayed effect of floods.

4 For new work focusing on the drainage system at Pompeii (the mechanisms for water removal as opposed to water supply), see Poehler (2012).

vistas. Apart from what got stuck in the channels of the sewer itself, all of this material drained off into the Tiber.[5] The Tiber was also Rome's major drinking supply before the construction of the aqueducts, but clearly no one was paying much attention to the polluted detritus being dumped into it from the major exit drains of the Cloaca.

The Great Sewer in Rome, then, was not part of a master plan to sanitize Rome, as modern scholars have tended to view it. Construction of sewers required a huge amount of hydraulic technology, time and expense and surely rivalled all other parts of a city's urban infrastructure, including construction of multi-story apartment buildings, streets and aqueducts, so they were indeed significant. Perhaps, another way to think about Roman sewers, however, is to say that they moved unbearably odouriferous water[6] away from where it hindered cleanliness, economic growth, urban development and even industry, but did not themselves contribute much at all to improved urban sanitation.[7]

In the town of Herculaneum archaeologists have cleared two sections of the urban sewer:[8] one under the full length of Cardo III on the western side of the town, and the other under half the length of Cardo V on the eastern side. At the bottom of the sewer under Cardo V, the first excavators found an ancient deposit of hardened sludge measuring about 1.35 meters high.[9] No amount of water, however fast flowing, would ever have been able to remove it. Such a substantial build-up of debris would have sat there festering for months and years on end, until natural chemical changes lessened its stench and rendered it an innocuous, if annoying, barricade inside the sewer channel. I would argue that the discovery of such deposits in the sewer – and they occurred in the Cloaca Maxima regularly as well – strongly supports the notion that urban sewer systems provided minimal sanitary benefits.

The sewers of Pompeii, a town of somewhere between 10,000 and 12,000 inhabitants, are virtually unexplored,[10] although we know that a branch ran from the Stabian Baths to the south of the city, a small section has been found in Reg. III, a few feet of sewer drains ran underneath the latrine attached to the south side of the Grand Palaestra and two sections exited the city from the Forum Baths, also running under the Forum Latrine, and from the south of the forum under the street that led to the Marine Gate at the western side of the town. These sewers, however, were likely constructed in close conjunction with two sets of the city's public baths (Forum and

5 Cf. Pliny, *Letters* 10.98 and 99 (in which the Emperor Trajan replies) concerning an open sewer in Amastris, which was essentially a river completely clogged with sewage and other debris. Ulpian's *Digest* 43.23.1–2 records an edict of a *praetor* in Rome stating that the sewers were to be kept clean and in a good state of repair because they might cause the collapse of buildings (*ruinas minantur immunditiae cloacarum*). One way to understand this remark is that it was a kind of warning about the potential damage that poorly maintained sewers might cause. Major clogs in the Cloaca, for example, might have led the backup of water to scour out the foundations of cheaply constructed buildings (especially mid-brick structures), therefore causing collapses.

6 Such pools are well attested in our sources for seventeenth- and eighteenth-century Paris. Cf. Corbin (1986: 31–34). See also Reid (1991: 187 and nn. 14–15).

7 Koloski-Ostrow (forthcoming: chapter 3), with maps, plans and extensive discussion of the layout of the Cloaca Maxima in Rome. See also Hopkins (2012). For older sources on the Cloaca: Bauer (1989); Bauer (1993); and Reimers (1991).

8 Koloski-Ostrow (forthcoming: fig. 92) for a plan of Herculaneum's sewers by G. Jansen. See also Camardo (2011).

9 Maiuri (1958: 469).

10 Koloski-Ostrow (forthcoming: fig. 91) for a plan of Pompeii's sewers by G. Jansen.

Stabian), and their main purpose was to remove substantial quantities of dirty water, which in turn flushed some public toilets down and out of the city. From what we know so far, it appears that many other parts of the city simply had no sewers, so filth, manure and dirty water were just washed down the sloping streets at whatever pace the cycle of winter rains allowed. In the summer months, the streets must have been a stinking mess, making the famous stepping stones located throughout the city crucial for crossing streets.

The sewers of Ostia also remain generally unexplored, but we have been able to identify many of the sewer covers in the city that have allowed us to trace some of the main sewer lines.[11] The town, which was probably somewhat larger than Pompeii by a few thousand inhabitants, was laid out on a rise slightly higher than the surrounding plain, but the ground at the top of the slight mound was still quite flat. As the town was very close to the Tiber, flooding was a constant problem here too, so construction of cesspit toilets was not practicable. We can surmise, therefore, that the Ostian sewer system was possibly meant for excreta as well as run-off, although we also find cesspit toilets in some apartment houses located off their courtyards.

We can attest, for Pompeii and Herculaneum, at least, a clear preference for internal cesspit toilets in domestic dwellings and no sewer connections in those dwellings. Several ancient sources state that Roman *cloacae* needed manual cleaning from time to time,[12] so they were not self-cleansing.

Finally, to conclude this brief overview of sewers and drains, I would note that Frontinus in *De aquis* has nothing to say either about the construction or administration of the sewers in Rome. His silence is frustrating on the one hand, but, on the other hand, can be read as a clear demonstration that the sewers were simply unimportant features in the discourse about water. Below, in our discussion of smell in relation to the urban water supply, we shall return to this point.

The streets of Rome were probably covered with vast quantities of animal dung, vomit, pee, shit, detritus, garbage and filthy water, and were heavily travelled to and from markets by dusty carts moving produce and supplies, some of it odouriferous to be sure. Juvenal[13] provides us with a vivid, if satirical, image of street life in the first century CE. While much of what he laments about in his satire deals with noise more than smell, with a little imagination the smells emerge quite powerfully from the text as well: from wet mud – the mud on the streets is ultimately compared to the horrid "muddy whirlpool" of River Styx itself; from the sweat of too many people crowded into too little space; from the slowly lumbering animals with their nasty habit of voiding onto the streets; from the steaming foods filling the pots and pans on the heads of kitchen slaves scurrying by; and even from the construction materials precariously carried through the streets towards their unknown building sites, specifically fir and pine, woods whose smells were undoubtedly some of the more fresh and pleasant. Very much like the cacophony of sounds that made "the sick die from insomnia", the satire presents a colourful mixture of smells trapped on the narrow streets of the city. These disturbing and

11 Koloski-Ostrow (forthcoming: fig. 93) for a plan of Ostia's sewers by G. Jansen.

12 Pliny, *Letters* 10.32.2 mentions prisoners conscripted for the job of cleaning the sewers. See also Scobie (1986: 408).

13 Juvenal, *Satires* 3.229–55.

dangerous smells are also signifiers, like noise, that might have led an unsuspecting Roman housemaster walking the streets, not to the comforts of his home, but to the deadly waters of the River Styx.

According to Ulpian's *Digest*, written between 211 and 222 CE, connections to the sewers from private dwellings certainly were legal,[14] so we must wonder why so few property owners, at least in Pompeii and Herculaneum, connected their dwellings to public *cloacae*? Romans in those towns definitely preferred internal house cesspits to toilets placed over sewer lines.[15] In fact, almost every private house in Pompeii and Herculaneum, and in many apartment houses in Ostia (all of which offer better preserved archaeological remains than we find in Rome) had private, usually one-seater toilets, but they were not connected to the main sewer lines. Instead, the houses and apartments contained cesspit toilets that had to be emptied by hand. The contents were either sold to farmers for fertilizer or used in household gardens.[16]

Furthermore, private house toilets in Pompeii and Herculaneum were almost always located right in or near the kitchen area where food was prepared (Figure 6.2). The comforting smells from a hearty stew would undoubtedly have intertwined with the gross odours from the nearby open cesspit in the kitchen. We must wonder why Romans resisted connecting their toilets to the public sewers to expel this waste from their houses? One reason may be tied to that fact that Roman sewers openings had no traps, so one never could be sure what might climb out of an open sewer leading to a toilet.

We have at least one dramatic ancient story that illustrates the danger of owning a house with a connection to a public sewer in the first or second centuries CE. Aelian[17] tells us about a wealthy Iberian merchant in Dichearchia (Roman Puteoli, modern Pozzuoli) who once discovered that every night a giant octopus swam into the sewer from the sea and up through the house drain in the toilet in order to eat all the pickled fish stored in his well-stocked pantry. This story – perhaps an urban myth in its own right – dramatically illustrates how well-designed sewer channels could provide unwelcome access to houses for unwanted creatures, a mechanism in which unwanted matter was not always channelled in the right direction.

Even public latrines, multi-seater toilets (Figure 6.3) that were almost always connected to the main sewer lines of a city, posed serious threats to users. They were notorious for terrifying customers by exploding flames from their seat openings from gas explosions of hydrogen sulphide (H2S) and methane (CH4) that were rank as well as frightening, from the rats and other small vermin threatening to bite the bottoms of toilet users, and from the perceived threats of demons that the Romans believed inhabited these black holes leading to the mysterious underbelly of the Roman city. One late Roman writer tells a particularly exciting story about such a demon. A certain Dexianos[18] was sitting on the privy in the middle of the night, the text tells us, when a demon raised itself in front of him with savage and enraged ferocity. As soon as

14 Ulpian, *Digest* 43.23.1–2.
15 Town-by-town surveys still must be conducted to confirm this preference in all Roman towns.
16 Cf. Varro, *De re rustica* 1.13.4. and Columella, *De re rustica* 1.6.24.
17 Aelian, *De natura animalium* 13.6.
18 *Life of Saint Thecla, Miracle* 7. I owe this reference to Gemma C. M. Jansen. See also Jansen (2011b: 165–66).

Figure 6.2 Reconstruction of a house kitchen from Pompeii with the toilet beside the counter, from P. Connolly and H. Dodge, *The Ancient City: Life in Classical Athens and Rome*. Oxford: Oxford University Press, 1998, p. 148.

Dexianos saw the "hellish and insane" demon, he "became stunned, seized with fear and trembling, and covered with sweat". Such superstition would provide another good reason for avoiding sewer connections.

The Romans, then, seemed to understand that "poisonous effluvia"[19] of various kinds could emit from their sewers. To thousands of uneducated Romans these regular disturbances in the streets (emanating from sewer covers or from the holes in public toilets situated over sewer lines) would have corroborated a general urban superstition about the sewers.

19 See Lanciani (1888: 56).

Figure 6.3 Forum Latrine at Ostia. Photo: A. Koloski-Ostrow.

Residential architecture and smell: *insulae* and *atrium* houses

When we look closely at the evidence, cheek-by-jowl urban habitation in impoverished *insulae* (apartment houses) generated, intensified and disseminated smells that must have been almost overwhelming. M. Bradley covers in more detail the smells of the human body later in this volume, but we must at least mention here those that would have been a hallmark of life in an apartment building given minimal washing facilities and toilets: bad breath, dirty and lice-encrusted hair, flatulence from poor diet, sweat, stench from infected and oozing wounds and cuts, smelly armpits and other unsavoury odours related to poor health, insufficient hygiene and disease. Given these conditions, we can easily imagine the sour stench that would have filled the rooms and corridors of such buildings. Such smells embedded in the ancient urban fabric of daily life for so many thousands of people over so much time must have significantly influenced certain Roman customs and rituals. For example, these powerful inside smells very likely contributed to moving a variety of activities out onto streets, *fora*, and to other outside venues, in order to facilitate space for children to play, for social gatherings of both men and women, for washing and drying clothes, and for religious worship requiring fire and smoke, to name a few.

Tenement buildings, such as those located in Ostia and also in the partial ruin of a tenement surviving at the base of the Capitoline Hill in Rome, the so-called Casa di via Giulio Romano,[20] provide enough archaeological evidence to reconstruct some of the

20 Scobie (1986: 427).

smells that must have hovered in around them: from mould, dampness, charcoal fires, stagnant well water, and from cesspits too often clogged or overflowing. The ground floors of these multi-story buildings were ringed with countless small shops or manufacturing outfits occupying small spaces on their exterior walls. The smells of fire and smoke from burning ovens and odours from both food processing and food deterioration must also have suffused the rooms of the apartments on the upper floors. In addition, frequent urban disasters, such as major fires and flooding, would have left overwhelmingly bad smells lingering everywhere in and around these buildings for months on end.

Most of the smelly conditions I have described for *insulae* would have been true for cheap lodgings and inns as well. While the evidence on-the-ground for such flimsy institutions is modest at best, one vivid graffito (found in VIII.6.1.9, a bakery at Pompeii) hints at limited services and resulting unpleasantness: "We have wet the bed, I confess, guest; if you ask why: there was no chamber pot (in the room)."[21] Presumably, the Romans inhabiting *atrium* houses in Pompeii and Herculaneum endured a less oppressive combination of daily smells, since these cities were smaller than Ostia or Rome and fewer people would have occupied the more spacious quarters of *atrium* houses. Even so, a close look at the archaeology of these houses gives us some strong clues related to odours.

While not common, the occasional house in Pompeii (V.2.1, House of the Silver Wedding, for example) has a drain leading directly from the house toilet – a kitchen toilet in this case – into a garden, located just behind it to the west. Even though this arrangement seems fairly rare, when it did occur, it would have created a permanent stench in the gardens of such houses.[22] Another problem that would have constantly caused unwanted smells in residential dwellings was leakage from downpipes of toilets located on upper floors. Hobson identified fifteen upper-storey latrines at Pompeii, especially in regions V, VI, VII, VIII and IX.[23] The situation was similar at Herculaneum as well (Figure 6.4). The fittings of these terracotta downpipes loosened over time, and their contents would have spilled down the outside of the pipes, causing stink everywhere.

In addition, many houses had small stables embedded within their walls, such as VI.12.1–8, the House of the Faun. Keeping horses, mules, dogs, chickens, ducks, geese, possibly other fowl and even containers of dormice in the small, cramped stable of this house, or perhaps also allowing them some freedom in the peristyle garden areas, meant that the smells from these animals would definitely have spread across the property on the inside of the house. Animals stabled within bakeries[24] or flourmills on busy residential streets would also have contributed to the smells wafting into nearby houses (Figure 6.5). Perhaps only the so-called "cliff houses" in Region VIII on the south slopes of Pompeii might have avoided the intense farm smells emanating from many houses and from many directions, but moisture from the hillside would have produced other wet and nasty odours and possibly health problems for inhabitants there.

21 *Miximus in lecto, fateor peccavimus, hospes, Si dices quare, nulla metaella fuit*. The translation is my own. See De Vos and De Vos (1982: 59).

22 White (1970: 126 and 136 ff.).

23 For details and a full list of locations, see Hobson (2009: 71–77).

24 Twelve dead mules were excavated in a small stable in IX.12.6, the House of the Chaste Lovers, beside a large bakery.

Figure 6.4 One of the dead mules in the House of the Chaste Lovers (IX.12.6), Pompeii. Photo: A. Koloski-Ostrow.

Urban commerce: a miscellany of smelly shops

The archaeological evidence from Roman cities of first centuries BCE and CE quite clearly suggests that small businesses and manufacturing operations were not zoned to any particular section of a city. In Pompeii, for example, we find at least fourteen *lanifricariae* (shops probably related to working wool, but we do not yet have a precise understanding of them), eleven fulleries, six establishments for dyeing textiles and one tannery, and these are situated throughout the city. In addition, there are twenty-three mills with bakeries included inside, along with seven bakeries without mills. Only nineteen of these businesses were situated in *tabernae* (separate shops). Of the others, most were located in *atrium* houses that combined domestic and commercial functions beneath one roof.[25]

Many of these business operations had toilets, just as houses did, and mostly in similar locations such as the kitchen or related service areas. In I.6.7, the *fullonica* of Stephanus, for example, the (two-seater) toilet is directly next to the kitchen and only a few steps away from the main working area. In the House of the Oven (VI.3.27–28),

25 Flohr (2007). See also Wilson and Flohr (2011). Further on smells and Roman professions, see Bradley, this volume, pp. 139–42.

Figure 6.5 Downpipe in the House of the Double Atrium, Herculaneum (VI.29). Photo: A. Koloski-Ostrow.

the toilet is in the kitchen and only accessible from the workshop and the first floor. The location of toilets could vary. In house VII.1.36–37 containing a bakery, but without a kitchen, a one-seater toilet was situated directly next to the mill room.

In Rome as well we find a lack of zoning patterns either by social status or by the separation of residential and commercial activities,[26] and I would argue that areas not

26 L. M. Mignone, "Zoning Rome's Residents", unpublished paper given for the New England Ancient History Colloquium, October 11, 2012, at Brandeis University. Mignone argues that social differentiation in the ancient cityscape was essentially non-existent. Even with the scant literary, historical and archaeological evidence for residential patterns in Rome, she demonstrates that Rome was a city without an urban zoning plan, and that this omission was itself probably a Roman plan to keep plebeians well mixed with the elite for purposes of keeping fluid social patterns in the urban landscape.

Figure 6.6 Embedded *dolia* for oil at the Villa Regina near Pompeii. Photo: A. Koloski-Ostrow.

zoned actually created a kind of new urban zoning. By avoiding the social balkanization of the poor and underprivileged that exists in our cities and suburbs today, the magistrates of ancient Rome (and Pompeii) encouraged interaction and involvement among citizens of different social status that must have helped to preserve peace on the city's streets and helped to encourage cooperation during fires, floods, plagues and attacks. Certainly profit played a role here too.[27] Whether we are talking about the "moral geography" of siting brothels throughout Pompeii[28] or whether we are talking very generally about the placement of various shops and taverns (*tabernae*), bars (*thermopolia*) or restaurants and hotels (*cauponae*) within the city of Pompeii, new evidence demonstrates that profit, not zoning, determined the locations of almost everything, more than any other factor.

27 Ellis (2004). Kleberg (1957) was the first to try to survey the ancient Latin meanings of different types of food establishment.

28 Laurence (1994: 87) identified "deviant zones" where brothels, bars, cheap inns and similar outposts for lowlife at Pompeii must have been grouped from some sense of keeping them removed from the eyes of well-to-do Romans. McGinn (1992) rejected Laurence's idea of a "moral geography" at Pompeii for brothels, and argued instead that brothels were sited for profit. Ellis (2004) has convincingly demonstrated that all sorts of facilities designed for the production, display, transaction, and consumption of food and other goods and services were above all else also sited for profit.

Apuleius (*Metamorphoses* 9.12) gives us a fictional, but starkly horrific, picture of a small flourmill with a bakery inside it, located in some unknown Roman city in northern Greece of the second century CE. His description helps us to reconstruct the gruelling lives and smells of the impoverished slaves, workers and bakers (*pistores*) who might have laboured in one of the many well-preserved Pompeian bread shops (Figure 6.7):

> I observed, with some fascination, the routine of the detestable mill … what scrawny little slaves there were! Their skin was everywhere embroidered with purple welts from their many beatings. Their backs, scared from floggings, were shaded … their eyes were so inflamed by the thick dark smoke and the steamy vapour that they could barely see.

While we can imagine the smell of warm bread and cake loaves emerging from the brick lined ovens every day of the week by the dozens, so many other smells would have accosted the nose in a bakery at the same time: sweaty donkeys, animal dung on the floor, fresh ground grains, and smouldering kindling scrapped out of the domed brick ovens just before the bread loaves were inserted, to name a few.

Fulleries (*fullonicae*) were workshops for washing and stretching wool clothing and for laundering other fabrics as well. Like bakeries and gristmills, these establishments could be located anywhere in the city. The ample evidence for them at Pompeii

Figure 6.7 Bakery of Modestus at Pompeii (VII.1.36), general view; eighty-one bread loaves were in the oven when Vesuvius erupted. Photo: A. Koloski-Ostrow.

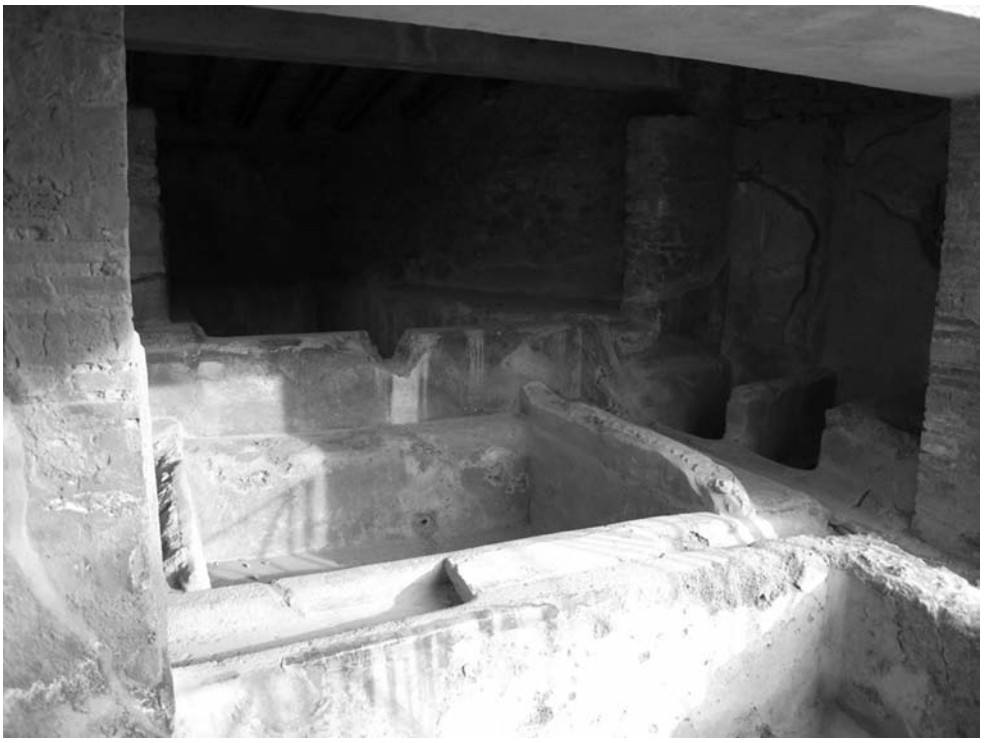

Figure 6.8 Fullery of Stephanus at Pompeii (I.6.7), view of washing vats. Photo: A. Koloski-Ostrow.

(about eleven survive at the site[29]) allows us to read their physical layout quite well. Clothes were soaked in small tubs, surrounded by low walls, filled with water and a mixture of alkaline chemicals, sometimes including urine. The fullers trampled the cloth with their feet (Figure 6.8), then scrubbed it and squeezed out the liquid. Larger basins were then used as rinsing tubs to remove the dirt that had resolved in the first process and that needed to be washed out. The air inside these laundries would have been acrid, probably stinging to the eyes, and the sickly smell of aged urine – even though old urine does lose some of its intense smell over time – would have dominated these shops. In the final fulling process, we now know that clothes were sometimes also treated with sulphur, another powerfully stimulating smell. Fulleries were not the same size, layout or location in every city. While the evidence for fulleries in Pompeii suggests small- to medium-sized workshops predominantly functioning in domestic contexts, Ostia shows a sharp dichotomy between small workshops in independent *tabernae* on the one hand and large industrial factories on the other. So far at Ostia we can identify only three large *fullonicae* and two complete bakeries, none of which had interconnections with urban living spaces, although all were located very near them. Scholars are still arguing about whether Martial's comment on cracked terracotta jars placed in the streets were

29 See Bradley (2002); Flohr (2003); Wilson (2003); Flohr (2006); the most recent treatment is Flohr (2013). Further, see Bradley, this volume pp. 140–41.

for the collection of urine by fullers for the fulling process, or whether such urine would not be pure enough for this use.[30] To my mind, these references testify to the rampant smell of urine, if not any formal collection system.

Manufacturing leather goods, which of necessity required the disposal of animal carcasses and guts on a regular basis somewhere outside these shops, must have been one of the more malodorous operations in a city. We can find a law in Ulpian's *Digest* that prohibits tossing dead animal parts, presumably after the procurement of the skins, into the streets.[31] The law, of course, suggests that the practices of tanners needed policing. While tanning was one of the businesses most offensive to the nose, it was also one of the most common, as everyone of every class would have needed sandals, boots, tunics, satchels, money bags, belts and the like. The archaeological evidence for tanneries is rather thin, but tanneries in the first century CE do not seem to have been relegated to any particular area of the Roman city, and profit once again may have determined their placement. If a tanner wanted the elite to buy his product, after all, why not set up shop near residences of elites?

I have tried to focus on archaeological evidence on-the-ground as much as possible to uncover ancient smells, but for the city of Pompeii we do have some inscriptional evidence that we cannot ignore, because it fills in a bigger picture of other shops not represented in the archaeological record. From Pompeian political *programmata* (painted announcements urging citizens to vote for different candidates for various offices) we can collect a rich array of other occupations,[32] many of which dealt in activities or materials drenched in smells: *aliarii* (garlic-sellers), *aurifices* (goldsmiths), *cisiarii* (cart drivers), *clibanarii* (makers of mail or cuirassiers?), *coactiliarii* or *quactiliari* (felt-makers), *culinarii* (cooks), *gallinarii* (poultry handlers), *infectores* (dyers), *librarii* (book makers and sellers), *lignarii* (woodworkers), *muliones* (mule-drivers), *nates* or *nautae* (shippers), *offectores* (wool dyers), *piscicapi* (fishermen), *plostarii* (wagon-makers), *pomarii* (fruit sellers), *saccarii* (porters), *sagarii* (cloth-dealers), *scabillarii* (percussion musicians or pantomimes), *sutores* (shoemakers or cobblers), *tegestarii* (mat-makers), *tonsores* (barbers), *unguentarii* (perfume makers/dealers[33]) and *vindemitores* (gatherers of grapes). Wine and oil manufacture, in fact, even on a small scale inside or just outside the city (cf. Villa of the Mysteries and Villa Regina, Figure 6.6) would have produced distinctively rich odours from ripe grapes, fermenting or rotting grape pulp, and powerful exhalations from the first squeezes of the olive presses. Nothing stinks more than old, rotting olive oil,[34] and all of these smells would have been impossible to escape during production periods, even if one retreated to nearby orchards or farm fields.

30 Martial 6.93.1. See also a reference to the possible practice of collecting urine from the streets in Macrobius, *Saturnalia* 3.16.15. Suetonius, *Vespasian* 23.3 includes a reference to a tax on urine, instituted by Vespasian, suggesting the value of this smelly commodity within urban life. Meiggs (1960: 143) also mentions terracotta jars in the streets for the collection of urine.

31 Ulpian, *Digest* (Papinian) 43.10.1.5.

32 For the most up-to-date lists of occupations at Pompeii, see Mennella and Apicella (2000). See also Cooley and Cooley (2004: 116–17, 174).

33 See now Giordano and Casale (2007: 17–50).

34 From conversations I have had with archaeologists at the Royal Netherlands Institute in Rome who are working at Monte Testaccio, the smells of rotting oil and oil by-products have saturated the mountain and can still be sensed even in modern excavations. Cf. Remesal Rodriguez (1998).

By the most recent count, at least 158 establishments at Pompeii have clear evidence for a retail service counter, many of which were for food and drink.[35] Another very popular Roman foodstuff well documented for its manufacture at Pompeii, namely *garum* (the tart Roman fish sauce made of fermented, mashed fish), was a product that probably served to mask meats and fish served for dinner that had gone slightly "off". In addition, *garum* was served on bread for midday snacks.

By mixing the houses of the rich with those of the poor everywhere in the city and placing dirty and smelly commercial enterprises alongside various types of residential architecture, magistrates were slowly establishing long-lasting urban securities whether they were aware of it or not, and they were increasing profits for all the shopkeepers. Such juxtaposition created a kind of urban social stability that provided a far greater advantage to urban life, despite the sometimes hideous smells that had to be endured, than ever could have come from the practice of isolating and segregating the disadvantaged into densely concentrated zones where unrest could fester. So smell, perhaps, actually unified the city in certain socially significant ways.

Public architecture and smell: amenities, *fora* and markets, and temples

Even the more or less public amenities of a city such as baths, sometimes cared for by public slaves, would have reeked with odours and scents possessing properties that clung to all entering the premises. The gleaming Roman baths that tourists visit today tend to give us the impression of cleanliness and purity and make us admire the Romans for their imagined passion for the same. When we look more closely at the archaeological evidence and combine it with focused medical texts from the first century CE, however, another picture emerges. A person sitting in the bathtub of a hot room (*caldarium*) of a small city bath at Pompeii (Figure 6.9) – these tubs could hold between eight and twelve bathers at one time – very likely would be sitting next to someone suffering from open wounds, lesions, lice, gangrene, worms, diarrhea, gonorrhea, tuberculosis or worse.[36] The smell of the bath water in the tub would be more than pungent by the end of a hot summer afternoon on the Bay of Naples. From inside public baths and toilets that represent cleanliness and hygiene to us moderns, the strong smells of human excrement and urine never abated and the diseases they spread were lurking everywhere.

By the end of the first century CE the entertainment possibilities in Roman amphitheatres had reached an apex of complexity and potential shock effect because of clever new technologies. Rope and pulley apparatuses were in place to hoist up as many as eighty, or even 100 animals (leopards, lions, tigers, panthers, to name some of the more popular) in cages to the surface of the arena simultaneously for a spectacle blood bath. In the oldest amphitheatres, the sand on the main floor of the arena (derived from *harena*, the word for sand) mopped up the blood and guts from these vicious displays. By the time the Colosseum was in operation in 80 CE, drains from the surface of the arena directed the remains of body parts and the rivers of blood down into underground channels for disposal there. The smells from days of games in an amphitheatres must

35 Ellis (2004: 374–75).
36 Celsus, *De Medicina* 1.3–6.

Figure 6.9 Stabian Baths at Pompeii (VII.1.8.15–17.50–51), female section, *caldarium* tub. Photo: A. Koloski-Ostrow.

have been ghastly – a combination of blood, guts, dead men and animals, and millions of flies to gorge on all the flesh and bloody tissue. In the 100 days of spectacles that accompanied the opening of the Colosseum, we are told that 9,000 animals were killed.[37] Granted that this did not happen every day, but 100 days out of 365 is a significant number, and the smell of dead flesh and blood must have emanated to many nearby neighbourhoods.

While the plays, slapstick skits and readings held in theatres did not have occasion to raise the stink of the amphitheatres, the sale of cheap foodstuffs and the sweat of performances held in the heat of the morning generated powerful smells. The oldest types of stage show were apparently quite vulgar, displaying nudity, violence, sex and the real or imagined smells from loud burbs and louder bursts of flatulence.

Furthermore, shopping for meat or vegetables in an open Roman market would have had its attractions for the nose, but not every aspect of the market would have supplied pleasant smells. Crowded Roman food markets, usually located just adjacent to city's forum, certainly provided a wide array of lovely smells from crisp, bright-coloured root vegetables, bunches of green herbs, dried and fresh fruits, and spices. The shellfish, pungent piles of fish and blood-red slabs of meat – often sold in a circular stand in the

37 Shelton (1998: 351).

middle of the market – had no refrigeration for hours at a time, save for some occasional ice or snow from the mountains in the winter months. This fish and meat must have often been fly-infested in warmer weather and would have quickly turned rancid, even before the food could reach the Roman kitchens in which it would be prepared for dinner. As I noted, the heavy and savoury fish sauces, like *garum*, probably covered up a multitude of stomach-churning problems posed by deteriorating foods.

Our modern idea of religion providing peace and contemplation must be shattered in the realm of Roman temples and shrines, as smell must have provided a major distraction there (for one interpretation of Greek ritual smells, see Clements, this volume). Rituals were held outside in the heat of the day and were, like gladiatorial or animal games in the amphitheatre, drenched in blood sacrifice and the strong smells of death. Every festival day – dozens during the annual cycle of the Roman calendar – required a blood sacrifice of at least one, and sometimes hundreds, of bulls or other animals killed before a standing-room-only crowd. The smoke and smell of fat burning on open altars must have filled the forum and nearby streets with regularity (Figure 6.10). In the crowded public venues of *fora* with their temples and public food markets, the ever-present and succulent odours of burning sacrifice for religious piety mixed with the sweet fruits of the Roman countryside, while these smells in turn mixed with the stench of death from nearby butcher shops or the parade of dead animals from the amphitheatre.

Figure 6.10 Main altar in front of the Temple of Jupiter in the forum at Pompeii (VII.8.1). Photo: A. Koloski-Ostrow.

Death, burial and smell

While we still have many questions about death and burial rituals in ancient Rome that we cannot answer definitively – how many people died in Rome every day or every year or how many burials were organized privately or depended upon the services of the state – if we adopt a conservative estimate for the urban population of Rome around the time of Augustus (namely 750,000 inhabitants) and postulate an annual mortality rate of roughly 40 per thousand, this would mean that some 30,000 residents died each year, more than eighty people per day on average.[38] In times of plague, these numbers would have risen dramatically. Bodel estimates that between 100 BCE and 200 CE, the cemeteries of Rome had to accommodate nearly nine million burials of one sort or another, whether cremations or inhumations. The impact of smell from this funerary activity would have been oppressive.

While burial customs changed in different Roman cities over time from the first century BCE to the end of the first century CE (from cremation to inhumation burials) and funerary practices were also mixed, for over two hundred years until ca. 100 CE, the Romans primarily preferred to cremate their dead. The elite burned their dead at their own tombs (at private *ustrinae*, crematoria) and the dispossessed were cremated at large public *ustrinae*, after which their ashes and bones were buried in pits. While the smell of burning beef, pork or even chicken on the altars of the temples filled the air in the *forum* on festival days, the smell of burning flesh and corpses by the hundreds and thousands, especially during plague periods, would have has a serious effect on air quality just outside the main gates of most cities every day of the year.[39]

If we look at elite funerary art, such as the marble relief sculpture from the so-called Tomb of the Haterii,[40] we can learn quite a bit about death rituals. The deceased on this relief seems to be laid out in the atrium of her house, flat on her back on two mattresses superimposed on a couch with carved ends and elaborately turned legs. Her feet faced the atrium door. The deceased herself is wrapped in fine fabric and sporting rings on her left hand. Presumably her will is piled at her feet. Four flaming torches are visible and a *candelabrum*. Above the couch and the recumbent corpse are two tall vases with sagging garlands of fruit and flowers tied to them. Amid other particulars, two hired female mourners with dishevelled hair and hands raised ready to beat their breasts stand on the left.

We are told that preparation of the body for its lying-in-state could take up to seven days,[41] and the arrangements for the actual funeral that followed were generally entrusted to professional undertakers (*libitinarii*), but bodies would have been in a considerable state of decay by the time they were removed for final rites. When one of my students died in the fall of 2012, I had the experience of attending his Hindu funeral in Newton, Massachusetts. The body, which was soon to be cremated in a crematorium, had not been preserved with formaldehyde, but was covered with rose petals as it lay in state on a simple slab of pinewood during a memorial ceremony of about two hours. Incense was burning throughout the chapel (smelling of gum and spice), a mixture of honey, perfume oils and water was poured onto the corpse, but nothing could mask the

38 This population analysis and numbers of the dead every year come from Bodel (2000: 128–29).

39 Cf. Morley, this volume, p. 114 on the smells of burning flesh and corpses. Cf. Wagenvoort (1948: 133), who argues that the Latin word *funus* originally meant "stench, cadaverous smell".

40 Toynbee (1971: fig. 9).

41 Toynbee (1971: 45), where she cites Servius on Vergil, *Aeneid* 6.218: *servabantur cadaver septem diebus*.

smell of death. Such smell would have permeated the air near burial grounds in ancient Rome as well. Perfumes and incense[42] were in high demand at these elite funerals for good reason. Polybius (6.53) vividly described the obsequies of Roman patricians in the middle of the second century BCE.

People of lower status were likely burnt or buried on the day following their deaths. They were carried off in cheap biers by *vespilliones* (underlings to the undertakers[43]) either to the public *ustrinae* for cremation or to open pits[44] where they were unceremoniously dumped. Such open pits would have posed a significant health hazard, since various stray animals in the city would have visited them and dragged off bones and body parts.[45]

The main evidence for these open burial grounds comes from the Esquiline Hill in Rome. Construction of a new residential area in the nineteenth century laid bare some seventy-five ancient mass burial pits.[46] They were immediately associated with the public potter's field mentioned by Horace,[47] and they provide many similarities to mass graves employed for the burial of the poor in France and England from the sixteenth to the eighteenth century.[48] For whatever reason, the practice of dumping bodies there was eventually abandoned, presumably late in the first century BCE, probably because of noxious smells, superstitious taboos or both. City officials would slowly have come to realize, at least on a superficial level, the health risks of keeping the pits open.

Dumps in ancient Rome developed with different purposes – for household garbage, faecal waste, abandoned bodies and for commercial rubbish. While the disordered quagmires[49] of dead flesh and rotting carcasses known to us from such places as Montfaucon in eighteenth-century Paris[50] existed in Roman cities as well, ancient dumps could also be quite organized. Monte Testaccio in Rome, the so-called amphora mountain, consists almost entirely of olive-oil *amphorae* from Baetica, Spain, none earlier than 144 CE.[51] The construction of the hill was not haphazard, but planned, with level terraces and retaining walls (also built of amphora shards). It seems the discarded amphora were carried up the hill whole and then smashed on the spot. After that, everything was liberally sprinkled with powdered lime, clearly to attempt to neutralize the stench of the rancid oil.

Ulpian's *Digest* warns about contaminating public water supplies or covering anyone with dung or mud,[52] which again suggests that these indiscretions occurred often enough for officials to take notice. At Herculaneum in VI.11–13, the House of the Black Saloon, on a half column of the peristyle, one inscription records the payment of eleven asses for the removal of ordure,[53] and another painted notice on the side of the water-tower at the northern end of Cardo IV, just as it enters the Decumanus Maximus, bans the dumping

42 Further, see Clements, this volume.
43 Toynbee (1971: 45) on *vespilliones*.
44 Bodel (2000: 131–33). Hope (2009: 65–96).
45 Suetonius, *Vespasian* 5. 5. See also Scobie (1986: 418–19).
46 Lanciani (1888: 64–65).
47 Horace, *Satires* 1.8.8–16.
48 Bodel (2000: 130). Montfaucon was made the centrepiece in Chevalier (1973).
49 Bodel (2000: 128–51).
50 Reid (1991: 11).
51 Claridge (2010: 402–3).
52 Ulpian (Papinian) 43.11.1.1.
53 Scobie (1986: 414, n. 117): *exemta ste(r)cora a(ssibus) XI*.

of rubbish in the vicinity of the water-tower.[54] Very likely, people living in houses or tenement buildings dumped debris wherever they could find a space on a side street or alley or abandoned lot, and, unfortunately, there was no systematic removal of it, and no easy way to police the practice.

Conclusions

The same psyche that ultimately called for the ordering and removal of filth by the sewers seems to have inspired the development of massive urban cemeteries and dumps over time. The separation of the living from the dead was an important feature in cities of the Roman world. That is not to say that all dead Romans immediately found their way into well-ordered cemeteries.[55] Nevertheless, most cemeteries in first-century BCE and CE Rome were outside the city walls. Sewers and cemeteries of eighteenth-century Paris were closely linked in the job of disposing of urban refuse such as garbage, excrement and corpses, and a similar relationship between sewers and cemeteries existed in Roman cities of the first and second centuries CE.

We have explored some of the more powerful smells of the Roman city through textual and archaeological evidence in order to discover what odours existed and how knowing about them clarifies our understanding of Roman streets, public spaces and private dwellings, and shows how they shaped and ultimately changed urban society. Major urban disasters, citywide fires and floods and the resulting smells would also have shaped the urban landscape in various cities. These examples are far from exhaustive, but should be sufficient to underscore, at least theoretically, the ubiquitousness and valency of smell in the Roman city.

The evidence for the smells in the Roman city helps us revivify urban spaces in all of their complexity. As we have tried to show, Roman urban officials did not zone their cities by residential and commercial uses, but how the areas of a city smelled ultimately zoned them in and out of popular favour and labelled them as salubrious or deadly. Ultimately, smells would provide ideas for future urban planners about better infrastructure and urban design in later periods. In the Roman city, smells did play a role in shaping urban space, but it is telling that they did not dictate the tenacious institutions and structures of Roman urban society for a very long time. The following chapter will explore some of the reasons for this apparent urban anosmia.

54 Cf. Wallace-Hadrill (2011: 291). Marcus Rufellius Robia and Aulus Tetteius were the magistrates who had the ban painted into the announcement.

55 Bodel (2000: 128–51).

7

URBAN SMELLS AND ROMAN NOSES

Neville Morley

> At the time of which we speak, the cities were dominated by a stench that we moderns can scarcely imagine. The streets stank of dung, the back yards stank of urine, the stairwells stank of rotten wood and rat droppings, the kitchens of rotten cabbage and mutton fat; the unventilated rooms stank of must and dust, the bedrooms of greasy sheets, damp feather beds and the penetrating sweet smell of chamberpots. From the chimneys came the stench of sulphur, from the tanneries the stench of pungent liquids, from the slaughterhouses the stench of spilt blood. The people stank of sweat and unwashed clothes; from their mouths came the stench of rotten teeth, from their stomachs the stench of onion juice, and from their bodies, if they were no longer young, the stench of old cheese and sour milk and tumours. The rivers stank, the squares stank, the churches stank; it stank under the bridges and in the palaces. The farmer and the priest stank, the journeyman and the master's wife; the whole nobility stank, even the king stank, he stank like a predator, and the queen like an old goat, summer and winter. For in the eighteenth century there was no control on the way that bacteria caused everything to decompose, and so there was no human activity, neither creative nor destructive, no expression of growing or decaying life, that would not have been accompanied by stench.
>
> (Patrick Süskind, *Das Parfum*[1])

It is conventional to begin any discussion of smell in history with a lament about the neglect of this theme in modern scholarship. "Today's history comes deodorized", Roy Porter argued in his foreword to the English translation of Alain Corbin's *Le miasme et la jonquille*, because researchers were repelled by their own (modern, and hence over-developed) hygienic sensibilities even from contemplating past stenches.[2] Others have blamed a modern tendency, even among scientists, to devalue smell compared with sight and hearing; whether because it is harder to study (not least because it has proved difficult to establish an objective measure of the intensity of an aroma, but also because responses to smell are clearly in part cultural and psychological rather than solely physiological) or because of a widespread perception that it *is* less important and has been since early humans switched to bipedalism, or because of an association of smell (and smells) with the primitive and childish.[3] In the case of classical antiquity, we

1 Süskind (1984: 5–6), author's own translation.

2 Corbin (1986: v).

3 As argued by, for example, Classen, Howes and Synnott (1994: 1–11); generally, Engen (1982), Engen (1991) and Jenner (2011). See also Introduction pp. 2, 6.

might also note the well-established tradition of conceiving of the Greco–Roman world in terms of light, space, cleanliness and flowing water; ancient, especially Roman, cities are celebrated as model urban environments organized on rational lines and provided with exemplary public facilities.[4] This antiquity, constructed by historians on the basis of the literary writings, architectural remains and art works of the wealthy elite, was indeed largely odourless; if the scenes depicted by the likes of Laurence Alma-Tadema smelt of anything, it was fresh air, well-laundered clothes, the scent of flowers and perhaps a touch of incense.

In recent decades, as the heirs of the *Annales* school and their interest in social, economic and mental structures have combined with the New Historicists and their wish to reconstruct and represent past experience, there has been a small but perceptible increase in scholarly attention to the history of smell, especially bad smells with their connection to health and ideas of pollution, and especially bad smells in the pre-modern city.[5] As the last chapter has demonstrated, there is a new sense that the past *must* have been smellier than the world with which we are familiar. This implies that we cannot hope to appreciate the nature of past experience if we concentrate only on the visual and literary, and still more if we consider only the refined and hygienic aspects of past societies – the concern that an interest in such vulgar things may itself carry a certain whiff of vulgarity is firmly rejected. This trend can be seen in ancient history as well; not only in the limited number of studies specifically on this topic, but in the attention paid to the histories of the body and of health, both topics with olfactory overtones, and more general and popular attempts at bringing the past to life.[6] Thus Keith Hopkins, in *A World Full of Gods*, ensures that the imaginary time travellers he has sent back to Pompeii are regularly assailed with strong and disconcerting smells like rotting fish and especially urine, and imagine to themselves what other unfamiliar aspects of the ancient world might smell like (for example, the cremation of a corpse in the open air is imagined to smell like roast pork).[7] One might argue that a modern visitor to Pompeii or Rome would surely have been wholly overwhelmed by the sensory (and especially olfactory) experience, rather than occasionally inconvenienced or disturbed, but that would hardly serve the historian's purpose. What is significant for this discussion is that smell is very definitely part of the past that the historian seeks to bring to life – and, conversely, an emphasis on strange smells and the implicit contrast with modern hygiene is (as we have seen in the last chapter) one of the tools at the historian's disposal for presenting the past as different and distant from the present.

This does create the risk that the resulting picture of the past ends up just as distorted as the sanitized version, characterized by an excess of odour and ordure rather than by their absence. Jenner's account of the limitations of the contemporary historiography of smell, which is still largely confined to popularizing presentations and museum

4 Morley (2005: 192–93).

5 In addition to works mentioned in nn. 2 and 3, see, for example, Cohen and Johnson (2005); Cockayne (2007); Cowan and Steward (2007).

6 Work on smells and smell-related topics include Parker (1983); Scobie (1986); Porter (1999); Hope and Marshall (2000); King (2005); Bradley (2012). See also Bradley (forthcoming) for a more "synaesthetic" approach to the ancient urban environment.

7 Hopkins (1999: 10) (funeral pyre); 11 (garbage and animal carcasses in street, smells and flies everywhere); 13 (fish at market); and 19 (urine in street).

reconstructions like the Jorvik centre and its "scratch 'n' sniff" cards, should be a warning to ancient historians working in this area.[8] The conviction that the modern west has been deodorized (an idea which appears to be largely mythical) leads to the conviction that a smelly past must be an authentic one, and vice versa. Replacing one set of clichés, that present the past as familiar and sympathetic, with another set that present it as alien and alienating, represents at best only a marginal development in historical understanding.

After all, it is not the case that until recent decades portrayals of the Roman city have only ever been scrubbed and deodorized; there is an equally strong tradition of portraying all cities, especially Rome, in terms of the worst excesses of modern urbanism: pollution, poverty, squalor, filth and stench.[9] The techniques of such accounts are familiar. A different selection of the limited literary and archaeological evidence is employed – the satires of Juvenal and Horace rather than the works of Vitruvius or Frontinus, the architecture of everyday life rather than the temples and palaces – to convey to the reader a world that is remarkably close to Süskind's fictional account of eighteenth-century Paris.[10] Rodolfo Lanciani's anecdote about the stench released when his excavators uncovered a mass grave on the Esquiline, so that they had to be given time to recover, is repeated time and again, with the implicit or explicit conclusion that the smell must have been far worse two thousand years earlier.[11] Jérome Carcopino offers an extensive impressionistic account of the different sources of smells in the city, from fullers and tanners to slaughterhouses and graveyards – which is virtually the sole source for the reconstruction offered by Classen, Howes and Synnott of the olfactory world of ancient Rome. As Ray Laurence has noted, such accounts are wholly descriptive rather than analytical, and largely fictional, interpreting the limited amount of evidence (itself largely fictional, or at least poetic) in terms of a template derived directly from nineteenth-century conceptions of the urban slum. There is a clear tendency to emphasize those elements that precisely contrast with the idealizing view of antiquity – the grime to set against the gleaming marble, the vulgar hubbub and racket of the street scene against the calm of the aristocratic interior, and the smells of cooking, rubbish and decomposing corpses against the scent of rose petals.

For polemical purposes, especially in asserting the importance of the history of the masses rather than just that of the elite, such accounts have their uses, but they do also limit our understanding. What we really need is an olfactory history of the Roman city that is comparable to the sophisticated studies of Roman visual culture that have appeared in recent years – not just the power of images and buildings produced for deliberate effect, but the overall visual experience of urban inhabitants and visitors.[12] This must be part of a wider study of how Romans received and interpreted sensory information and made use of it in navigating their immediate environment, identifying threats and opportunities, locating themselves within different orders of space and

8 Jenner (2011: 335–37), and cf. Bradley's Introduction, this volume.

9 See Bradley (2012: Part II: "Modernity"), especially chapters by Assonitis, Syrjämaa and Janes.

10 Laurence (1997).

11 Lanciani (1888: 64–67).

12 See, for example, Zanker (1997); Beard (2003); Favro (2006). Although it expressly focuses on textual approaches, Edwards (1996) also engages with the way Romans experienced and interpreted their physical environment.

society; in brief, understanding how the sense of smell worked in different ways as a more or less essential part of everyday human life, rather than treating it just as a marker of different or familiarity.

Smells in the Roman urban environment

One basic issue for such a study is that, like the other senses, smell always works through a combination of the physiological and the psychological or cultural: on the one hand, what molecules are present in the atmosphere at a given location and how far an individual can detect them; on the other, how a particular odour or combination of odours is interpreted, consciously or unconsciously, and what reaction it produces. Different traditions of smell studies have tended, inevitably, to favour either materialist or culturalist approaches, each one locating the nature/culture divide differently; in general, the physical and physiological are treated as more or less ahistorical and timeless, the cultural and psychological as context-dependent.[13] In simplistic terms, we should be able to identify the likely source of smells with relative ease, as they will produce odours in any circumstances (especially in centuries before the development of masking agents and deodorants); how those smells will be understood and evaluated, however, varies from culture to culture.[14]

The study of the visual aspects of the Roman sensorium is relatively well advanced, not only because there is a much longer tradition of taking the visual seriously as the subject of historical research, but also because we have a reasonably substantial corpus of evidence for both parts of the subject: not only the archaeological remains of buildings, enabling the reconstruction of the topography and appearance of different cities, but also the accounts (inevitably mainly from the literate elite) of how different individuals viewed buildings and cityscapes, and representations of those buildings and cities in other media. Apart from a few exceptional cases like Lanciani's burial pits or rancid olive oil on Monte Testaccio (see the last chapter), smells do not themselves survive the passage of millennia well; the reconstruction of the physical sources of smells is therefore a matter of extrapolation, based on modern knowledge of odour-producing substances, from the physical remains of certain kinds of buildings and the traces of the activities that took place within them, and from literary descriptions of cities, their buildings and their different districts.[15] Further, ancient literary sources have relatively little to say about smells compared with their treatment of visual images (which may itself be significant, but clearly represents a problem for this kind of study), and there are no surviving representations of smells in other media. Certainly we do not have the rich source-material used by Corbin and other historians of the early modern and modern periods, the diaries, letters and pamphlets written by people for whom the smell of the city was clearly a theme of great significance.

As discussed in the previous chapter, the typical Roman city incorporated a number of activities and businesses that could be extremely odorous: laundries which used urine to clean and bleach clothes (perhaps not detectable from any great distance, but the smell

13 Jenner (2011: 342–43, 348).

14 On the material evidence for the sources of smells in the Roman city, see Koloski-Ostrow, this volume.

15 Bartosiewicz (2003).

of the pots of stale urine, and still more the stench if one broke, is taken by Martial as one of the archetypal bad smells in 6.93); tanneries which used equally noxious liquids to remove the flesh and hairs from the animal skins; slaughterhouses and the meat and fish markets.[16] There is some evidence, at least in the case of Rome, for a limited amount of zoning, so that the more antisocial industries (the main exception were the food markets) were pushed towards the margins of the city; likewise, the dead were cremated and buried outside the city, whereas the smell from cemeteries was one of the most notorious sources of nausea in eighteenth- and nineteenth-century Paris (of course, the Roman custom of cremating their dead rather than burying them would also have reduced the persistence of odour).[17] This certainly creates the impression that some areas would have been more odorous than others, and that one might indeed to some extent be able to navigate through the city according to different smells, following the scent of incense and sacrificial meats to the monumental centre rather than the stench of industrial chemicals to the outskirts.

It is also possible that different classes of residential district were olfactorily marked.[18] Certainly it was the perception of at least one elite writer, Martial, that poor households smelt much worse than rich households: in 12.32 he lists the various smells to be encountered in the former, from the cracked chamber-pot to the jar of stinking fish, the whole ensemble smelling worse than a marine pond (an interesting choice of comparator). The wealthy could afford to mask their bodily odours with various perfumes, they avoided soiling their clothes and they attended the baths regularly, whereas the poor were either excluded from the latter altogether or at any rate were limited to the less salubrious public bathhouses, and were *a fortiori* less likely to change their clothes or use perfume.[19] However, it is next to impossible to disentangle the genuine evidence from the class prejudice in such accounts, and certainly impossible to determine whether such differences led to genuine and perceptible differences between districts – not least because the majority of residential *insulae* in Roman cities were inhabited by a mix of social classes, from the large apartments at the bottom to the garrets at the top.[20] Further, there was at least one powerful odour that was produced by all classes of dwelling, and that in any case would have been diffused throughout the city, potentially masking lesser smells: wood smoke, from the primary source of heating and cooking fuel.

Discussion of smells in the city, whether ancient or early modern, almost invariably focus on a different sort of pollution: human waste, the archetypal source of filth.[21] All inhabitants of Roman cities produced substantial quantities of faeces and urine, day in and day out, as well as other rubbish (above all, food waste). This is recognized as one of the most significant problems for the management of any modern urban centre; discussions of sanitation in pre-modern cities, as in modern Third World cities, make it clear that failure to deal with this problem adequately has serious implications for the health and well-being of the urban population – and, given the universal response of

16 Generally Bartosiewicz (2003) and Davies (2012); Bradley (2002) on *fullonicae*, and this volume pp. 140–42.
17 Patterson (2000) on zoning; Lindsay (2000) and Bodel (2000) on the disposal of the dead.
18 Suggested by, for example, Potter (1999).
19 On the poor in Rome and their relative exclusion, Morley (2006).
20 Packer (1971).
21 Generally, Cohen and Johnson (2005) and Jansen, Koloski-Ostrow and Moormann (2012); see also Davies (2012).

disgust to the smell of privies and human excrement, at least in the modern West, implications for the olfactory environment as well.[22] When it comes to the sanitation systems of Roman cities, once again we find two clear traditions of interpretation, echoing Hermansen's characterization of different approaches to urban housing: "von Gerkan sees Rome as a serene group of upper-middle-class residences, very remote from medieval conditions, while Calza and Lugli believe in a slummy metropolis".[23] The first tradition emphasizes the extensive infrastructure constructed by the Romans in every city, not just in the capital, for the purposes of sanitation, and above all the vast quantities of water brought in by aqueducts to flow through the fountains, along the sides of the streets and down into the drains. In Frontinus' account of the water system, pride of place is given to the aqueducts that improve the *salubritas* and *securitas* of the city and remove the causes of *gravius caelum*, foul air; far more impressive monuments than the pyramids or the temples of the Greeks (*De aquis* preface 1, 88). In other accounts, it is the famous Cloaca Maxima, the great sewer that ran from the Forum to the Tiber, constructed in monumental stone and large enough for sightseers to travel along it in boats.[24] Other cities had less spectacular infrastructure than the capital, but still displayed Roman expertise in channelling water into and out of the centre, and their willingness to expend substantial resources on this. Certainly these systems were extremely impressive compared with the typical medieval or early modern city, where the "sanitation system" normally consisted of no more than the expectation that liquids would drain or leach away, while refuse collectors would collect the solid waste and carry it out into the countryside to be spread on the fields as fertilizer; these methods were certainly known in classical antiquity – human waste was indeed a well-regarded source of nutrients for the land – but they were only one part of the typical Roman system, rather than the sole means for dealing with human waste and its accompanying smell.

In this tradition, emphasis on the relative sophistication of Roman urban sanitation tends to bring with it an assumption about its efficacy; waste was flushed away, so the city must have been more healthy and also much less smelly. On the other hand, there is the alternative historical tradition that largely owes its existence to Alex Scobie's classic article on "Slums and sanitation", which emphasizes the limitations of the Roman sanitary infrastructure compared with modern expectations. Firstly, Roman sewers were designed primarily for drainage, to remove water from low-lying areas like the forum, in an environment that was prone to cloudbursts and serious flooding in autumn and winter.[25] Certainly the constant flow of water from the fountains into the gutters would have helped wash away liquid waste and small pieces of rubbish into the drains, but it is as yet unproven whether the flow was powerful enough to remove substantial quantities of human faeces effectively, let alone things like the bodies of dead animals. It is instructive to compare the situation in Paris, where the sewers were similarly intended primarily for drainage. Even after extensive sanitation reforms in the later nineteenth century, local ordinances insisted that the sewers should be used for the removal of liquids only, for fear that they would clog up; the city's inhabitants continued to rely on

22 On the universal Western dislike of privy smells, Engen (1982: 135–36).
23 Hermansen (1978: 167).
24 Gowers (1995) on different views of the Cloaca Maxima, and Koloski-Ostrow, this volume.
25 Noted by Hopkins (2012).

cesspits and chamber-pots, to be emptied by the same dung collectors as before.[26] It is clear from the archaeological evidence from the Roman period that scarcely any residence was connected directly to the sewers, whether because of the cost, or the fear that the system would back up if the Tiber flooded, or perhaps because of a similar belief that the sewers were for drainage rather than waste disposal.[27] The inhabitants of Roman cities relied on cesspits – often situated next to the kitchen, for ease of rubbish disposal – and chamber-pots; some of their waste presumably found its way into the sewer system (one of the hazards of Roman urban life recounted in Juvenal's third satire is being hit by the contents of a chamber-pot, emptied from an upper-storey window: 3.268ff) but the basic principle of the cesspit is that its contents accumulated over a period of time and were carted off at intervals by professional dung collectors, rather than being constantly flushed away by the sewage system before they can emit too many odours.

The net result was that human waste remained within or close to human habitations for much longer periods, often adjacent to the living quarters; this significantly increased the likelihood of infections from various pathogens, contributing to the well-established phenomenon of the city having a higher death rate than the countryside, and must also have produced unpleasant smells from the slow decomposition of urine and excrement.[28] The reliance on cesspits rather than some kind of flushing system was common to all classes of dwelling; it was not that the poorer quarters were significantly smellier – indeed, the likelihood that the diet of the poor was predominantly based on cereals and vegetables rather than meat implies that their excrement may have been significantly less smelly – but rather the whole city would have been pervaded with the smell of human waste.[29] Poor sanitation increased the incidence of gastric infections and diarrhoea, which then both increased the likelihood of further contamination and added to the mess and the smell. The unhealthiness of the city could not always be detected by the nose, contrary to ancient beliefs in foul air as the direct causes of sickness – most illnesses produce only the most subtle changes in the smell of the person's breath or skin, and even ketoacidosis (e.g. from diabetes mellitus) or rotting teeth are detectable only at close quarters – but the inadequacies of the sanitation system in disposing of noxious, polluting substances was certainly detectable, forming a constant background to the other smells of everyday life.

The Roman olfactory experience

Considering the physical evidence for the various sources of unpleasant, polluting smells in the city, there seems little reason to disagree with the last chapter's thesis, or with David Potter's forthright declaration: "There can be no question but that the urban air of the Roman empire stank".[30] The strange thing is that the Romans themselves apparently failed to notice this, or at any rate to comment on it. Individual sources of bad smells in the city were certainly identified as such, such as the *fullonica*, while Roman

26 Barnes (2005).
27 Scobie (1986).
28 Koloski-Ostrow, this volume.
29 On the diet of the poor, Garnsey (1999) and Morley (2006).
30 Potter (1999: 169).

legal writings on the importance of keeping the public drains clear of rubbish note the threat of a pestilential atmosphere if they become clogged with filth (*Digest* 43.23.1.2). However, there is nothing to compare with the numerous eighteenth- and nineteenth-century examples, documented by Corbin and others, of complaints about the stench of the city as a whole. It does not even feature explicitly as a theme in the most obvious place for such a diatribe, Juvenal's third satire (in spite of the smells conjectured in the reading of Juvenal in the last chapter, pp. 93–94). In the whole of Umbricius' scatter-gun condemnation of every unpleasant and dangerous aspect of urban life, smell is hardly ever explicit; it is arguably implied by his condemnation of those who take on contracts for public toilets (37–38), and by the chamber-pot incident referred to above, but compared with modern examples of the genre Juvenal's satire entirely passes up the chance to characterize the city in terms of its stench, real and/or metaphorical – the closest we get is the use of smell of indicate the foreignness of some of Rome's *nouveaux riches* in another poem. Umbricius moves to Campania on the grounds that it is less dangerous and more hospitable to good old Roman values, not that it smells less bad.

Despite the widespread ancient belief in the dangers of foul smells as the source of disease, the city is not identified in these terms. On the contrary, it appears as somewhere that may be threatened by such odours drifting in from elsewhere, if it is situated in the wrong place, as in Vitruvius' account – "For when the morning breezes blow toward the town at sunrise, if they bring with them mist from marshes and, mingled with the mist, the poisonous breath of creatures of the marshes to be wafted into the bodies of the inhabitants, they will make the site unhealthy" (1.4.1). The idea of the city as itself the source of dangerous vapours, threatening not only its own inhabitants but those in its vicinity – a theme in modern accounts of urban pollution – does not feature. Indeed, far from the Romans identifying the city as a place of stench and pollution, as would appear natural to us, the opposite appears to have been the case: it is country folk rather than city dwellers who are identified in several sources as being smelly (above all, they smell of goats and garlic), and one of the best-known examples of a member of the elite using a nosegay to ward off unpleasant smells occurs when he is travelling through the countryside between cities, not living in one.[31]

Given the physical evidence for inadequate sanitation discussed above, how is this apparent blindness to the appalling stench of the city, even among the wealthy elite who regularly sought refuge in the *suburbium* or down in the Bay of Naples, to be explained?[32] One possibility is that we should make a qualified return to the more positive interpretation of Roman urbanism, in which the constant flow of fresh water through the streets (perhaps combined with the virtues of a predominantly vegetarian diet) kept the smell of human waste to a minimum. The alternative is to focus on the psychological and cultural aspects of the sense of smell, and to emphasize that both "filth consciousness" and sensitivity to particular odours vary over time rather than being

31 The smell of country folk: Martial 12.59; Plautus, *Mostellaria*; discussed by Classen, Howes and Synnott (1994). The nosegay is allegedly employed by Verres: Cicero, *In Verrem* 5.27. This is not to say that individual Roman bodies were not associated with bad smells: see Bradley, this volume.

32 The *suburban* villa was a place of *salubritas* and *amoenitas* compared with the city; this might imply that it was less smelly, but the sources don't state this explicitly in the way that they do emphasize the heat, noise and general busyness of urban life: Champlin (1982/5); Purcell (1987).

universal responses to biological processes.[33] In other words, given the physical conditions to be found in Rome and other Roman cities, if we were able to experience them directly we would be overwhelmed by the stench, but the Romans did not experience this in the same way.

There are two different ways of interpreting such a – to us – lack of sensitivity to external stimuli. The first is implied by Süskind's fictional account of Paris, echoing the assumptions of historians like Corbin: the inhabitants have had their sense of smell destroyed, or at any rate impaired, by living for so long in the midst of such appalling stench. This is known technically as adaptation, and is a well-known physiological phenomenon in which the perceived intensity of a smell reduces over time even if the measured intensity remains the same (this is not the same as the permanent loss of smell experienced by workers operating with certain especially noxious substances such as cadmium).[34] In other words, a writer like Juvenal has simply lived in Rome too long to be able to distinguish anything but the most powerful of smells (a fullery, for example) in his immediate vicinity; he does not detect smells that would be obvious to a visitor from the countryside (or from the deodorized future). If this was the case, we might then speculate on the implications for the Roman sense of taste, something that is closely linked to the sense of smell; is an impaired olfactory sensitivity the reason why Roman recipes, to modern taste-buds, often seem so sweet and over-spiced, and the explanation for the Roman taste for the salty and pungent *garum* (further on aspects of dining and taste, see the next chapter)?

However, this would not explain the apparent sensitivity of upper-class Roman noses to the smells of the countryside – which to the modern nose would also have been smelly, given the use of human excrement as fertilizer, but substantially less so.[35] It seems better to interpret Roman indifference to urban stench not as adaptation but as habituation, analogous to the way that someone can become oblivious to the loud ticking of a clock or the noise of traffic outside their house without having suffered any deterioration in their hearing.[36] It is not that the olfactory organs do not register the odour, but rather that they do not register it as any sort of threat. "Odour preferences are acquired by learning to adapt to the environment";[37] small children, as is well established, do not instinctively find the smell of excrement disgusting, but rather learn or are taught to do so. Corbin notes the indifference of the Parisian masses to the issue of smell that so preoccupied the educated classes in the eighteenth century, and their resistance to many of the measures introduced to improve sanitation; as Jenner argues, it was not that they were less sensitive than their social superiors (though that was the dominant opinion of the latter), but that they had not been taught to perceive the characteristic smell of the city as a threat to their health and well-being, and hence did not react to it in the same way.[38]

33 Hamlin (2005: 5).
34 Engen (1982: 61–63).
35 Excrement spread out in sunlight loses its smell more rapidly: Corbin (1986: 27–34).
36 Engen (1982: 63–77).
37 Engen (1982: 169).
38 Corbin (1986: 57); Jenner (2000). Over the course of the nineteenth century, the threshold of tolerance, as Corbin calls it, does shift among the mass of the population as well – which tends to emphasize the role of culture in shaping response to smells.

In other words, the characteristic smell of a Roman city – a mixture of urine, shit, decay, smoke, incense, cooked meat and boiled cabbage, among other things, in unknown proportions – would be a stench to us, because that is our characteristic response to most of those odours. For the regular inhabitants of ancient cities, it was the smell of home – and perhaps even of civilization, as opposed to the more backward countryside where those smells were less intense, and barbaric regions where many of them might be absent altogether. Within that complex of odours one might well favour some over others, tolerating the smells of the industrial areas or the fish market while gravitating towards the smell of sacrifice. But even the smell of the sewers was not perceived as intrinsically unpleasant, let alone threatening, and so not interpreted as such. Did this unsanitary Rome and her unsanitary daughters across the empire stink, as Potter argues? Not, perhaps, to the majority of their inhabitants.

8

THE SCENT OF ROMAN DINING

David Potter

Excellent cuisine is as much in the nose as in the palate of the diner. The reason is simple: when people chew they force air through their nasal passages, carrying the scent of food with it. Without smell, people would only be able to experience the five tastes the tongue picks up through chemical reaction: sweet, sour, salty, bitter and umami, and that would seriously impair any enjoyment of cuisine. The connection between scent and taste was not lost upon the thinkers of the ancient world, who saw such an intimate connection between the two senses that some were inclined devalue scent on the grounds that it did not have the sort of precision some people thought a sense should have. One commentator went so far as to write "it is also clear from the fact that there is no name given to the odorous in general which exhibits its underlying nature and from the fact that all the more particular names are taken from objects of taste".[1]

The ancient identification of scent with taste makes it reasonable to ask what impact theories of scent had on the actual practice of dining in the Roman world where these sentiments circulated. Furthermore, the centrality of dining to Roman social life means that Roman attitudes towards scent in dining are connected with the broader issues of Roman attitudes towards odours of all sorts. Thus, even if – as the last chapter argued – the average urban Roman might not have reacted to the scents of his or her urban environment in the same way that a modern individual might, a wealthier Roman who had more control over the smells of his environment would certainly do so, which is why, both in dining and (as other chapters in this volume demonstrate) a number of other areas – such as public spectacle, sacrifice and funerals – explicit efforts were made to alter the scent of an area used for elite display.[2]

The habits of the imperial elite matter when it comes to issues of cuisine because tastes in the Roman world, as in other cultures in which sophisticated dining has thrived, tended to be shaped at the upper end of the socio-economic scale. Basic cuisine consisted of simple combinations of comestibles available in the regional ecosystem, while sophisticated dining often involved the importation of distant foodstuffs or the alteration of basic regional materials – e.g. transforming fish into *garum*, or finding new ways to feed oysters – which usually meant that the olfactory effect of the food was decidedly different

1 For "Simplicius" who is quoted here see Huby and Steele (1997: 185).

2 For upper-class interest in avoiding the regime of typical urban scent see Potter (1999 passim), and Harvey (2006: 30–31); for lower-class tolerance of strong smells in an urban environment see Morley, this volume, p. 118.

in a wealthy person's private house from what it would be in a public place, where the less fortunate members of the urban population tended to dine. Refinements in elite food preparation would often accompany efforts to control the overall scented environment in ways that would be impossible in a street-side dining establishment (*popina*).[3]

From earliest to late antiquity it was generally held that activities might have their own particular smell. As early as the fifth century BCE, Sophocles, in his play on the judgement of Paris, had introduced Aphrodite doused in perfume, signifying her connection with pleasure, and Athena drenched in olive oil to signify her interest in wisdom and virtue, qualities which required exercise to obtain, while developing medical theories held that good smells were connected with health, and bad with sickness. These discussions build upon earlier theories of scent, which we may expect to find in the literature of earlier centuries. Homer's *Odyssey* opens with a vision of the gods inhaling the sacrifices of the Ethiopians while Hesiod's Prometheus cheats the gods by teaching men how to make an attractively scented offering of those parts of a beast they would not care to eat. Nectar and Ambrosia, the food of the gods, also has a distinctively attractive smell, and the gods were aware that, as much as they might want to eat the physical food offered to them, they needed to be content with the smell alone. That is what it meant to be divine (on this theme, see Clements, this volume).[4]

Over time, epic descriptions of dining came to shape the discussions of more conventional dining which tended to revolve the poles of morality and class. Was it a good thing to eat simply (like a Homeric hero, for instance), was simplicity of diet a sign of moral superiority, or was it a sign that one was simply not able to stake out a position amongst the people who mattered? Sophistication, when it came to dining, should not be (and was not) confused with gluttony and over indulgence. Those were always bad. The issue was rather whether or not one should spend lots of money altering the natural state of one's ingredients. A further question is whether theories of good and bad dining based upon the Greek anthropology of myth had any application in the Roman kitchen: just how did issues of scent help to shape the course of a Roman dinner? Although there were substantial culinary differences according to class and some changes in culinary taste over time, there was little significant change in the way questions about proper dining habits were expressed between the second century BCE, when we know that some Romans felt that new luxuries were having a negative impact on public morality, and later periods. Likewise it would be difficult to maintain that there major changes in the culinary regime of the kitchens of the elite leading to the emergence of an elaborate "Imperial" regime in the first century BCE. It appears rather that Roman tastes were well formed by the end of the Hannibalic wars and that moralizing discussions on fine dining in the first century CE are very similar to such critiques in the second century BCE. The notion that the third century BCE was a time of gastronomic simplicity was largely an invention of the first and second centuries CE as a feature of ongoing discussions of the moral values associated with sophisticated dining, often centred on the high cost of first-

3 Laudan (2013: 36–53).

4 *Homeric Hymn to Hermes* 132 with Lilja (1972: 97); see also Potter (1999: 171); for the examples of Aphrodite and Athena see Athenaeus, *Deipnosophistae* 687c on the social meaning of scent. Note too Classen, Howes and Synnott (1994: 105–13) on both the olfactory element in dining and for a useful discussion of the relative poverty of odorific vocabulary in European languages – Greek and Latin are no exception to the general rule that specific smells tend to be described according to the thing that generates the smell.

class chefs and the notion that dining could be pleasurable even when not excessive. At this point the basic dichotomies in discussions of dining were between simple – as in the sort of food that peasants like Baucis and Philemon would have on hand in Ovid's rather generous vision of rural livelihoods – and sophisticated. The ideal meal for a Roman of means would often consist of expensive ingredients simply served, and that was true whether the meal was "ancient" or "modern", to use terms available to the authors who provide the bulk of our evidence in first through third century CE.[5]

The discussions we get of proper Roman dining, whether in Latin or Greek, tend to be influenced by a tradition of Greek aesthetic theory going back at least as far as the fifth century BCE. The result was that in the Imperial period, Plato provides the starting point for discussions of what constituted an appropriate diet, and Plato's thinking shaped discussions of morality. The extent of Plato's continuing influence – some seven hundred years after he wrote – is evident in our most extensive account of Roman attitudes towards food, Athenaeus' *Deipnosophistae* (*Learned Dinners*) which dates to the early years of the third century CE.

Theories of cooking and scent

Athenaeus' *Deipnosophistae* is an invaluable compendium of classical attitudes towards foods of all sorts, and it opens a discussion of the Homeric poems, heavily influenced by Plato's treatment of the diet that the guardians of his ideal state should require in the course of the *Republic*'s fourth book. Athenaeus' discussion opens with a speaker who takes a Platonic stand on Homeric eating, noting that Homer's heroes tended to eat a lot of roast beef, and that, although they were based on the Hellespont, they did not eat fish.[6] A second speaker disagrees, pointing out that Homer shows signs of a more luxurious lifestyle. After a panegyric on Rome as the centre of the universe, a third speaker returns to the fray, restating the case for a simple lifestyle, while admitting that Homeric heroes might actually have a few vegetables in their diets, and doing so in a most interesting way. He notes that they ate onions despite the fact that they were filled with "most unattractive juices", which must also imply, in his view, that they did not smell nice.[7] The implication of asserting that Homeric heroes only dined on roast beef was that the best smells are the simplest smells – those of meat over an open fire, and of mature meat at that (Homer seems not to have approved of the consumption of young animals). The poet's concern for propriety meant that the heroes ate nothing but meat that they prepared for themselves (Athenaeus, *Deipnosophistae* 13c; 18a). It is possibly a

5 For the notion of a distinction between imperial and Republican cuisines see Laudan (2013: 74–87); cf. 78–80 for an excellent discussion of views on professional chefs; for Baucis and Philemon see Ovid, *Metamorphoses* 8.640–50, compare also Pliny, *Letters* 1.15 with Gowers (1993: 267–79), especially the discussion of sophisticated simplicity on pp. 275–76. On aromas as a pivotal feature of Roman dining, and their relationship to imperial expansion, see Dalby (2000: 244–47).

6 The names all having been cut out of the epitome which is all that survives, the best we can do is surmise, something that Malcolm Heath has done exceptionally well in his splendid treatment of this episode, see Heath (2000: 345–46).

7 Athenaeus, *Deipnosophistae* 1.24f.; onions do not seem to have been common in sophisticated Roman cooking, but there are seven recipes in Apicius involving onions see *De re coquinaria* 4.5.1–2; 7.12.1–4; 8.7.14, for comparative material see Classen, Howes and Synnott (1994: 104); see also p. 129 below; for the social implications of fish see Davidson (1999).

different speaker (the text at this point is a summary of the full discussion, making the identity of speakers somewhat uncertain) who simply asserts that vegetables, birds and fish are all bad since their consumption are marks of greed and it would be unworthy of heroes to prepare them for the table (Athenaeus, *Deipnosophistae* 1.25.d). It is possibly this speaker's interlocutor who objects at this point to say that Homer knew about boiled meat and more lavish preparations, basing his claim on the two lines in the *Odyssey* concerned with meals prepared for the suitors seeking the hand of Odysseus' wife Penelope, presumed now to be a widow, whom they are quite literally eating out of house and home (Athenaeus *Deipnosophistae* 1.25d–f). Then too there is a problem with the Iliadic simile in which Hector compared the soon-to-be-skewered Patroclus to an oyster-diver. This caused commentators aware of the social implications of fishing – decidedly not something that the rich should do – conniptions.[8] The implication was that Hector seemed to know a bit too much about the craft. The truth was that gentlemen did not fish; if they did fish, as in the case of the hero Menelaus and his men, trapped on the island of Proteus, it was clear that they were doing this out of pure desperation (*Odyssey* 4. 368). So, even though some sorts of fish might be (and were) luxury foods, fishing was not a leisure sport. Elsewhere, in quoting other authors from the past, Athenaeus provides ample evidence for the notion that his ancestors believed that food preparation was once simple, an explicit contrast with modern habits. One of these authors, a comic poet named Teleclides, who wrote in the fifth century BCE, provided a splendid picture of a golden age in which food prepared itself, noting that if the world worked that way, one would not need slaves.[9]

From a Roman point of view, cooking techniques were not the only issue of importance. There was also a question of decorum. Athenaeus is interested that Homeric heroes avoided bodily secretion while eating. By way of contrast, Athenaeus' speaker brought up a number of passages from comedies of the fifth century BCE dealing with the presence (and use) of chamber pots at dinner parties as well as an account by a historian of a remarkable aphrodisiac that an Indian king sent Seleucus I, which, when rubbed on the feet, caused some men to ejaculate (the context suggests at dinner). Sex was sometimes associated with dining in Roman thought, and that may have drawn Athenaeus' attention to this interesting account. Presumably as well, the art of making the Indian aphrodisiac did not disappear once introduced, and one may wonder if it had anything to do with the influence that Otho gained in Nero's court when he taught the emperor the art of foot perfumation. Ovid suggests that sex was imaginable during a formal dinner party, while characters in Petronius regard the perfuming of feet as distressing.[10]

8 On Athenaeus and Plato, *Republic* 404b–c see Athenaeus, *Deipnosophistae* 1.8c–11. On the literary influence see Trapp (2000: 358) and Heath (2000: 342–52). Homer, *Iliad* 16.747 with Heath (2000: 343).

9 Athenaeus, *Deipnosophistae* 6.268e, the significance is misunderstood in Classen, Howes and Synnott (1994: 23) who fail to note that Athenaeus quotes authors who are very ancient in his own time as a point of contrast, thus missing also the issue of cultural differences between e.g. fifth-century BCE Athenians and third-century CE Romans.

10 Athenaeus, *Deipnosophistae* 1.18e; Pliny, *Natural History* 13.22 (his question about the practice is possibly answered by the aforementioned passage in Athenaeus); for earlier Athenian foot perfuming (regarded as a practice of those who lived in luxury) see Athenaeus, *Deipnosophistae* 15.553a; on sex at dinner see Ovid, *Amores* 1.4.20–30; for fear of foot perfuming see Petronius, *Satyricon* 70 with discussion in Schmeling (2011: 288). For sex and food in general see Gowers (1993: 101; 252–53).

Jesus of Nazereth took another view, and commended the woman of dubious reputation who perfumed his feet while lecturing Peter on forgiveness.[11]

One of Athenaeus' speakers points out that Homeric heroes did not wear perfume, even though Homer was aware that perfumes existed, the contrast once again is with the modern dinner party. The basic dichotomy that emerges in the course of Athenaeus' discussion of Homeric dining habits is that in the heroic age substances were simple and, with the exception of wine, one food was not mixed with another, and thus too the smells were simple: roasting beef, some wine, presumably some scent of baking bread, but not much else.[12] What this may be taken to mean in a dining context is once again that pure scents remained unmixed scents and that "plain" food was "pure" food.

The practice of dining

Theories of scent suggest an almost opposite view of what makes for good eating from that appearing in the evidence for actual sophisticated Roman dining. At the upper end of the social scale elegance was linked to the mixture of substances, and often by changes in physical environment. It is also the case that the literary evidence we get, be it through Athenaeus, Pliny the Elder, Petronius, Juvenal, Horace or cookbooks such as that attributed to Apicius, takes us only to the very highest level of Roman culinary culture. Archaeological evidence for dining at less exalted levels reminds us that the basic rules that emerge for elite dining may have had little impact on actual practice even in relatively well-off circles at a city like Pompeii. While in a house like that envisaged for Trimalchio, all food would have been created in the kitchens, the average Roman would most likely have purchased basic foodstuffs from shops. The tomb of Eurysaces near the Porta Maggiore in Rome depicts the mass production of bread for the market, while wall painting from the Casa del Panettierre offers another image of a bread shop. Carbonized discoveries at Pompeii suggests that the average Pompeians, rather than consuming a dish that was an elaborate mélange of flavours, might prefer to eat more simply – dishes have survived that contain single food items such as olives or figs – while careful study of Pompeian food establishments has identified specific typologies for establishments that served prepared food. Such a place would typically have a marble counter into which were set several *dolia* from which individual items – olives and the like – could be served.[13] A well-known inscription from Pompeii can be read as suggesting that these establishments would not offer the same food every day, and suggests that food was pretty basic, though it might be flavoured with garlic, pepper or a sauce; the odd Claudian ban on boiling meats in *tabernae* at least tells us that these places would specialize in cheaper cuts of meat. It is likely that the reference to "boiling" means this meat was being braised with local herbs to produce something thoroughly edible, and that the Claudian ban was the result of a fear of fire (Andre 2009: 199). The way

11 *Gospel of Luke* 7.38–46, the substance used is myrrh; for a rather different meaning attributed to perfuming at dinner see *Gospel of Matthew* 26.7–12; *Gospel of Mark* 14:3–9; for a different version of the story, specifying Mary Magdalene as the anointer and including foot as well as head anointing see *Gospel of John* 12:3–8.

12 Athenaeus, *Deipnosophistae* 1.18e and 688d–e correcting a view to be found in e.g. Pliny, *Natural History* 13.2.

13 DeFelice (2007: 474–86), especially 474–76; Ellis (2005).

Dio mentions it suggests that the ban was neither long-lasting nor effective, as Claudius was essentially threatening to cut his people off from a basic source of animal protein.[14]

People eating at home – and here the evidence might be slightly skewed by the fact that Vesuvius buried it in August when people may have been dining less formally – either might not have a designated dining area if their residences were small, or would eat where it pleased them. There is some evidence, chiefly the distribution of small braziers and common-ware cooking vessels, to suggest that some dinners would be cooked off of what were essentially mobile grills rather than in a central kitchen and eaten off the nice tableware found in a nearby room (Berry 1997: 194). Evidence for the food that would be part of a meal offered at a tomb suggests that people of lower status (for whose habits this evidence was accumulated) would be interested in simple foods and meat that worked on a barbecue – standard fare included eggs, lentils, beans, vegetables, salt, bread and poultry (Lindsay 1998: 73). Other evidence suggests that wealthy Romans, when left on their own, might prefer a simple meal wherever they happened to find themselves. Even Lucius Licinius Lucullus, noted for his extravagant public banquets, might on a quiet evening choose to dine on simple food in his bedroom, while the distribution of tablewares throughout Pompeian houses suggests that people would grab a bite where comfortable when they did not have guests.[15]

A further feature of Roman dining was concern about the scent of excrement, which appears to have been connected to Roman attitudes towards good fortune and poverty. The ability to conceal the scent of excrement (and of cooking food) was a sign of a person's sophistication. One man (now anonymous) is said to have worried sufficiently about the smell even of his toilet that he had the place drenched in perfume, an act of luxury that Pliny regarded as being on the scale of that which emperors typically exhibited (Pliny, *Natural History* 13.22). Evidence from Pompeii shows that latrines were often located close to kitchens and away from both dining and alternative food-preparation areas; they were also not connected with sources of running water, meaning that the toilet area was a domestic cesspit.[16] Evidence from a variety of sources suggests that Romans felt that human excrement was especially unpleasant. Graffiti from Pompeii threaten evil to those who excrete in the streets, which is interesting precisely because the absence of human excrement in the otherwise ordure-filled avenues would not have changed the olfactory environment very much, if at all. Romans thought that demons resided below toilets, and that these demons might be occasionally inclined to pop up and interact with people on potties. Hence some toilets are associated with images of Fortuna (for apotropaic purposes) and other symbols designed to avert evil (Jansen 2011b: 165–76). The view that toilet areas are the exact opposite of appropriate dining areas is very evident in imperial contexts where, for instance, we can see how a large

14 DeFelice (2007: 479); for the list see *Corpus Inscriptionum Latinarum* 4.5830 with Cooley and Cooley (2004: 163); for the Claudian ban on boiling meat see Dio 60.6.7, the ban also included serving hot water, which was presumably mixed with spices, see also Dio 59.11.6 and 57.14.10 with Cary's note ad loc. In the Loeb edition; for the *dolia* and service at *popinae* and *tabernae* see Holleran (2012: 142–44).

15 On the distribution of tablewares see especially Berry (2007: 298), though for the explanation adopted here see Allison (2009: 19–21): I am indebted to Lisa Nevett for drawing this to my attention. For family dining see Bradley (1998: 36–55).

16 Jansen (2011a: 160–61): I am indebted to Lisa Nevett for drawing this to my attention; see also Koloski-Ostrow, this volume, for the nature of these toilets.

public toilet was located below ground for the use of the staff and that Hadrian installed luxury toilets in his palace at Tivoli.[17] The higher one's status, the further removed would one be from the smell of excrement. People who dined at *popinae* or *tabernae* could not avoid full exposure to the scents of urban life, while those who had private dining rooms would take steps, at least when entertaining, to ensure that the dining took place in excrementally unchallenged environments. Hence Varro stresses the failure of Lucullus, whom he plainly disliked, reporting that he built a dining room in an aviary so that you could see some of his prize birds cooked in front of you while others flew around the room. The problem was plainly that Lucullus could not keep the birds from defecating so that "the birds flying around the windows did not give as much pleasure to the eyes as the obnoxious odor that filled the nostrils gave offense" (Varro, *De re rustica* 3.4.3). The observation is especially pointed in that he is saying that one of the most ostentatiously wealthy Romans of his time had been drawn through his own excess into an experience of dining that was characteristic of the poorest of the poor. The need to dine in the company of one's own excrement was a sign of the deepest poverty – a poor man, in Martial's terms, was one whose property included a cracked chamber pot, rickety furnishing and smelly old food containers.[18]

The second issue relates to the question of whether food should be scented before it was eaten. Here the evidence is a good deal more ambivalent. Formal food preparation areas in Pompeian houses, for instance, tend to be separated from formal dining areas, while the poor – Ovid's Baucis and Philemon being a case in point – plainly ate in the space that their hut provided. The evidence already adduced for private dining in the vicinity of portable cooking facilities, it needs to be reiterated, was in a private context. Also, the Romans may have been conscious of the fact that some of their choices set them apart from others, especially Greeks, or, at least, the Greeks of the texts that they might read at school. Athenaeus quotes Hegesippus, a poet of middle comedy whose work is unknown outside of Athenaeus' compendium, for a cook who boasts about filling the house with the attractive smells of his lentil soup to brighten the mood of people who had previously been to a funeral (Athenaeus *Deipnosophistae* 7.290b–e = Hegesippus fr. 1). In the same context – a discussion of cooks drawing heavily on comedy – he cites some lines of Archedicus (late fourth century BCE), whose cook likewise discusses the importance of filling an employer's house with delicious aromas.[19] All the passages that he cites in this discussion of cooks point to a significant difference between what would be expected at a Roman feast and what would have happened in Athens during the fourth century BCE. The cooks of comedy are professionals hired in to provide a special meal. They are people with a vested interest in advertising their skills to potential customers. It also seems to be the case that basic technique of food preparation differed. A careful study of cooking utensils on Delos shows that characteristically Greek cooking vessels were placed directly over a fire, while characteristically Roman cooking vessels are constructed either for use in an oven or to act as ovens when placed over a fire. Similarly, Greek serving dishes suggest that the typical meal was likely

17 Jansen (2003: 137–52); Jansen (2011b: 175) on Flavian toilets.

18 For Varro's feelings about Lucullus see especially *De re rustica* 1.13; for Martial see 12.32.11–21.

19 Athenaeus, *Deipnosophistae* 7.292e (Archedicus fr. 2); for cooks and cooking scenes in Middle and New Comedy see Lilja (1972: 98–103).

a form of ragout that a person would eat while sitting. The Greek dishes are exactly what one would expect to see from the descriptions of cooks in Middle and New Comedy, while Roman dishes show, as we would expect, that there were significant regional differences in cuisine (Peignard-Giros 2000: 209–20).

Varieties of scent

An elite Roman banquet was a very different order of business from a typical meal for which both text and artefact offer us evidence. The cooks were slaves, and steps were taken to ensure that people would not necessarily know what was coming next. With that in mind, at the upper end of the Roman dining spectrum a uniquely artificial olfactory environment was required. It was only people who lacked means that showed an interest in the scent of cooking food – Martial says that the utterly poor have to exist on smells from smoky kitchens, while Juvenal says that people who are drawn by the odour of cooking to attendance at a great man's banquet get what they deserve (humiliation and none of the nice food). For Horace a man who is devoted to his belly and drawn by the smell of nice cooking is simply disreputable; for Petronius, cooks smell, and not in a good way.[20] It may be that the notion that the kitchen was a nasty smelling place is connected with the tendency to place kitchens next to toilets – the point being to concentrate the unpleasant smells in one part of a house.

Under ideal aristocratic circumstances one did not smell the food before it appeared at a Roman banquet. Indeed, given the quantity of perfume that seems to have filled the air and been slathered on the persons of the diners, the scent of any natural substance at any distance is implausible. The habit of perfuming for dinner is attested from about as early a point in the Roman tradition as anything else – it appears in Plautus' *Mostellaria*, for instance, when Philomatium meets Philolaches, her boyfriend, the first thing she mentions, in the context of offering him something to eat, is perfume. Nero is said to have had scented water dripped from pipes in dining rooms of the golden house and Trimalchio is said to have had a hoop descend from the ceiling of his dining room, bringing perfumes for his guests.[21] Elagabalus is said to have buried guests at a banquet under flowers (in what seems to have been an equipment failure, some were so deeply buried that they died). The last story, while not, perhaps, the most improbable thing ever written about Elagabalus may in fact tell us nothing more than that roses were used in large numbers at aristocratic dinner parties into the third century.[22]

In the course of the centuries between Plautus and Elagabalus, Roman tastes in perfume, while evolving, do seem to have remained consistent in so far as there

20 Martial, *Epigramsv* 1.92.9; Juvenal, *Satires* 5.162–68; Horace, *Satires* 2.38.8: the thrust of these passages is understood differently in Lilja (1972: 104–5); for Petronius see *Satyricon* 2.1; 70.11 with Schmeling (2011: 5, 290).

21 Plautus, *Mostellaria* 309; see also *Bacchides* 1181; *Pseudolus* 947; the absence of similar language in Terence suggests that these are Plautine insertions in the text. For heavy Roman involvement in the spice trade with the east in the second century BCE see De Romanis (2006: 157–63); Brun (1999: 144–47): I am again indebted to Lisa Nevett for help on this point; on Nero and Trimalchio see Suetonius, *Nero* 31.2; Petronius, *Satyricon* 60.3, with Schmeling (2011: 248).

22 *Historia Augusta, Life of Elagabalus* 21.5. Further on Elagabalus, smell and depraved emperors, see Bradley, this volume, pp. 142–44.

appears to have been a preference for eastern spices as the perfume's base. In Plautus' *Curculio*, for instance, the procuress greets a jug of wine, saying that its scent is sweeter to her than that of all perfumes: "you are myrrh, cinnamon, rose, saffron, cassia and telinum (a scent whose main element was fenugreek)."[23] About two hundred years later, Propertius imagines his girlfriend showing up scented with saffron and nearly two hundred years after that Apuleius envisages Venus scented with cinnamon and balsam. In his poem praising the ancestor of Septimius Severus, Statius rather curiously mentions what seems to be a scheme to grow cinnamon plants around Lepcis, to deprive the Arabs of their revenue, a plan that seems not to have come to fruition, and a very early coin of the Trajanic provincial Arabia depicts the province holding out a cinnamon branch.[24] The Elder Pliny, whose *Natural History* is the main written source for our knowledge of Roman perfuming, interweaves his discussion of aromatics with that of the trees and shrubs from which their constituent parts were derived, noting that while primitive man regarded trees as temples of deities, it was "subsequently trees with more pleasant liquids that made mortals more mild with their fruit". So, too, although the "right of luxury came from the gods", mortals could now see their images on the ivory legs of their tables (Pliny, *Natural History* 12.3; 5). Although Pliny is by no means a supporter of extremes of luxury – he would also write that the execution of Lucius Plotius, given away by his scent, might be thought to justify the proscriptions – he sees excesses of luxury as impious because men forget their true station.[25] But excess is excess: reasonable indulgence seems to him to be just fine, even if the practicing of perfuming was, in his view, Persian. They developed it to counter the smell of dirt, and it came to the West after Alexander captured Darius' perfume kit.

Pliny's view that the practice of perfuming arrived from the east is most likely connected with his observation that the best (and most expensive) materials from which perfumes were made were eastern. Quoting, without acknowledgement, the work of a doctor named Apollonius Mys who had written on perfumes in the first century BCE, he notes that the Egyptian city of Mendes had replaced Delos as the source for first rate perfumes and that it produced a cypress scent that excelled that of Cyprus (previously a champion) while the iris perfumes for which Corinth was most famous had given way to that of Cyzicus, and the rose perfume of Phaselis had given way to perfumes made at Naples, Capua and Palestrina. In this we may see the effect of deliberate strategies on the part of Roman aristocrats who by Varro's time were already treating roses as a cash crop.[26] Pliny felt that the most widely used scents were based on roses, because they

23 Plautus, *Curculio* 99–102 with Pliny, *Natural History* 13.13, pointing out that Telinum was popular in the time of Menander; by his time its place was taken by megalium; for Plautus' image of Roman cuisine, see Gowers (1993: 66–76).

24 Propertius 3.10.22; Apuleius, *Metamorphoses* 2.8; Statius, *Silvae* 4.5.29–32; *Sylloge Nummorum Graecorum (The Collection of the American Numismatic Society)*, part 6, n. 1155 for the coin.

25 Pliny, *Natural History* 13.25; Plotius was the brother of Munatius Plancus whose own over-indulgence was the theme of Velleius Paterculus 2.88.1–2. Further on Pliny and perfume, see Draycott, this volume, pp. 61ff and Bradley, this volume, p. 7.

26 Pliny, *Natural History* 13.4–6; that his opinions are shaped by Apollonius, identified by Athenaeus, as a follower of Herophiilus appears from Athenaeus, *Deipnosophistae* 688e–89b, for rose cultivation see also Varro, *De re rustica* 1.16.3.

grew everywhere and were mixed with a variety of other plant products. The dominance of Mendes in Pliny's time arose from the use of almond oil, which formed the base for the extremely popular megalium, a perfume that already had a very long history as it was named for a perfumer of either Sicilian or Athenian extraction who attained notoriety for his art before the end of the fifth century BCE. Two other substances that Pliny stresses in his own time are balsam, of which he says the finest type hails from Palestine and to which he appears to attribute the cause of the great Jewish revolt, and nard. Nard, or Skipenard, is native to the Himalayas on both the Chinese and Indian sides, and was an important component of the spice trade with the east.[27]

Pliny's history of unguents may be plagiarized, ill-informed, betraying ignorance of the vast range of literature cited by Athenaeus' interlocutors, and somewhat inconsistent, but it does at least attempt to provide an explanation for the Roman habit of prandial perfumation that connects scent with other Roman beliefs. It is reasonable to assume that what Pliny means when he states that the practice of luxury comes from the gods is what he says – that Roman conceptions of luxury are connected with their notions of the way that the gods live, and, by implication, the use of scent in a convivial setting imitates the gods. Another explanation, this one offered by one of Athenaeus' speakers, is not dissimilar, it is that perfuming the head is medicinally advisable when drinking. It is one of those improvements in life that could be seen as both pleasant and practical.[28] Perfumation then reflects human control of the natural world, the ability to transform substances into something different That is also characteristic of the other crucial component of a Roman banquet – the food.

In preparing food at the level of the elite there were certain smells that were best avoided. Garlic, for example, had a bad reputation as being smelly, and, by extension, lower-class if its smell was detectable (and it was a sexual turn-off). Horace denounces it in his third *Epode*, but Vergil allows how it might be mixed with thyme to make a snack for hungry labourers, and the author of the *Moretum* has it included in the epic snack that is the poem's subject. So too, the scents of onions, salted fish and strong cheese were things that needed to be avoided in polite company.[29] These comments may be particularly revealing in helping us to understand Roman thinking about what smelled bad. When it came to cheese, for instance, the best Roman domestic cheeses seem to have been small sheep-cheeses like modern pecorino and, perhaps, very fresh ricotta-style cheeses, which had a long history in Italy. Otherwise, by the first century CE, some highly regarded cow's milk cheeses, quite possibly resembling modern Gruyère, were being imported from north of the Alps. Such cheeses were not without scent, but their odours were not mouldy, a sign of cheese that was old or badly made. A desirable scent was that of food straight from the farm: so Juvenal's picture of a simple dinner of estate-grown foods is relevant – everything comes as it is with no spice: lamb, fresh eggs, pears, grapes and apples with a fresh scent (Juvenal, *Satires* 11. 56–76). This was a world in which people expected that what they ate was close to the point of production – there is no suggestion, for instance, that spices were

27 Pliny, *Natural History* 13.9 on roses; cf. 13.4, 8, 13 on Mendes; see also Athenaeus, *Deipnosophistae* 690f. on Megallus' date and citizenship; for nard see Pliny, *Natural History* 13.16; for balsam and the Jewish revolt see Pliny, *Natural History* 12.113.

28 Athenaeus *Deipnosophistae* (691f–92b), with Potter (1999: 177).

29 Horace, *Epistles* 3.4; Vergil, *Eclogues* 2.10; [Vergil] *Moretum* 99–108; Martial, *Epigrams* 12.32.17–18 with Lilja (1972: 106–7); for garlic see in general Gowers (1993: 57–58; 280–310); cf. Clements (2013).

used as preservative for meat any more than they would be used as such in the later Middle Ages when, as in the Roman world, it would come from freshly butchered animals. Meat that was boiled in a tavern may have been tough, but it was still fresh.[30]

The fact that some strong individual smells were deplored does not mean that all strong smells were avoided in Roman cooking, and it seems that a Roman dinner party, as it proceeded from the first course to the second would deliberately offer its participants a range of olfactory experiences. In the *gustatum*, or first course, it appears that there was a strong preference for raw or simply prepared food (boiled eggs of some sort seem to have been virtually mandatory as do shellfish).[31] Sauces for roasted meats in the second course, or *mensa prima*, were often similar to the curries that modern diners will encounter at Indian restaurants, or somewhat similar to the spice combinations used in contemporary Middle-Eastern cuisine rather than any of the sauces that are typical of modern Italian cuisine. Apicius' sauce for game, for instance, combines pepper, rue (the product of a strongly scented Mediterranean evergreen), lovage, thyme, mint, pennyroyal, some juniper berries, honey and *oxygarum* (*garum* with vinegar).[32] An Apician sauce for roasts includes myrtle berries, pepper, cumin, honey, *garum*, must (reduced wine) and olive oil, while that for fowl includes pepper, lovage, celery seeds, mint, myrtle berries, honey, wine, vinegar and oil (it is to be served cold).[33] In the preparation of these sauces there seems to have been some cross-over with recipes for unguents, which is perhaps not altogether surprising in that ancient aromatics were concoctions of herbs with an olive oil base made it possible to use them as modern cooks use infused oils to season food in preparations for this portion of the meal (Faas 1994: 4). The dessert course, or *mensa secunda* would again tend towards fruit, sometimes prepared as in Apicius' *apotherum*, a raisin tart (very similar to modern Turkish *Irmìk helvasi*) or his peach or pear dishes prepared over a fire in a small dish.[34] In summer one might expect seasonal fruits to accompany the inevitable wine.

Conclusion

It would be more surprising to find that the scents of the Roman dining room, and dining in general, were not socially coded than that, as with other olfactory issues, they were (Potter 1999: 182–83). On the other hand, the social significance of scent in Roman socializing does have implications for our broader understanding of both Rome's cultural history and more general issues in sensual history.

Perhaps the single most striking and important point that has emerged from this brief study is the extreme conservatism of Roman food ways. Pliny the Elder's understanding of Roman cultural history is severely tilted towards contemporary concerns, seeking to demonstrate that the later Julio-Claudian period was the culmination of man's exploitation of the natural world, with serious implications for the overall morality of the Roman people. From the earliest literature of the Middle Republic through that of the

30 For Roman cheeses see Kindstedt (2012: 81–109); on fresh meat see Freedman (2008: 3–4).
31 Giacosa (1992: 198); Grainger (2006: 18).
32 Apicius, *De re coquinaria* 8.4.2; Giacosa (1992: 28).
33 Apicius, *De re coquinaria* 7.5.4; 6.3.6 with Giacosa (1992: 29) on *defrutum*.
34 Apicius, *De re coquinaria* 2.2.10 (apothermum) with Giacosa (1992): 170–71; 4.2.34–35 (pears and peaches).

Augustan age we see, however, that the tastes that Pliny questions are present. This is of especial interest at the earliest end of the scale as we see Roman notions of sophisticated living at the end of the Hannibalic war involving the use of imported spices. Interestingly, as the Roman sense of self develops, it does so by stressing that it is very Roman to exploit the spices of the east.

In looking at the trade that brought these spices to Rome we should note some very important differences between the trade in these years and that in the later stages of the fifteenth century. In the Roman world, complaints of people like Pliny about the cost of trading with the east must be set against the evidence that he and others have offered for the importance of spice in defining class – in the Roman value system, lavish spending for the assertion of superior status was plainly seen as a worthwhile form of expenditure. Status is an economic product in that it allowed access to further avenues of profit. What is striking, however, is that in the fifteenth century desire for access to the spices of the east encouraged western European powers to develop the technologies needed to circumnavigate Africa so as not to have to deal with Muslim middle-men, and that contributed to the sudden shift in world balance of power from east to west. There would be no such development in the Roman world, where the existing technology was sufficient for sailing the Indian Ocean, and the state controlled the primary route by which spices entered the Mediterranean world. Much of that trade flowed through Berenike and other Red Sea ports and thence across the desert to the Nile and Alexandria. Concern with the safety of this trade is evident in the establishment of a Roman military outpost on the island of Farasan off the coast of Yemen in the middle of the second century CE. Otherwise the trade flowed through the kingdom of Mesene, and across the desert via Palmyra in its heyday of the second and third centuries, a trade facilitated by the often very weak control exercised over Mesene by the Parthian kings. With the destruction of Palmyra in the 270s and much tighter Persian control of the trade routes thereafter we see a shift away from trade through Mesene and far more proactive Roman intervention in Arabia, both to secure existing routes and open new ones. In the sixth century we see unprecedented intervention by the two great powers in southern Arabia, a contributing factor to the last great war of the ancient world, with collateral impact on Arabian society that may not be unconnected with the rise of Islam.[35]

When it comes to the broader issues of sensual history, Roman attitudes towards smell track rather closely to those identified by Alain Corbin in his important study of odour and the French social imagination in the early nineteenth century.[36] Such a finding should raise questions about the totalizing view of sensual history, whereby the

35 For the Roman trade with India see Young (2001: 27–89); for the passage of goods from China to India see Hansen (2012: 160–65); for Berenike see also Sidebotham (2011); for the Roman presence at Farasan, see *L'Année épigraphique* 2004 n.1643; for the history of Rome's contact with the region see now Bowersock (2013: 63–133); for the significance of competition, or lack thereof, for control of these routes see Freedman (2008: 194–214).

36 Corbin (1986: 229–32). Further on Corbin, see pp. 10, 118. Cf. Classen, Howes and Synnott (1994: 78–84) on the rise of public sanitation and the modern tendency to identify sweet smells as feminine or associate with "feminized" space such as gardens; Smith (2007: 1–18) for an overview of current scholarship; for an interesting, though rather different approach, dividing the senses between sight and hearing as the "higher" senses versus the lower ones of taste, touch and smell in categorizing witches in the early modern period see Classen (2005: 70–84); for a cross cultural analysis of smell, with special interest in excrement see Miller (2005: 335–54).

invention of print created a revolution in the hierarchy of the senses whereby vision became preeminent. The senses each play their own roles for encoding persons and places with specific meaning and status, the specific role of each sense tends to be socially conditioned, though it is by and large true of all cultures that the smell of shit is bad, and that of the rose is delightful – and that was true for men and women. Roman dining created a specific dichotomy between excremental and unguental space that was intimately related to the status of the person providing the food, and, while recognizing that simple food might have been that of the heroes of myth, asserted that personal sophistication should be matched to combinations of spices and flavours.

9

FOUL BODIES IN ANCIENT ROME

Mark Bradley

Introduction

Rome's sensory landscape was not just defined by the materials and products it absorbed from around the empire: the city's population itself marked it as a "cosmopolis", a hotpot of individuals, groups, professions and races from all around its imperial territories, and sometimes even further afield. Some Romans, particularly those representing the establishment, celebrated this diversity, and the prosperity and acclaim it brought to the metropolis. Others, particularly the conservative elite who championed ancestral values and traditions, cautioned against it and spurned alterity by classifying, compartmentalizing and evaluating the features of those under scrutiny that were most at odds with traditional Roman ideals. This system of classification helped Romans to decide what was in place and what was out of place: it concentrated primarily on the human body, and it was articulated most explicitly through the senses. Viewers could of course use their eyes in very sophisticated ways to identify the telltale features of bodies out-of-place: spurious children with complexions that betrayed their parentage; made-up women hiding their age beneath hair-dyes and wigs; effeminate men clad in long garbs or Eastern dress; diseased bodies with blemishes, rashes, scabs and other defects; and so on. Those trained in the art of public speaking could also use their ears to identify the voices of liars and traitors, the accents of foreigners and so on. Doctors and physicians developed sophisticated strategies for using the senses to diagnose disease and illnesses, which included the use of touch to measure hot and cold, wet and dry, and this specialist medical knowledge also filtered down into more popular literature. A great deal of effort was expended by educated critics to train their readers and audiences to use their senses to classify and understand the world, people and objects around them, a didactic kit for working out what was in place, and what was out of place. But, particularly in the hands of satirists, orators and biographers, as well as trained doctors, the sense of smell offered perhaps the most basic and straightforward means of reaching a rapid and incisive decision about bodies that were at the margins of civilization. Smell, then, was primarily a warning sign. It is axiomatic that one's own social group, the "in-crowd", is odourless, while those outside are malodorous: George Orwell famously remarked that "The lower classes smell", and this idea finds echoes in Roman invective where an

opponent might "smell of his father's slavery", or satire where an ex-slave might perfume his oily hair to disguise his origins.[1]

As other chapters in this volume have demonstrated, smell – both in antiquity and in modern life – is a complex and imprecise route to perception. It is often difficult to prise apart bad smells in ancient literature from a general primordial sense of dirt or "matter-out-of-place". Latin filth – *sordes, inluvies, immunditia* and so on – oozed and stirred up disgust, evoking interstitial stickiness, bad taste and pungent odours: foulness was inherently synaesthetic.[2] A fragment of the Republican satirist Lucilius (29.851) talks about things which are foul by sight and by smell (*quaeque aspectu sunt spurca et odore*), and the commentator Nonius notes from this (394.16) that foul (*spurcum*) and smelly (*fetidum*) were one and the same.[3] The idea that smell was an inherent property of the object that produced it, and that olfaction operated in a way that was analogous to sight and all the other senses finds expression in ancient approaches to the physics of perception. Among the many theories of the mechanics of olfaction in ancient philosophy (see Baltussen, this volume), Epicurean philosophy maintained that objects and bodies emitted invisible particles which assailed the nostrils of perceivers, just as it maintained that particles assailed the eyes of observers: pleasant smells resulted from particles whose shape fitted smoothly into the pores of the receiver's nose and foul smells stemmed from particles that were jagged and jarred as they entered those pores. Of course, different creatures responded differently to different smells just as with visions, but there were some bodies that were inherently repellent, and civilized ancients were expected to muster all their wits and senses to detect these bodies.[4] This said, as earlier chapters in this volume have demonstrated, some questioned the ability of the nose and other sense organs to decipher the truth and lead perceivers in the right direction: a fragment of a Latin poem sometimes attributed to Petronius (*Anthologia Latina* 650) observed that the senses sometimes deceive us and tell us falsehoods, like when the full stomach turns from the delicious honey of Hybla, or the nose detests the fragrant scent of cinnamon (*et naris casiam frequenter odit*).

This said, it is also clear that bad smells could be negotiable phenomena and a product of cultural prejudice: ancient observers already knew where they expected them to

1 Orwell (1937: 159), with Hyde (2006: 56) and Menninghaus (2003: 22–23); see also Kaster (2005: 125). Valerius Maximus 6.2.8 (*servitutem paternam redolenti*); Martial 29.5 on a perfumed freedman; Lucilius 11.430–31 (Nonius 394, 16), where Scipio expels all the filthy camp followers as one would expel dung out into the open (and inadvertently gets his face dirty, *spurcus*, in the process); see also Appian, *Iberica* 85. Cf. Varro, *Fragments of Menippean Satires* 66: "Our fathers and grandfathers had an excellent attitude, even though their words did smell of garlic and onion" (*cum alium et cepe eorum verba olerent*), discussed in Wiseman (2009: 149); Lucilius 30.1030 and 30.1081 on bodies that stink (*perolesse*) of the muck, dirt and dung of cattle. Aspects of odour and Roman social class have been explored by Potter (1999). On Rome as cosmopolis, see Edwards and Woolf (2003). On race and Roman discrimination, see Balsdon (1979). On bodies, vision and epistemology, see Bradley (2009a), especially chapters 5 and 6. On bodies and slaves, see Thomas (2002). On approaches to the body in Roman satire, see Braund and Gold (1998); more generally, see Highet (1962). On Roman bodies and transgression more broadly, see Moreau (2002); Hopkins and Wyke (2005).

2 See Menninghaus (2003: 109–11) on the relationship of smell and taste to the "vital sensation" of disgust; further on these ideas, see Kaster (2001, esp. 155–58); Curtis (2013).

3 Cf. Nonius 413.7 on *taetrum=inluviosum* and *faetidum*. Lucilius 30.1113–14 on *inluvies=sordes*.

4 For Lucretius on smell, see *On the Nature of Things* 4.673–705, developing on Epicurus, *Letter to Herodotus* 53, with Lilja (1972: 12–13).

lurk, and so their diagnosis was often premeditated. Indeed, it has been observed that "Rather than a cause of … antipathy, … olfactory aversions are generally an expression of it", and this aversion maintains that the smell inheres in the bodies that are marginalized in this way.[5] So it is that in Sophocles' *Philoctetes*, the tragic hero exhibits an inflamed, suppurating and stinking sore on his snake-bitten foot, to which the tragedian returns again and again as a sign of his polluted status, and which emitted a foul smell (*dusosmia*, 876); and early Christianity exploited these associations between stench and sin to the full.[6] Furthermore, as the polluted Philoctetes demonstrates, because smell can be perceived at a distance that distance can itself serve as an expression of the rejection of the subject by the perceiver.[7]

Unsurprisingly, bodily substances are often the focus of smell aversions when they are out-of-place: excrement produces a foul smell in most contexts, especially on the body, but perhaps not on the ancient crop-field; urine offends the nose (but see below pp. 140–41); sweat can stink, particularly if it exudes from the body of a high-society woman who should smell better; blood, whether shed on the battlefield or in a woman's monthly cycle both stained visibly and befouled the touch and the nose; and pus, vomit, phlegm, sputa and other discharges, particularly from the sick and dying, could reek (further, see Totelin, this volume).[8] "Body odour", then, was typically dirty. As others in this volume have shown, ancient smells could mark positive or negative traits across a range of environments: the fragrance of divine presence or sacred space (Clements, Draycott) or the foulness of busy urban communities in which observers are immersed (Koloski-Ostrow, Morley); the savour of banquets (Potter) or the allure of sexy bodies (Butler), good smells that made people want to close in on, touch and taste the things that emitted them. This chapter will examine the opposite type of body from those engaged by Butler, bodies that evoked disgust, distance, bile and vomit, and which represented the worst elements of Roman politics and society. Like Butler, it will concentrate on a corpus of literary evidence, a world perceived through the noses of Romans, but it will focus principally on Imperial satire, invective and biography, where smells formed part of a broader sensorium used to diagnose bodies that posed a threat to ordered, civilized society.

Foul habits

Canny Roman observers connected bad smells to foul habits: excessive wine consumption, rich foods and especially oral sex. The body's odours bore witness to the

5 Classen, Howes and Synnott (1994: 165).

6 See Harvey (2006); Toner, this volume. On Philoctetes, see Lilja (1972: 163).

7 See Classen (1993); Menninghaus (2003: 39).

8 Generally on human body odour, see Lilja (1972: 120–48); cf. 163–71 on disease and death. On Latin vocabulary relating to bodily functions, see Adams (1982: 230–50). On excrement, smell and disgust in Freudian psychoanalysis, see Menninghaus (2003: chapter 6); on urine, see Bradley (2002); on procreative and nourishing substances produced by the Roman body, see Dupont (2002). On menstrual blood and defilement, see Lennon (2010); von Staden (1992); cf. Paulus ex Festo 23 on "*bubinare*" meaning to defile with menstrual blood and "*inbubitare*" signifying defilement with a boy's excrement. On the smell of bloodshed in battle, see Lucan, *Pharsalia* 7.825–27 (*caedis odorati*); Tacitus, *Annals* 4.49 (*pollui cuncta sanie, odore, contactu*). Cf. Valerius Maximus, 1.6.5 on a prodigious rain of flesh in 461 BCE which *did not* have a foul odour. On dirty bodies in a Classical Greek context, see Osborne (2011), especially chapter 6.

irresponsible and improper control of the orifices, both what went in them and what came out of them, and this idea of the permeability of boundaries governs notions of the foul body, as outlined by Mary Douglas and extended in Mikhail Bakhtin's discussion of the "grotesque body".[9] Those who allowed their orifices to be compromised and used inappropriately – particularly promiscuous women, passive homosexuals, drunkards and gluttons – could be identified by the telltale whiff of their bodies. These associations were deeply embedded in classical thought: foul body odour, for example, was a defining feature of the man-eating Cyclops Polyphemus, Homer's monstrous Chimaera, the malodorous Eumenides in Aeschylus' *Oresteia*, excremental harpies in Apollonius and Vergil, goaty slaves and garlic-chewing parasites in Greek and Latin Comedy, and the foul bodies of Greek and Latin epigram – all alluding to the notorious whiff of beastly bodies and the world of smell that was the proper domain of animals.[10]

Martial's *Epigrams*, for example, written in the last decades of the first century CE and offering a wide-ranging satirical assessment of Roman life, contain a mine of information about these connections: the dissolute Acerra who reeks (*fetere*) of wine (1.28; cf. 1.87), for example; Baeticus whose stomach trouble attests to the rich, putrid food he consumes (3.77); or Zoilus the fellator's mouth, which smells even worse (*peius olet*) than that of a barrister or a poet.[11] Roman women in particular were frequently the subject of these barbed satires: at 1.83 he compares a dog licking Manneia's face and lips to a dog eating dung, implying that she is a fellatrix and so her mouth stinks (cf. 3.17, where a fellator breathes on a hot cake to cool it down, but turns it into excrement).[12] In fact, the "foul mouth" (*os impurum*) that was thought to characterize those who performed oral sex was one of the most familiar forms of slander in Roman invective in the period of the late Republic and early Empire: it was a favourite in the armoury of Catullus, Horace, Petronius and Martial, and Cicero was not above employing the accusation to discredit his opponents in judicial speeches, implying that their bad breath was evidence of the corruption of their mouths' capacity for delivering reliable and

9 Douglas (2003: xxxvii–xxxviii); Bakhtin (1968: 26–27):

> Contrary to modern canons, the grotesque body is not separated from the rest of the world. It is not a closed, completed unit; it is unfinished, outgrows itself, transgresses its own limits. The stress is laid on those parts of the body that are open to the outside world, that is, the parts through which the world enters the body or emerges from it, or through which the body itself goes out to meet the world. This means that the emphasis is on the apertures or convexities, or on various ramifications and offshoots: the open mouth, the genital organs, the breasts, the phallus, the potbelly, the nose. … This is an unfinished and open body without clearly defined boundaries.

These ideas have been applied widely in classical scholarship: see for example Carson (1990); Walters (1997).

10 All of these examples are examined in detail by Lilja (1972); see especially 149–62 on animal smells. Cf. also Introduction, pp. 4–5.

11 Cf. 2.61 on a vicious prosecutor whose noxious tongue (*noxia lingua*) was cleaner (*purior*) when it licked genitals; see also 3.28. See Sullivan (1991), especially c. 5 "Martial's sexual attitudes"; see pp. 202–3 specifically on smells.

12 Cf. 2.50 on Lesbia washing her mouth out with water after performing fellatio; 3.55 on the excessively perfumed Gellia swanning around the city like the perfumer Cosmus moving shop, but (claims Martial) even a dog can smell nice in the same way; see also 9.30.

persuasive speech.[13] The principle that what is ingested permeates the body's boundaries, infects it and is then excreted and in turn becomes infectious is a basic axiom of this somatic discourse. Luxury dining is a typical victim of these associations: Martial 12.48 describes in lurid detail how extravagant banquets end up as vomit, piss and shit, and this idea that rich foods come back to haunt the diner in a range of unpleasant ways appears to have been a very wide-ranging topos in Roman satire.[14]

Sometimes, these habits could be presented with subtlety and sophistication, and left to the reader's imagination: at 2.12, Martial plays to a poetic cliché in describing Postumus, whose kisses smell of myrrh (*olent tua basia murram*), but points out that such an artificial scent (*alienus odor*) can only be a distraction from some underlying odour: anybody who smells good all the time is suspect – "*non bene olet qui bene semper olet*".[15] And at 7.94, when the fellator Papylus opens a jar of rich perfume to smell it, it turns to *garum* (a notorious rotten fish paste: see p. 104), implying that his rotten breath contaminates everything around it. Polluted bath-water was also a favourite object of disgust, and several of Martial's epigrams allude to the contamination of water in which obscene individuals had washed their groins or arses: bathing in this water was of course only in part an olfactory experience (such water was generally "foul", *spurcus*, to every orifice or sense), but again the underlying themes were permeable boundaries, leaky bodies, pollution and disgust.[16] Filth exuded from foul bodies into the outside world, and made itself known most conspicuously to the nose. Indeed, stinking objects were by conjecture infected by the bodies that engaged with them, like Martial's Vacerra (12.32) who is depicted moving all his foul-smelling valuables to a safe spot.

Bad breath as a consequence of obscene habits was one of a number of smells emitted by the foul body. Sweat (Latin *sudor*) was typically connected to misfortune (statues of gods dripping with sweat were viewed as an ill omen), as well as to disease and illness.[17] In medical circles sweat was linked to the body's effort to purge itself of toxins, or to a corrupt balance of humours: one of Plutarch's philosophical banquet questions debates how much of an alcoholic Alexander the Great was, and the winning argument – based on no less an authority than Theophrastus' theory of the humours – claimed that the fragrant sweat which stained his clothes was evidence of a hot constitution from his heavy binges;

13 See Catullus 39, 78b, 97, 99.10 (the foul saliva of a whore drenched in piss, *commictae spurca saliva lupae*), with Fitzgerald (1995: 262); Skinner (2003: 79). Petronius, *Satyricon* 21; 23.3–4 on the stinking kisses of a *cinaedus,* with Taylor (1997: 354). Martial 12.85.1: *pediconibus os olere dicis*, with Taylor (1997: 356); Cicero: Q. Apronius at *Against Verres* 2.3; Sex. Cloelius at *On his House* 25, 26, 47–48, 83; Horace, *Epodes* 8.11; on Horace and sexual obscenity, see Curran (1970); Baldwin (1991). Further on sex smells, see Richlin (1992), especially 27, 69, 99, 112, 150; Worman (2008: 322–23); Edwards (1993) chapter 2 on "Mollitia: reading the body", especially 70–73 on sexual practices. On Ciceronian invective, see Arena (2010: 156); see also Walters (1998). On women's bad breath in the morning, see Ovid, *Ars Amatoria* 3.198. Cf. Lucilius 30.1255–56: *ore corupto* (sic): with a corrupt mouth; 30.1262 on a man spitting forth bitter (*amarus*) brine from his mouth. Generally on bad breath, see Lilja (1972: 124–31).

14 Cf. Plutarch, *De tuenda sanitate* 125e; Lucilius 26.662: a curious fragment about picking food from filth (*e caeno cibum*). Further on smelly foods, see Martial 5.78, with Gowers (1993: 250–55). More generally on the body of the ancient gourmand, see Karila-Cohen and Querilla (2012).

15 See also Lilja (1972: 122). Cf. 6.55: smelling of nothing is better than smelling of perfume.

16 Martial 2.70: washing in bath-water contaminated by cock – cf. 2.42; 2.50; 11.95, with Obermayer (1998: 220–22). 6.81: washing groin and then head in public baths.

17 On perspiration and filth, see Lilja (1972: 131–37). On ill-omened statues: Cicero, *De divinatione* 1.78, 98–99; 2.58.

just like hot, dry climates produce frankincense and cassia, the noxious moisture in Alexander's body was driven out by the heat caused by an imbalance of the humours.[18] On the other hand those who, like the fortunate Furius in Catullus 23, produced no sweat, mucus or faeces, though they might achieve an idea state of cleanliness (*munditia*), were unnatural and suspect: manly smells were normal, as suggested by the words Plutarch attributes to Alexander in his compilation of *Sayings of Kings and Commanders*, when the king points out that his delicate Persian enemy will not be able to endure the goat-like stink (*ton grason*) of the Macedonians in battle (180C). But sweat was also the product of embarrassment and fear: the "smell of fear" also betrayed bodily weakness, and vigilant Romans could imagine their noses detecting these traits.[19] Excessive sweating was sometimes considered an animalistic trait, and it is no accident that goatiness was an enduring and pervasive metaphor for these body odours: at Catullus 69, Rufus is accused of keeping a rank goat (*trux caper*) under his armpits, an evil beast (*mala bestia*) that is a nasty nuisance for the nostrils (*crudelis pestis nasorum*). Even worse in Roman satirical and comedic literature were vaginal effluences, which had a long history of association with pollution: in Plautus' play *Menaechmi*, for example, the character Peniculus is asked to smell a woman's used mantle which is about to presented as a gift to a courtesan; Peniculus replies "It's better to sniff the top of a woman's garment, as at that place down there the nose is befouled with an odour that won't come out" (59–60). In addition, there appears to have been a long-standing association between flatulence and incontinence (in the broadest sense), as well as unbalanced humours, fear and extravagant food.[20]

But it was particularly efforts to conceal these various smells with perfumes, breath fresheners and the like that came under fire from the educated Roman observer. In Plautus' comic play the "Haunted House" (*Mostellaria*), first performed in the late third or early second century BCE, the courtesan Philematium suggests putting on a little perfume, but is stopped in her tracks by her wise old maid-servant Scapha, who reminds her that a woman smells right when she doesn't smell at all (*mulier recte olet, ubi nihilo olet*); she goes on to point out that old women who douse themselves in perfume (*quae se unguentis unctitant*) and try to conceal their bodily blemishes with make-up invariably sweat buckets and the sweat fuses with the perfume (*sudor cum unguentis consociavit*) to create an odour like a cook blending sauces over a stove: "You might not be able to tell what they smell of", Scapha concludes, "but one thing is clear – they smell vile!" (*quid olant nescias, nisi id unum, ni male odere intellegas*). Scapha's wise words must have been a commonplace in ancient comedy, and her warning must have struck a chord among Plautus' mid-Republican audience, who were increasingly scrutinizing female propriety, and particularly the inappropriate use of self-adornment: both perfumes and cosmetics were thought to conceal and misrepresent the female body, but the trained nose could understand (*intellegas*) and expose the disguise when the foul humours within mingled with the foul unguents without, releasing odours like the fumes of a rank kitchen.[21]

18 Plutarch, *Quaestiones Conviviales* 1.6.6: φησιν ἐπιγίγνεσθαι τὴν εὐωδίαν, ὅταν ἐξαιρεθῇ τὸ βλαβερὸν ὑγρὸν ὑπὸ θερμότητος. On sweat and illness, see Hippocrates, e.g. *Aphorisms* 4; *De morbis popularibus* 1.2–4; Celsus 2.5; Vergil, *Aeneid* 9.778. Cf. Plutarch, *Aemilius Paullus* 25 on horses reeking of sweat.

19 Aulus Gellius 9.15; 19.10; Petronius 62, 101, 128.

20 On scatological smells, see Lilja (1972: 138–44).

21 Plautus, *Mostellaria* 272–78. On cosmetics and the female body, see Bradley (2009a: 162–74); Bradley (2014: 194–97).

This theme of futile concealment and olfactory detection was far-reaching. At *Epode* 12 Horace warns an old female admirer to back off: he does not have an insensitive nose (*naris obesae*), and he can sniff out like a hound the stinking cuttlefish or goat that lurks in her hairy armpits, and the nasty odour when she breaks into a sweat as she grinds away and the chalky face-paint and crocodile-dung blusher begins to run. Martial too had a keen nose: at 1.87, for example, Fescennia takes pastilles to freshen her breath so that she doesn't smell (*ne … fragres*) of yesterday's wine, but the poet observes that the pastilles might line the teeth (*linunt dentes*) but do no good when a belch returns from the abyss (*extremo ructus cum redit a barathro*). Furthermore, Martial proceeds in a flurry of vitriol, the foul odour (*virus*) smells worse when mixed with scented powder (*dapasmate*), and the double-scented breath (*duplex odor animae*) carries even further; he concludes "Away with your tricks and detected cheats that are so well-known, and be a simple drunk". Likewise at 5.4, Myrtale tries to conceal her alcoholism by mixing wine with laurel leaves to conceal the smell, but – where smell is undiscerning – sight prevails and Martial warns his addressee to look out for the telltale red flush and swollen veins.[22]

Bassa, a regular butt of jokes in Martial's *Epigrams* for her obscene habits, is defined by her foul-smelling body. At 4.4 she is likened to the stench of a drained marsh, the vapours of a volcanic sulphur spring, a horny goat on heat, as well as a veteran soldier's worn-out boot, a double-dyed purple fleece (see below, p. 142), and an ascending list of noxious odours, none of which smell as bad as Bassa herself.[23] But the real humour resides in her efforts to conceal her smell, and at 4.87 – almost as a poetic afterthought – Martial observes that Bassa sits next to babies in order to disguise her chronic flatulence (*pedere solet*). Perfumed males were even more suspect. A generation earlier Pliny the Elder, as part of an extended discussion of man's exploitation and misuse of nature, catalogues the perfumes, herbs and spices in which contemporaries indulge for scents to conceal their filth (*inluvies*): he exclaims at 13.25 that "Nowadays some people actually put scent in their drinks, and it is worth the bitter flavour for their body to enjoy the lavish scent both inside and outside" (further on Pliny and perfumes, see Introduction p. 7 and Draycott, this volume). For some observers, then, odours – whether good or bad – were properties of bodies that were somehow at odds with civilized society. Indulgence in odours characterized obscene plebs and decadent elite alike, but the ability to detect those odours and understand their origin and significance was the hallmark of a highly skilled and educated Roman nose.

Foul professions

In the fourth century CE, the Stoic astrologer Firmicus Maternus predicted (3.7) that those born during the night at a particular time of the year would lead tough lives of daily labour engaged in sordid and relentless activities that involved a powerful stench, and would be highly irritable and prone to vice: bakers, cooks, tanners, wool-workers, fullers and the like. Like any large city, Rome – along with centres like Ostia and Pompeii – stank with the effluvia of industry (further on this, see Koloski-Ostrow, this

22 For further references on concealing bad breath in Ovid, Horace and Vergil, as well as Greek sources, see Lilja (1972: 130–31).

23 Cf. 6.93, where Thais receives similar treatment: see Introduction, p. 6. On 4.4, see Lilja (1972: 136).

volume). Fishmongers, butchers, tanners, bakers and the like filled the urban environment with a host of competing smells. To what extent these smells were classified as a nuisance, or indeed were even noticed on a daily basis, is debateable (see Morley, this volume), but those who produced them typically belonged (at least in Roman elite discourse) to the social underclasses and carried the stigma of being in some way unclean or polluted. Unsurprisingly, prostitutes and brothels were in particularly bad odour: Horace (*Satires* 1.2.30) and Juvenal (6.132, 11.172–73) described brothels as stinking places (*olenti in fornice/ lupanaris … odorem*), and Lucilius (30.130) had described the beastly-smelling bodies of old whores (*quis totum scis corpus iam perolesse bisulcis*). But perhaps the most interesting example of a foul profession was that of the fullers, the cloth-cleaners and professional launderers of ancient Rome.[24]

As was the case in most pre-industrial societies, cloth-cleaners typically used a range of noxious substances to treat the fabrics with which they worked, and there is evidence that Roman fullers made extensive use of human urine, sulphur and other offensive detergents to de-grease and cleanse the woollen cloth they treated. The olfactory implications of these substances were not lost on elite observers, much as they relied on these establishments to provide them with the presentable garments that were a *sine qua non* of aristocratic society. A fragment of Titinius' lost play *Fullones*, for example, describes a "nasty smell that assaults the nose" (*nasum oppugnat foetida anima*), and a character in Plautus' *Asinaria* complains about an unbearable smell, which would have been tolerable had he learned the fuller's trade ("*si non didicisti fulloniam, non mirandum est*", 907). One of the archetypal stenches to which Martial compares the foul Thais is a fuller's urine jar, recently broken in the road (6.93). Apuleius' *Metamorphoses* describes a fuller's unfaithful wife whose lover falls foul of her husband's equipment when he hides under one of the bleaching frames and starts sneezing and choking because of the caustic sulphur fumes (*acerrimo grauique odore sulphuris*, 22–24). The social stigma attached to the fullers who carried out this work is undeniable. Being a fuller, or counting a fuller among your ancestors, was a classic slur: according to Plutarch, Cicero was rumoured to be the son of a fuller and trained in the art of fulling, and Cassius Dio describes a speech delivered against him in 43 BCE describing his fulling background and his exposure to petty cloth-theft, filth and abuse – little wonder that he was so good at "fulling" his superiors.[25] Laws and legal documents regulating fullers' activities and recording a host of disputes over contracts, loans, theft and damage, as well as the contamination of water supply and spread of vermin, suggest that fulling carried a heavy stigma in Roman society, and fullers were a typical target for satire and invective, one of a familiar list of base, servile and immoral figures alongside bath-keepers, blacksmiths, weavers, cripples, perverts, and so on.[26]

24 I have examined the social and cultural status of fulleries in depth in Bradley (2002). More recently, see Flohr (2013), especially 185–86. On the stenches of tanning, see Kaster (2001: 176–77).

25 Plutarch, *Cicero* 1.1; Cassius Dio 46.4–5. Cf. Ammianus Marcellinus 14.11.31.

26 For the legal status of fullers, see Pliny, *Natural History* 35.197; Frontinus, *De aquis* 91.5.2; *Digest* 19.2.13.6; 19.2.31; 39.3.3 on "*spurca*" in the water-supply. See Martial 3.59; 12.59; cf. Pliny, *Natural History* 34.11 who describes the strange story of Clesippus, a deformed, hunchbacked fuller ("*fullo gibber et praeterea et alio foedus aspectu*"). See also Macrobius, *Saturnalia* 2.2.9 on Faustus Sulla's sister committing adultery with a fuller's son: the speaker, Avienus, extends the joke by pointing out that the other *moechus* in the affair was called Macula; he's baffled that Faustus' sister has a "stain", when she's also got a fuller ("*miror inquit sororem meam habere maculam, cum fullonem habeat*").

One imagines, like Firmicus Maternus, that fulling was a noxious, unhealthy and undesirable profession, and that those who did the cleaning must have suffered from serious forms of dermatitis, fungal skin infections and respiratory illnesses and so on. But while an argument can easily be made about fullers' foul bodies, it is clear that fullers could also be respected and celebrated, and the activity in which they engaged performed an important, and sometimes even prestigious, function in Roman life: fulleries were often situated in the heart of Roman towns alongside grand private houses and public monuments; *fullones* tended to be wealthy, high-status individuals who were sometimes members of high-profile and influential guilds; and commemorative art and literature does not appear to shy away from parading the fulling profession or its activities (biblical literature sometimes celebrated the purificatory function of fulling).[27] Furthermore, even gods did not turn their noses up at fulling: Minerva was the fullers' patron deity, and a painting in the House of the Vettii at Pompeii had no issue depicting Cupids stomping in cloth-cleaning vats, alongside other menial activities.[28] The foulness of fulling could be recalibrated, even ignored, in light of the industry's critical role in cloth-preparation and cleaning. Suetonius' satirical anecdote, in which Vespasian responds to Titus' rebuke about the new imperial tax on the collection of urine by fullers by holding a coin to his son's nose and asking if its odour was offensive (*num odore offenderetur*), was a cynical expression of the flexibility and renegotiability of disgust under the right circumstances.

The cultural tensions between pragmatic cleaning and social contamination are both paraded and parodied by these approaches to fulling, and serve as a reminder that smell was a highly fluid and subjective valuation of social status. This does not mean that smells exist entirely in the minds of observers: it is evident that the nose can be trained to tolerate, and even normalize, bad smells. Olfactory receptor cells in the nose typically detect changes or unusual sensations in the environment; when bombarded by the same sensations, these cells can become saturated so that they no longer detect these olfactory stimuli or recognize them as a threat (Plautus' joke about the fuller learning to tolerate smells exposes precisely this trend): further on olfactory "habituation", see Morley, this volume pp. 118–19. What this means is that foul smells can be re-learned, normalized and culturally packaged: there are no hard and fast rules. "Old lant" (stale urine) was used in English fulleries as late as 1935, and pig's dung was regularly trampled into English cloth; when soap was first introduced to laundries in the late nineteenth century, some (we hear) complained about its offensive smell.[29] For most of us today, urine in the laundry is a step too far, although we tend not to turn our noses up to bleach or biological enzymes in the washing machine. In other areas no such consensus exists: crops nurtured in manure are difficult in some circles, in others chemical fertilizers are out of place. Because smell is so imprecise, and because it is so closely connected to preconditioned ideas about dirt and propriety, it could be a highly versatile and therefore potent index of social and moral judgment.

27 Moeller (1976: 83ff.). On biblical literature, see Mark 9.3; Malachi 3.2.3; Shepherd of Hermas *9th Similitude* 32.2–4, using a fulling analogy for the return of one's soul intact (*integrum*) to the Lord.

28 A wall painting in the fullery of Hypsaeus (location VI.7.20–21) may show Minerva in a fullery: see Flohr (2013: fig. 26).

29 For references, see Bradley (2002: 41).

At the other end of the spectrum from fullers, important Romans clothed in purple garments looked the part: they carried an expensive, prestigious colour traditionally worn by the rich and powerful in the Mediterranean world, and one that gleamed and shimmered in a unique and tantalizing way. Indeed, there is no dearth of literature extolling the visual appearance of this dye. Because it was one of the most colour-fast dyes available in antiquity, some also deduced that its wearers were clean individuals who could wash their clothes often without them losing colour. However, cynics and sceptics did not overlook the paradox that Rome's emperors, politicians, priests and social climbers carried on their bodies a colour that was extracted from sea-snails, and which retained its powerful fishy smell however much clothes dyed with it were washed and rinsed. Martial with his satirical nose sniffed out and exposed the irony of strong-smelling Sidonian purple, which he claimed was among the foremost nuisances encountered in the city in his day (4.4.6): so strong was the odour of this dye, he jokes, that sweaty, foul-smelling women like Philaenis would wear it to conceal their body odour (9.63). And Pliny the Elder, who was not even impressed with the colour of this dye (which he claimed resembled a gloomy and angry sea: *glauco et irascenti similis mari*), is amazed that Rome's most powerful and sacrosanct figures carry around with them such an unhealthy stench (*virus grave*) (9.127). By the fourth century CE, the ritual of *Adoratio Purpurae*, in which the loyal subject would kneel and kiss the corner of the emperor's purple robe, had become institutionalized in imperial court ceremony as a mark of allegiance. Pliny would certainly not have missed the irony of this gesture, which must have assailed the mouths and noses of the emperor's subordinates. However, it is clear that the emperor's body, right at the top of the social pecking order, was indeed subjected to extensive scrutiny, and that its odours, like its appearance, could be a powerful index of the emperor's behaviour, politics and government.

Foul emperors

The emperor's body has long been acknowledged as a key site for evaluating the character of both the emperor himself and the regime over which he was in charge. The stock descriptions of personal appearance in each of Suetonius' lives of the emperors have been shown to be influenced by prevailing physiognomic doctrine, where somatic defects functioned as telltale signs of imperfections in the emperor's character and personality: Caligula's pallor and thin limbs pointed to the fragility of his mental state and leadership, while Vitellius' obesity underpinned the greed that characterized his regime. While most of these connections were concerned with the emperor's visual appearance, keen noses could also help characterize the wayward *princeps*.[30]

Many of the anecdotes relate to the use of scents: decadent, effeminate emperors tended to be heavily perfumed. In the same breath as describing Caligula's exotic feasting, Suetonius reports claims that the emperor regularly bathed in hot or cold perfumed oils (*Caligula* 37.1). The route of Nero's triumphal return from Greece was sprinkled with perfumes and sanctified with sacrificial victims as if paving the way for a god (*Nero* 25.2),

30 On the emperor's body and its significance, see for example Barton (1994); Bradley (2011) especially 2–3, 29–34. For good ancient examples, see Suetonius, *Caligula* 50.1; *Vitellius* 17–18, with Evans (1935) on Suetonius and physiognomy.

and Pliny the Elder records a story that Otho had taught Nero to perfume even the soles of his feet (*Natural History* 13.22). Suetonius includes among the excesses of Nero's Golden House a description of panels that would shower down flowers and pipes that would sprinkle guests with perfume (*Nero* 31.2), foreshadowing the famous episode in which Elagabalus was reputed to have suffocated his banquet guests with flower petals released from a reversible ceiling (*Historia Augusta, Elagabalus* 21.5).[31] Elagabalus' life, according to his biographer, was immersed in scent: his living quarters were strewn with roses, lilies, violets, hyacinths and narcissus, and he would only swim in pools that had been perfumed with saffron or other essences (18.7–8); furthermore, his grand public spectacles were as striking for their scents as for their visual magnificence (23.1). Some emperors signalled their moral integrity by rejecting these delicate odours: according to Suetonius, Vespasian revoked a military appointment when he encountered the young man in question doused in perfume, adding "I would rather you reeked of garlic" (8.3). As with the deceptive perfumed women that populated Martial's *Epigrams*, it was better to smell of nothing at all: perfumed emperors masked their vices like they masked their bad smells.

Sometimes, emperors simply smelled bad. The *Apocolocyntosis* or "Pumpkinification" of the emperor Claudius, sometimes thought to have been written by Nero's philosopher tutor Seneca as a satirical parody of the emperor's apotheosis, mocks the old emperor's foul and distinctly ungodly body ("a body born under the wrath of heaven", as the divine Augustus is later imagined saying), which dragged its foot, jerked its head, spoke no language anybody could understand (*vocem nullius terrestris animalis*) and defecated itself as he died, just like he defecated on everything else while he was alive ("*vae me, puto, concacavi me. quod an fecerit, nescio: omnia certe concacavit*"); this perhaps picks up an enduring association between the emperor and flatulence, since Claudius is said to have considered issuing an edict allowing the passing of wind at banquets.[32] Several generations later, the *Historia Augusta* describes Maximinus Thrax, who drank so much wine and ate so much meat that he literally sweated buckets, which he would then exhibit by the pint (4.1). This idea of innate foulness exuding from the emperor's body is most vividly recounted in Lactantius' description of the death of Galerius in 311 CE (*De Mortibus Persecutorum* 33), struck down by a terminal disease that started out as a malign cancer on his genitals, which spread around his body despite repeated surgery, eating away at his entrails and dissolving his buttocks in decay (*conputrescunt forinsecus viscera et in tabem sedes tota dilabitur*). Lactantius revels in his extended account of the gruesome disease:

> *percussis medullis malum recidit introrsus et interna comprehendit, vermes intus creantur. odor it autem non modo per palatium, sed totam civitatem pervadit. nec mirum, cum iam confusi essent exitus stercoris et urinae. comestur a vermibus et in putredinem corpus cum intolerandis doloribus solvitur.*
>
> *clamores simul horrendous ad sidera tollit,*
> *quales mugitus, fugit cum saucius aram*
> *taurus.*

31 Cf. *Historia Augusta, Commodus* 11, accusing Commodus of mixing excrement into his guests' food, which he would even make a show of tasting himself.

32 [Seneca], *Apocolocyntosis* 4–6; see Braund and James (1998). On the proposed edict, see Suetonius, *Claudius* 32.

> *adponebantur ad sedem fluentem cocta et calida animalia, ut vermiculos eliceret calor. quis resolutis inaestimabile scatebat examen et tamen multo maiorem copiam tabescendorum viscerum pernicies fecunda generaverat.*
>
> As the marrow was assaulted, the infection pushed on inwards and seized his internal organs; worms were spawned inside him. The smell spread not only through the palace, but pervaded the whole city. No wonder, since the tubes for his urine and his excrement were now melted together. He was consumed by worms and his body was dissolved into a state of rot amid intolerable pain.
>
> [quoting Vergil, *Aeneid* 2.222–24 on the death of Laocoon:] "At the same time he raised terrible cries to the stars, like the bellowing of a bull when he flees the altar wounded".
>
> Meats cooked and warm were set near his putrefying buttocks, so that the heat could draw out the little worms: when these were broken up, an innumerable swarm of these creatures squirmed out, and the very disaster that had befallen his rotting flesh was fertile in generating a far greater quantity of them.

Lactantius' morbid description of Galerius' illness was part of an indulgent and highly creative exercise in aligning pagan persecution of Christian belief with divine retribution and a graphic assault on the senses: the emperor's body visibly wasted away, his cries of pain were the stuff of legend, the infection took hold of his innards, worms ate him up, and the stench of his rotting body filled the entire city. Immediately following this passage, Lactantius imagines Galerius finally giving way and accepting God, and his horrific experience is imagined as the catalyst for Galerius' Edict of Toleration toward the Christians, which was posted at Nicomedia on 30 April 311, shortly before the emperor finally succumbed to his illness. The rot attacking the state was represented most visibly, tangibly and redolently by the pagan emperor's rotting body. In Lactantius' account, the sensations it produced were far more than creative ecphrasis: they functioned as both measure and warning of a regime that required cleansing, correcting and re-ordering.[33]

Conclusion

"Papylus, your nose and your dong are both so long that when your dong grows, your nose knows".[34] Martial's short comic epigram caricaturing the same obscene Papylus whose breath was so bad it turned a jar of perfume into rotten fish paste (7.94) imagines him as a grotesque figure with a giant nose stretching out to meet his stinking phallus, a familiar pose drawn from comic imagery which generated a plethora of vase-paintings and figurines with face-protrusions that matched groin-protrusions.[35] But Martial's Papylus was more than just a grotesque spectacle: the nose that mirrored his cock drank up its own foul odours, conjuring up a host of associations with bestial stench, sexual obscenity and self-indulgent animalistic sniffing. Martial keeps Papylus' foul body at a safe distance:

33 In general on the diagnostic role of smell in Christian literature, see Harvey (2006).

34 Martial 6.36 (*mentula tam magna est, tantus tibi, Papyle, nasus, / ut possis, quotiens arrigis, olfacere*), with Grewing (1997: 256–61); wonderful translation by Elizabeth Duke.

35 See Clarke (2003), for example, p. 153.

the poet knows he stinks, and understands what that means, and his barbed satire warns his audience not to get too close. As so often with Martial, smelling is a last resort, the basest of instincts that detects danger and foul bodies better than any other sense, but one which itself runs the risk of contamination by inhaling the very vapours that are emitted by those bodies. Smelling, then, is an ambiguous sense. It tells you when something is wrong, and when dirt and danger are near, but it also brings out the animal in you. This chapter has dipped its toes tentatively into the world of Roman satire, comedy and invective, and explored some of the complex ways in which the Roman elite utilized olfaction to identify and evaluate bodies at the fringes of civilized Roman behaviour: these figures could be promiscuous perfumed women or passive homosexuals; they could be slaves or Roman low-life; or labourers engaged in sordid activities such as butchers, tanners or fullers; they might even be depraved emperors whose bodily emanations were telltale signs of their lifestyles and the corrupt regimes they governed. There were of course many other types of foul body in ancient Rome: the leaky female bodies of Roman medical literature (see Totelin, this volume); the monstrous bodies of Roman myth and fiction; dinner-table gluttons (see Potter for a "you-are-what-you-eat" approach to food smells); the diseased and the dead; and so on – for all of whom smell acted as a conduit between the inside and the outside, and for all of whom olfaction was a powerful detector of dirt and danger. For the Roman urban community, vigilant use of the senses was critical to the integrity of the community, and olfaction was well-placed to protect that integrity. A fragment of one of Varro's Menippean Satires called *Marcopolis*, which appears to have been a sustained parody of Plato's *Republic* written through the eyes of a cynic who had witnessed the downfall of the Roman Republic, observed that "The senses are the gates, the veins are the aqueducts, the sewer is the intestines (*sensus portae; uenae hydragogiae; clauaca intestini*)".[36] The idea of the human body as an analogy for the city is a very old one, but it is clear that the senses were envisaged as portals that monitored the relationship between the inside and the outside, that kept an eye, ear and nose on what entered and what existed, and which ensured that the innards – of the body and the community at large – were in proper working order.

36 Varro, *Saturarum Menippearum fragmenta* 290. On the idea of (the Roman) city as body, with head and guts, see Gowers (1995).

10

FRAGRANCE IN THE RABBINIC WORLD[1]

Deborah A. Green

Beginning in the second century CE and continuing throughout the Byzantine period, the rabbis in the Galilee, a northern region of ancient Palestine, sought to interpret their circumstance in light of their traditions, their sacred texts and changing political realities. But rabbinic elucidation and interpretation of the Hebrew Bible (Old Testament)[2] had to account for a fundamental discrepancy between the text and reality: that of the Israelite people as the presumed authority on earth as God's "chosen" people and the stark situation in which the Jews found themselves under Roman rule. To mitigate this disparity, the rabbis directed their interpretations towards a future time during which the divine election of Jews would be self-evident to all the world. In addition to these theological aspirations, the rabbis also tasked themselves with an already ancient Jewish tradition of reinterpreting the rituals, commandments and narratives found in the Hebrew Bible in order to make these vague and antiquated facets of the religion accessible and meaningful to themselves and, they hoped, to the wider Jewish community.

In order to attain these goals, the rabbis had to consider and account for the destruction of one of Judaism's main focal points: the Jerusalem Temple. This Temple, centrally located in Israel's ancient capital city, represented the centre of the world, an *axis mundi* between earth and heaven. Its destruction in 70 CE by the Roman empire meant cessation of a 500-year-old cult and the rituals associated with it: slaughter and sacrifice of animals, offering of grains, twice daily lighting of incense and lamps, and baking of bread, among others. Never again would Jews bring money to the Temple to buy animals for sacrifice. The cacophonous cooing and squawking of doves and pigeons and bleating of sheep was silenced. Pilgrims would no longer hear the priests play sacred instruments, chant sacred songs or recite communal prayers. None would see again the magnificence of the Temple compound with its massive walls and colonnaded halls; nor would anyone witness animals led to slaughter, the hundreds of people who gathered for festivals, or the constant stream of smoke that would wind its way up towards heaven. Along with the sights and sounds, so too did the odours of the Temple disappear: the odour of feathers, fur and the dung of live animals; the aroma of incense whose clouds

1 Abbreviations: b. Talmud Bavli (Bablyonian Talmud); m. Mishnah (see Albeck (1973)); t. Toesefta (see Lieberman (1994) and Zuckermandel (1970)); y. Talmud Yerushalmi (Jerusalem Talmud).

2 Although the Hebrew Bible is akin to the Old Testament in many ways, the number of texts, their order and their translation (Greek, Latin, Aramaic) vary according to theological differences.

filled the air with mystery, solemnity and exotic opacity; the thick smoke of burning entrails; the stench of blood dashed upon altars and draining out of animals. But the memory of this place would continue throughout every generation. This chapter takes some of the themes explored earlier in this volume (such as Clements on Greek sacred odours and Koloski-Ostrow on urban smells) and employs olfaction, and particularly that of pleasing aromas, as a lens through which to view how the rabbinic movement reinterpreted Judaism and the Hebrew Bible after the destruction of the Temple and during the rise of a Christian Roman empire.[3]

The destruction of the Temple and the devastation wrought on Israel and Jerusalem first by Vespasian and then by Titus during the Jewish Revolt did not mean the end of Judaism. Jews had experienced an upheaval of this magnitude before. In 586 BCE, the Jews witnessed the destruction of their First Temple at the hands of king Nebuchadnezzar of Babylonia. Then, too, the Jews experienced a long hiatus without sacrifice or other Temple rituals as most of the surviving population either emigrated to Egypt or was deported to Babylonia. At that time, the community in Babylonia remained intact as its leaders, priests and scribes committed to writing much of the sacred history, narratives, rituals and precepts. By the time of the destruction of the Second Temple, Jews had developed the community "assembly" or synagogue (προσευχή or συναγωγή), and these could be found throughout the Roman empire. From various references in Josephus, Philo, the New Testament and rabbinic discussion, we know of some of the activities that took place in the synagogue, but not all. It seems likely that people met to worship together (including the recitation and interpretation of scripture), to discuss important community issues and perhaps to educate the young.[4] While sacrifice was not performed in the synagogue, it is possible that other rituals associated with the Temple continued. The chanting or singing of Psalms or the recitation of other prayers that had been integral to the Temple cult might have continued under the direction of a priestly representative. And although the lighting of lamps and burning of incense were practical chores, it is also likely that in the sacred space of the assembly hall these items would have retained deep symbolic value.[5]

References to incense, unguents and perfumed oils appear in Jewish writings from the earliest biblical texts.[6] Incense was lit twice a day on a golden altar in the inner area of the Temple where only the priests could be present. Incense served to draw God down to earth through its pleasant scent and protected the priests from God's awesome and uncontrollable power. In this way it served to "soothe" or "calm" the deity. On the Day of Atonement, the high priest filled a censor with incense from the golden altar and brought it with him into the innermost sanctum of the Temple, the Holy of Holies. The incense cloud protected him from the effects of God's power and ensured that he did not

3 I want to thank Mark Bradley for including me in this project and opening up a dialogue on smell in the ancient world. This study is indebted to the work of several scholars who work on the senses and scent in particular, Corbin (1986); Miller (1997); Classen, Howes and Synnott (1994); Rindisbacher (1992); and Harvey (2006).

4 Two volumes discuss the history, cultural significance and archaeology of the synagogue in great detail: see Urman and Flesher (1998); and Levine (2000). The former contains translations of several articles that first appeared only in Hebrew.

5 Fine (1997:85).

6 For example, 2 Samuel 12:20; Psalms 45:9; Ruth 3:3.

see God's physical manifestation, for doing so would have killed the priest instantly.[7] Other aromatics mentioned in the Temple cult rituals are the frankincense thrown upon the grain offerings and the recipes for the holy incense and anointing oil. Olfaction and aroma are so important in the Temple rituals that every properly performed sacrifice is described as a "pleasing" or "soothing odour to the Lord" (Leviticus 1:9, 1:13, etc.). God does not need to eat or even smell sacrifices in order to live, as the Babylonian gods require.[8] Rather, humans communicate with God by lighting sacrifices. God responds by being pleased, soothed and coming down towards earth.

Jewish use of aromatics in the land of Israel predates the Roman period by at least 400 years. Further, the employment of perfume and incense was widespread and well known throughout the Near East before and during the Israelite period.[9] Incense altars have been found in Israel dating to the tenth century BCE.[10] The Bible describes its kings as having spices stored among their precious treasures and as being buried with spices.[11] Women and men anointed themselves with perfumed oil after bathing,[12] and God anointed his elect representatives on earth, the king and high priest, with perfumed oil. The term messiah – "the anointed one" – derives from the root "to anoint" (*m-sh-ḥ*) in Hebrew. Isaiah 11:3 describes the anointed one of God, the future king and judge of the world, who will be able to smell the truth rather than depend on what his eyes see or his ears hear. He will know truth by smelling, by breathing.

As Clements has already argued earlier in this volume, ritual is above all else sensual; that is, rituals employ the senses as their medium of expression. And as the rabbis, a small sect of pious men, dedicated themselves to inscribing each action and lived experience with sacred meaning and ritual, they had much in the way of sensual experience from which to draw – from the formal world of the Temple, from the text of the Bible, and from their own experience. By approximately 200 CE, the rabbis had compiled their first major legal corpus, the Mishnah.[13] Rabbinic tradition cites Judah, the Roman-appointed Patriarch, as the Mishnah's compiler and editor. Although the rabbinic texts present the Patriarch as a rabbi, it is unlikely that rabbinic Judaism was much more than a significant minority, if even that, at the time. Over the course of the next two hundred years, however, rabbinic Judaism would flourish despite the significant change in state religion that marked the early fourth century.[14] The rise of a Christian Roman empire in the early fourth century CE with the ascendancy of Constantine presented significant problems for the Jews in Palestine. The empire quickly enacted punitive legislation aimed at socially isolating Jews from Christians and hampering Jewish economic and social involvement in the empire.

7 Practices and issues surrounding priestly rites and incense are discussed at length in Haran (1960), Milgrom (1991: 1025–26), and Green (2011: 69–77).

8 Foster (1995: 75).

9 See Nielsen (1986) and Dayagi-Mendels (1991).

10 Barkay (1992: 326).

11 2 Kings 20:13; 2 Chronicles 16:14.

12 2 Samuel 12:20; Ruth 3:3; Esther 2:12–13.

13 Current scholarship points toward another legal corpus, the Tosefta, as possibly predating the Mishnah, thereby making the Mishnah the second legal corpus. The two texts, however, are quite similar in content and form.

14 On increased number and urbanization of the rabbis during these centuries, see Lapin (1999).

But the rise of a Christian Roman empire also brought about growth in Palestine's economy and population. The Galilee was now part of the "Holy Land", and therefore attractive to pilgrims as well as to the state in terms of building infrastructure such as roads and public buildings. As a result, by the fifth century, major and minor urban areas in Palestine boasted new synagogues. Many of these community buildings shared important iconographic images with churches; clear evidence not only of a thriving Jewish community but also of definite contact between Christians and Jews.[15] In addition, large *batei midrash* (rabbinic "study houses") began to form and gain stature in their respective communities, and rabbinic editors compiled major pieces of legal and interpretive literature. Among these is the Palestinian Talmud (or, Talmud Yerushalmi), which used the Mishnah as a base text and extended discussions of each law and regulation over the course of several generations of rabbis.[16]

These texts and others demonstrate that throughout the Roman empire, the rabbis had the same basic habits and lifestyle as their neighbours – even as they sought to establish Jewish identity over and against first a "pagan" Rome and then a Christian Rome. With respect to aromatics, the rabbis and their families used perfumed oil as a cleansing agent for their hands after dining and after using the privy.[17] They lit incense in the *triclinium* after meals.[18] They bought and sold aromatic spices in the marketplace, and their apothecaries regularly used scented herbs, woods, oils and incense for healing.[19] Similarly, like other Jews and Romans, the rabbis enjoyed going to the public baths, and there are several stories in the literature about rabbinic adventures (and misadventures) at the baths in Tiberias and Ḥammat Tiberias.[20] These stories mention the use of unguents and perfumed oils as well. Bathers would rub perfumed oil on their bodies and then scrape it off with a *strigil*, a metal scraper.[21] Those who wished to partake in a massage as part of their bathing experience, would retire to the *unctorium* to be oiled and rubbed.[22]

Perfume and incense also played vital roles in Jewish lifecycle events during the Roman period. Babies were oiled and then swaddled. Brides adorned themselves with perfume for the enjoyment of their husbands, and funds for the purchase of perfume were discussed in *ketubbot* (Jewish marriage contracts). Corpses were rubbed with scented oil as part of the preparation of the body before burial; incense was lit before the biers of the dead during the funeral march; and women, and possibly men as well, were buried with perfume in *unguentaria*, perfume bottles (see Figure 10.1 for a representative sample).

15 Fine (1999); Magness (2005).

16 Although a fixed date and place for redaction of the Talmud Yerushalmi is impossible to derive, it dates to approximately the fourth century CE and is thought to originate primarily in the city of Tiberias.

17 *y. Berakot* 6.6 (10d).

18 *m. Berakot* 6:6; *y. Berakot* 6.6, 10d; *b. Berakot* 43b.

19 *t. Berakot* 5:32.

20 Ḥammat Tiberias is a city just south of Tiberias. It was vacation destination spot in the ancient world, renowned for its therapeutic hot baths and natural springs. Large public baths in Tiberias and Sepphoris, two major Jewish cities during the Roman and late Roman periods, provide archaeological evidence of Jewish familiarty with the typical Roman bathhouse.

21 *m. Šabbat* 22:6; *b. Baba Batra* 53b (although the source is late, the reference is a *Baraita*; that is, considered to derive from the earliest stratum of the rabbis). See also Lieberman [1942] 1994:93–97.

22 *y. Ketubbot* 12:3 (35a); *y. Kil'ayim* 9:3 (32b).

Figure 10.1 Collection of glass bottles on display at The Corning Museum of Glass, Corning, New York. Courtesy of Steven Fine, Yeshiva University.

One of the major differences between the rabbis and other Romans was the need to make the quotidian sacred; that is, the rabbis sought to recognize every creation as God's handiwork and every experience of creation as a gift from God. Since the rabbis considered the sense of smell a gift, they created a blessing to thank God for the experience of pleasant aromas. If one walked by a fragrant tree, one said a blessing of appreciation. The blessing would change slightly with respect to different types or species of vegetation. Similarly, smelling musk, the fragrance of which comes from the glands of animals (e.g., deer), received its own special blessing.[23] The rabbis even discussed the phenomenon of "immunity" to odour. For example, they questioned what to do if one sits in a spice shop. Should one continually bless since the fragrance is continually in the air? The rabbis reasoned against this. They maintained that one should say a blessing each time one enters the shop. But if a person sits in the shop all day, he need only bless once.[24] From this line of reasoning, it is clear that the rabbis

23 The rabbis disagree on which scents receive which blessings. Rav Ḥisda asserts that one says a blessing for "spiced wood" over all fragrances except musk. Over musk, he argues that one should bless God for the "good smell of all kinds of spices" (*y. Berakot* 6:6, 10d; *b. Berakot* 43a–b).

24 *t. Berakot* 5:32. Women are only responsible for particular commandments, and this is not one of them so I have left the pronoun in the masculine.

understood a key aspect about olfaction; once we smell something, continued exposure does not necessarily facilitate continued experience (further on olfactory "habituation", see Morley and Bradley, this volume, pp. 118–19 and p. 141).

The rabbis also had strict laws regarding what activities could be done on the day of rest; that is, they sought to ensure that the Sabbath commanded by God in the Ten Commandments was, in fact, a day of rest and that no work could be enjoined on that day. A series of laws, therefore, governed what constitutes work and which activities were considered permissible. For example, the rubbing of oil was considered acceptable, but scraping with the *strigil* was not.[25] Going to the bath might be permissible but carrying clothing, ointment and other paraphernalia was not. Similarly, lighting a fire for the heated portion of the bath (the *caldarium*) was also forbidden. Because lighting any kind of fire was considered work, the incense regularly lit after meals could not be ignited on the Sabbath. One could, however, light incense before the Sabbath began (in the evening before sundown), stopper up the holes of a covered incense burner, and then pull out the stoppers after the meal.[26] A similar law existed for the fumigation of clothing. During the week, women fumigated their garments by lighting incense in a covered shovel-shaped vessel (probably hand-held and made from clay) with holes in the top and either waved the incense "shovel" or placed it under the clothing in order to fumigate the clothes (see Figures 10.2a and 10.2b). Similar to the incense used after meals, women were allowed to light the incense shovel before Sabbath began and leave the clothes on top of it or hanging above it.[27]

A more complex problem involved wearing perfumed oils, or carrying spices or other fragrant materials on the Sabbath. While one could carry items within his or her home (a circumscribed space), carrying things outside of the home could be construed as work. The rabbis endeavoured to define the types of space in which it was permissible to carry something (i.e., private as opposed to public) and how the space was enclosed or bounded. Was the space totally enclosed or only partially so? What material enclosed the area: a fence, a hedge, or a wall? How high was it? Could one see over it? All these factors needed to be taken into account when moving things on the Sabbath. With respect to perfume, one might reasonably ask why perfume precipitates discussion about "carrying" on the Sabbath. Unlike perfumed oil that was applied to the skin and worn for enjoyment or that which was applied at the bath and then scraped off, the Mishnah presents the case of women carrying spices outside the home in small perfume vials, sachets, brooches, crowns, beads or other jewellery that might have contained perfume.[28] Using terminology from the period of the Second Temple, Rabbi Meir finds these women liable for a "sin-offering", meaning that they have broken the commandment of

25 *m. Šabbat* 22:6; Lieberman (1994: 93–97).

26 *t. Betzah* 22b; Zuckermandel (1970).

27 *b. Šabbat* 18a.

28 *m. Šabbat* 6.3. In addition, *m. Šabbat* 9.6 holds that anyone who carries spices on the Sabbath is culpable. The term for perfume in the Mishnah is *philyaton*, which is usually considered to be "ointment" and therefore we expect some form of the word for "jar". However, with the term for "bottle" (*tsulbit*) appearing just before it, "perfume" seems to be the better translation. Albeck describes the women's jewellery as something like a "crown worn around the head", and a "bundle": Albeck (1959:31). Lieberman identifies this piece of jewellery as a bead probably made from some kind of peeled (or thin) shell, such as tortoise shell, that may have been worn between the eyes: Lieberman (1992:67).

Figure 10.2a Rectangular ceramic incense shovel from Sepphoris, Middle Roman period. With permission from the Joint Sepphoris Project, Eric and Carol Meyers.

abstaining from work on the Sabbath. Other anonymous rabbis allow some of these items. In the Babylonian Talmud (albeit a much later document than the Mishnah), Rabbi Eliezer indicates some cases in which women are allowed to "carry" perfume in these little containers. He argues that women who use these types of jewellery need to wear perfume in this way to mask a foul odour. They are not adorning themselves with jewellery; rather, this is the manner of their regular dress. As such, it is unlikely that they will take off the jewellery and lay it down or show it to a friend, thereby breaking the rules regarding "carrying" on the Sabbath.[29]

The end of the Sabbath involved particular rituals known as *havdalah*, meaning "division" or "distinction". Through performance of these rituals and prayers, Jews concluded the Sabbath and marked the beginning of their regular work week. The Mishnah records that the *havdalah* blessings were closely connected to the afternoon or evening meal at the end of the Sabbath day. They were also tied, therefore, to other end-of-meal practices and blessings. These included blessings for the meal itself, for incense lit at the end of the meal, and for lights or wine that might be brought out and enjoyed after conclusion of the meal. In the first centuries CE, the two main schools of rabbis, those of Hillel and Shammai, disagreed on the order of these blessings. Both groups agreed that the blessings over the lights should be said first, and those for *havdalah* should be said last.[30] The followers of Shammai would say the blessing over the food and the spices next, while Hillel's adherents would bless the spices and then

29 *b. Šabbat* 62a–b.

30 Technically, once the lamps were lit, the Sabbath was over because ignition of fire had taken place.

Figure 10.2b Oval-shaped ceramic incense shovel from Sepphoris, Middle Roman period. With permission from the Joint Sepphoris Project, Eric and Carol Meyers.

the food.[31] At some point, however, it appears that rabbis began to say the blessings for the meal first and then continued to disagree about whether they should say a blessing for the light or the spices next. The Tosefta, another book of Jewish law that approximates the Mishnah in style and date, presents Rabbi Judah as saying that, after the blessings for the meal, the house of Shammai argued for the blessing of the lights first and for the blessing of the spices afterwards, while the house of Hillel argued the opposite.[32] In any case, the blessings for the spices that followed this meal seem to be less associated with the meal over time and more closely linked to *havdalah*. While we do not know when Jews stopped lighting incense after this meal, we do know that by the Medieval period, Jews sniffed spices from a special container as part of their *havdalah* rituals.[33] Even today, as part of the *havdalah* ceremony, Jews light a special candle, drink wine and sniff aromatic spices or herbs from a container designed for the purpose (i.e., covered but with holes so that the fragrance may escape).[34] A blessing accompanies

31 *m. Berakot* 8:5.

32 *t. Berakot* 5:30.

33 The Mishnah records that, in general, practice follows the house of Hillel, while the stricter, "more correct" interpretation of the laws follows Shammai. If this were to hold true in the case of the Tosefta, it might explain how the incense ceases to be lit over time. Lighting of the lamps that indicates the beginning of the Sabbath would also indicate the end. If the blessing for the spices occurred before the lighting of the lamps at the end of the Sabbath, the spices could not be lit either. Hence, the blessing for the spices would be said without the spices being lit.

34 Evidence of Jewish spice boxes date back to the tenth century CE (M. Narkiss 1981).

each ritual as well. The sniffing and passing of the spice box as well as the blessing for its pleasing aroma is the only specific scent custom that remains in Judaism today.

So far we have examined rabbinic religious and cultural practices and the legal texts that governed them. We have noted that, for the most part, the rabbis were like others in the Roman empire, enjoying olfactory stimulation in a variety of ways. But we also noted that the rabbis legislated the use and experience of fragrance in accordance with their own ethnic-religious mores, perceptions and traditions. Those perceptions included rabbinic opinions and teachings that were highly critical of Romans as an idolatrous, hedonist and imperialistic people – presumably before and after the rise of Christianity.[35] The rabbis considered blessing the incense or spices used for "idolatry" to be a grave sin. One story cites the cause of one rabbi becoming a heretic as the result of his mother walking by a temple during pregnancy and smelling the incense.[36] The rabbis forbid their young students to go into public perfumed because this would be in accord with "Roman" practice, which was viewed as overly effeminate (itself a stereotype deriving from Roman satirical literature: see Bradley and Toner, this volume, pp. 138–39 and 161–65). The rabbis show discomfort and even fear for their young male students who will attract older dissolute men.

The contrast between Israelites and Romans, as perceived by the rabbis, comes to the fore in rabbinic interpretation. Often the interpretations identify Rome with Esau, Jacob's murderous twin brother from the book of Genesis. In the narrative about their youth, Jacob colludes with his mother, Rachel, in order to steal the blessing of the first-born son from Esau. Esau's position in the birth order entitles him to inherit his father's fortune. But many years before the birth of the twins, we learn that God has foretold to Rachel that "two nations are in your womb … the older [or the great] shall serve the younger" (Genesis 25:23); hence her subterfuge in gaining the blessing for Jacob so many years later. Of note, it is the blind Isaac's keen sense of smell that tricks him into blessing the wrong son. Jacob comes to his father Isaac dressed in animal skins. His father comments that the voice and the hands seem to be Jacob's, but the scent is of his son Esau. The blessing itself also begins with a synesthetic moment: "See, the scent of my son is like the scent of the fields that the Lord has blessed" (Genesis 27:27). Thereafter Esau becomes associated with the Edomite people, while Jacob, who wrestles with an angel, is renamed "Israel" and considered one of the patriarchs of the Israelites. The rabbinic voices highlight the aromatic aspects in the interpretation of Jacob's blessing. Rabbi Yoḥanan argues that Jacob would have smelled awful wearing the animal skins because these come from tanneries which smell so terrible they are placed downwind at the outskirts of cities. So, the voices ask, how is it that Isaac was able to bless Jacob? The interpreters respond that when Jacob entered Isaac's tent, the scent of Eden came with him and it was, "the scent of the field that the Lord has blessed".[37] In another form of this interpretation, when Esau arrives in his father's tent after the blessing, he comes with the smell of a hot oven – namely hell.[38]

35 For more discussion on Rome's obsession with aroma, see Toner, this volume.

36 *Ruth Rabbah* 6.

37 *Genesis Rabbah* 65:22.

38 See Toner, this volume, for a discussion on good and evil smells and the reversal of meaning in Christianity. See also Howes (1991).

Related to the Esau–Jacob, Rome–Israel formula, we find the rabbinic interpretive texts rife with examples of a rabbinic theology in which God redeems the Jewish people and punishes Rome. Either in this life or in the next, righteous Jews would be vindicated – sometimes on an individual basis but more often as a group. The "next life" or the "world to come", was not necessarily an existence or place that one went to immediately upon death. Rather, this unsystematic theology espoused a future time of a utopian nature when the righteous would live freely. Rabbinic interpretation, or *Midrash*, would often express this desire in terms of sacrifice or death of the righteous which, in turn, would bring about the redemption of the Jews. In some cases the texts hearken back the language of Leviticus, wherein sacrifices are described as a "soothing" or "pleasing odour for the Lord". In rabbinic interpretation, God sniffs this fragrance and becomes immanent in the world.

In the example below, the interpretation is built on a verse from Song of Songs (Song of Solomon), "A lily among the thorns, so is my companion among the daughters" (Song 2:2). In the Song itself, the speaker is a male lover who compares the beauty of his beloved to a lily. When the rabbis seek to interpret the Song, they regularly assign God as the male speaker and Israel, or the Jews, as the beloved. In the midrash below, the comparison of Israel to the lily among the thorns is sustained and held in tension with her identification as the beloved:[39]

> Rabbi Abun said, Just as dry heat from the sun beats upon the lily and it withers, but when the dew falls, it blooms. So too as long as the shadow of Esau endures, as if it were possible, Israel appears withered in this world. But [when] the shadow of Esau passes, Israel thrives and goes, as it is written, *I will be as the dew to Israel; he shall blossom as the lily* (Hosea 14:6).
>
> Just as the lily ceases forever together with (or because of) its scent, so Israel perishes together with commandments and good deeds. Just as the lily is only for fragrance, so the righteous are created only for the redemption of Israel. Just as the lily is placed on the table of kings at the beginning and at the end [of the meal], so [is] Israel whether in this world or in the next world. Just as the lily is recognized [or favoured] among plants, so Israel is recognized among the nations of the world. As it is said, "All who see them will know them [because they are a seed the Lord has blessed]" (Isaiah 61:9). Just as the lily is prepared for Sabbaths and festivals, so Israel are prepared for a redemption tomorrow.[40]

In the first part of this interpretation, Rabbi Abun compares Israel's situation under Rome (Esau) to the withered lily that will thrive in the future. In the second portion of the midrash, Israel and the righteous are compared on many levels to different aspects of the lily. The formulaic construction employed to accomplish this series of comparisons is, "Just as … so".

The supposition that Israel is the favoured possession of God in comparison to the other nations is depicted in Rabbi Abun's response to the verse, "Like a lily among the thorns, so is my companion among the daughters". As the lily, Israel is in her withered

39 The entire midrashic cycle for this verse is also found in *Leviticus Rabbah* 23:1–6.
40 *Songs Rabbah* 2:2.

state when Rome (the thorns, now overlaid with the metaphor of Esau) is in power. Her predicament though, is temporary, for in the future, when Rome no longer holds power over Israel, then she will bloom. However, the metaphor becomes mixed. The initial image of Esau as the sun or dry wind that causes the flower, Israel, to wither is supplanted by the image of Esau's "shadow" passing – as if the dark climate caused by Esau's shadow of power blocks Israel's sunlight and freedom, stunting her growth and preventing her from blossoming.[41]

The second segment of the midrash introduces a comparison of the lily and its aroma to Israel and its "commandments" (*mitzvot*) and "good deeds" (*ma'asim tovim*). The syntax allows for several interpretive possibilities. The most obvious reading would be that when the lily dies, its fragrance also dies. Similarly, when Israel ceases to exist or is destroyed, so too her commandments and good deeds are gone forever. However, another assessment, in better accord with the rest of the piece, is more probable; that is, the lily dies "because of" or "by means of" (*'al gav*) its pleasant odour. In other words, because of its pleasant fragrance, the lily is picked and therefore dies. Likewise, Israel dies because she follows the commandments and performs good deeds. Highly suggestive of martyrdom, Israel and her adherents forfeit their lives because of their commitment to God.[42] The reading that Israel, the fragrant flower, is plucked by God because of her aroma, resonates with the ensuing sentences. The sole purpose of the lily in the world is to create a "pleasing odour". This becomes the metaphor for those of Israel who perform commandments and good deeds: the righteous. The only reason for their "creation" (*bara'*)[43] is to bring about redemption for Israel by means of their death (i.e., they "cease to exist").

The subsequent lines continue to build on the themes of election, death and redemption and to form bridges back to the biblical text as well as to everyday life. For example, the lily, placed on the table at the beginning and end of a meal, could represent a bouquet of flowers, but more likely refers both to incense and to sacrifice. The reference to the "table of kings" alludes to the table of God (either the altar or God's table in heaven) and to the wealth of kings. The image of Israel placed on the table of the king in this world and the next is highly suggestive of sacrifice upon the altar, death and rebirth, and Israel's current situation and her future glory in the time of the messiah. In the line that follows, just as the lily is recognized among the plants of the garden, Israel's unique features and position among the nations is demonstrated. Like the lily and incense, she is exotic, different from all other nations. Similarly, the sense of Israel's exclusivity may be inferred, particularly with reference to her future redemption, which is explicitly stated, as she is "prepared for tomorrow's redemption" like the lily or incense is prepared for Sabbath and festivals.[44]

Rabbinic Judaism grew out of the rabbinic desire to infuse every aspect of daily life with sanctification. Unlike early Christians, the rabbis viewed "the world to come" – a term they variously used to mean heaven, the occasion when the messiah would arrive to

41 The shadow (*tsel*) image is a pun drawn from a word in the previous verse (Song 2:1): *ḥavatseleth*, which describes an asphonel, crocus or narcissus.

42 See also Green (2011: chapter 5).

43 In the Hebrew Bible, this term for "creation" appears only in reference to God's acts of creation.

44 This reading parallels to some degree Paul's intention in 2 Corinthians 2:14–16. In accord with Toner, who sees in Paul's words that followers of Christ spread his aroma, I believe that the "pleasing aroma of Christ" is his sacrifice on the cross. He is not burned but the suffering and decay of his body while on the cross serves as a sacrifice that goes up to heaven as a "pleasing odour" for God.

rule on earth, or some period after the messiah's coming – as being in the distant future. Although one could hope that "the world to come" was imminent, in the meantime the Covenant that God gave to Israel and that Israel accepted on Mount Sinai was designed for the living and needed to be followed for all time, no matter what events should transpire. The Israelites, and thus every Jew, had agreed to keep the Covenant, but its laws, as found in Exodus and Leviticus, were opaque. They required interpretation, and the rabbis viewed both the Covenant and their constant interpretation of it as the keys to Jewish survival and the means by which Jews would continue to be God's favourite and chosen people. With respect to Rome, the aftermath of the Jewish revolts and the rise of a Christian Roman empire, the obvious discontinuity between scripture's prophecy and day-to-day reality meant that the rabbis interpreted adherence to the Covenant as the necessary and only means by which eventual redemption could take place. But just as the Covenant's purpose was to affirm the special relationship between Israel and God, and to recognize God's divinity and role in creation and in every aspect of life, practice of the Law and keeping the commandments, the central tenant of Judaism, was also the means by which the Jews were singled out and persecuted by a despotic government. The rabbis understood that they were martyred for, and because of, their love of God. As such, the Covenant was both a shield against Rome and a sword in her hand.

But why do so many of the texts that explore the dualistic theological claims of Jewish superiority and victimization do so through scent images? The most obvious answer takes us back to the Bible. The primary form of communication with God as described in the Hebrew Bible was through sacrifice. Each properly performed sacrifice is described as a "soothing odour before the Lord". Not only does God sniff the sacrifices and become appeased, his representative on earth, the messiah, is such a person *because* he is anointed with perfumed oil; that is, the very meaning of the word "messiah" (*mashiaḥ*) is "anointed one". Further, this special word for "anointing" (*mashaḥ*) is used only in connection with God's elect: the King or the High Priest. All other types of anointing with perfumed oil use a different verb (*sukh*). When Rome appeared on Israel's landscape in 63 BCE, and her Temple was still standing, Jews had already been steeped in scented oils, ointments, and incense for hundreds of years. They used them in rituals in their Temple, they used them in anointing after bathing, and they used them for sheer enjoyment. After 70 CE, the Temple no longer existed and with its destruction, so too most of its rituals went into hiatus. Jews continued in their everyday employment of incense and perfume but the days of sacrifice were over – at least for the foreseeable future. Now sacrifice took on new meaning. Like their Christian counterparts, Jews perceived suffering and martyrdom as redemptive acts. For Christians, this redemption was personal; for Jews, sacrifice of one righteous person should serve as a "soothing odour" in order to redeem all. And, just as the mundane was appreciated as sacred, it could also be called upon to represent the sacred. As such, the simple act of lighting and smelling incense at the end of a meal could both be used in ritual and to represent the most sublime of theological conceptions: A lily on the tables of kings.

11

SMELL AND CHRISTIANITY

Jerry Toner

Christians and the senses

Ancient Christianity is often thought of as being an otherworldly, unphysical religion. The early Christians certainly seem to have shown little interest in the theological possibilities of smell. This was despite having its roots in the Jewish tradition, which, as Deborah Green has demonstrated so well in the previous chapter, was steeped in scented oils, ointments and incense. It was also despite, and partly because of, the fact that the early Christians lived in a Roman world which placed great emphasis on the use of the senses to express all kinds of religious meaning. But during the life of the Roman empire, this new religion developed its own way of using the senses, and acquired its own particular set of odour-related symbolism. Whether it was in the increasing use of scents as part of their rituals and processions, the foul stench cultivated by ascetic holy men in the later Roman empire, or the imagined fragrance of the afterlife, smell came to sit at the heart of how Christians defined themselves and the structure of their communities. This process was slow and often contested. The aim of this chapter is to provide an overview of the important role that smell played in Christian religion as it expanded and developed within the Roman world, developing and extending the fine work of Susan Harvey in this area in order to focus more on the place of smell in popular Christianity and as a site of cultural conflict.[1]

In reality, the early Christians had always had an important relationship with the physical. As a small, marginal and largely ignored religious group they had sought to differentiate themselves from the religious milieu in which they lived by adopting an alternative olfactory vocabulary. The removal of odours was believed to play a defining role in the initial baptism that a new Christian underwent. Clean, odourless water served to wash away the smell of sin from the defiled body of the convert. This was a group that in the first decades after Jesus' execution had its eyes and noses turned more towards the sights and sweet fragrances of the Second Coming than on using earthly smells to help them move closer to God. Such an attitude differed sharply from that of the rabbinic Jews of the previous chapter, who saw the Messiah's coming as long distant and so engaged more fully with the sensory world they inhabited. It is, therefore, in Christian apocalyptic literature, which looked forward to Judgement Day, that we find a far greater focus on the senses. Images of heaven and hell contained vivid details of the

1 The best detailed analyses of the relationship between Christianity and smell are Harvey (2006), Caseau (1994) and Classen (1998). An updated version of this last paper is to be found in Drobnick (2006). See also Harvey (2014).

strong odours that would be found there. As the opening of the Revelation of St John the Theologian describes, the heavens opened and "there came forth from within a smell of perfume of much sweet odour".

Such early isolation from the more sensual society that surrounded them meant that early Christian rituals and descriptions of them seem baldly austere in comparison with Roman religious practices. But once Christ's return to earth had come to be seen as a less pressing concern, Christianity began to reach out to the world around it. Roman religion stood on two pillars of belief concerning smell and the divine. The first was that certain fragrances acted as an indicator of supernatural presence. The second was that incense was an inherent part of the act of sacrifice. It was these two ideas which were to influence the course of a specifically Christian olfactory culture.[2]

Smell and the divine

Sacrifice in Roman religion served as the highway between the human and divine. It could take many different forms: large-scale imperial festivals, local civic processions and private acts of devotion within the home all habitually used the aroma of incense to initiate contact with the gods. The gods themselves were thought to relish the sweet scents of incense, garlands and burnt offerings that snaked up towards them from human sacrificial acts. Carved ivory boxes were sometimes used to carry the incense (see Figure 11.1). The early Christians had refused to partake in such sacrifice, even if it only entailed the burning of incense. When Pliny the Younger, as governor of Bithynia, executed a number of Christians in the early second century CE, one of the grounds for condemning them was this refusal to offer incense to the Roman gods. Those who gave in to Roman threats and torture and did make such sacrifice were dismissively known by other Christians as "incense-burners".[3]

The notion that divine presence resulted in the emanation of a sweet smell was far easier for the Christian community to accept. In part, this may have been on account of the ethereal qualities of smell. Less physical than the other senses, it made it easier for Christians to share a belief in a hierarchy of divine odour. The fact that the Christians shared with the pagans a belief in divine omnipresence throughout the physical universe also meant that it seemed natural to assume that this presence would be actively ascertainable by some sensory means. Smell offered a way to gain access to God, a contact that would be expected to take a strongly physical form. It was also not surprising if some of this divine scent rubbed off on those individuals who had been fortunate enough to experience God directly. Written in the 50s CE, Paul's Second Letter to the Corinthians describes Christians as "the pleasing aroma of Christ among those who are being saved". They become God's vehicle "to spread the aroma of the knowledge of him everywhere".[4] To smell God, therefore, was to smell of God.

Divine odour gave a hint of the far greater divine reality that lay behind it. So it seemed reasonable to both Christians and pagans alike to think of smell as something that could reveal the inner truth of things. It was, perhaps, its invisibility that allowed

2 See Clements, this volume, on divine fragrances and incense in Classical Greece.
3 See Pliny, *Letters* 10.96. On the *turificati*, see Caseau (1994: 92–98).
4 Paul, 2 *Corinthians* 2:14–16.

Figure 11.1 Fifth-century ivory incense box decorated with Hermes awarding the apple to Aphrodite. Height: 8.5 cm (3.3 in.). Diameter: 9.1 cm (3.6 in.). Walters Art Museum, inv. 71.64. Photo: Wikimedia Commons.

smell to emanate from the core of a being's essence. Smell, therefore, came to be associated with knowledge of both God and the soul within the believer's body. The soul shared some of the ethereal qualities of smell and, as the part of the individual that itself had divine properties, it gave off some of the same fragrance as God. The belief that God smelled good also reflected a wider moral osmology. Everything was deemed to have its own particular smell, reflecting its place in the moral order. Demons and immorality revealed their foul nature through their own particular vile stench. As Paul had noted in his Second Letter to the Corinthians, the Christians brought the pleasing aroma of Christ not only to those who were being saved, but also "among those who are perishing". To the godless, it was a smell that brought only death.

Smell and Christian identity

Smell, therefore, played a critical role in helping Christians to evaluate the moral qualities of individuals, acts and spaces. It served as a simple tool for judging the social and physical environment in which the Christian found him or herself. This was particularly true on account of the close association that existed in the ancient world between human sexual behaviour and smell (see Butler and Bradley, this volume). Perfume and desire, immoral sex acts and stench were thought of as natural bed-fellows. This moral aspect to smell was of vital importance because it was believed that the senses could act as entrances to the individual's inner being, the senses being likened to the five gates of a city. In this way, the senses could admit spiritual qualities into the body, which could have a palpable moral effect. The senses could then become a potent weapon to entice people away from righteousness.

It is hard for us to appreciate the moral danger that Christians felt surrounded them. The air itself was thought to be full of demons. Athanasius' account of the life of the first monk, Saint Antony, has almost a quarter of its length devoted to a discourse on demonology: "Great is the number of them in the air around us", it warns. It was widely believed that evil spirits roamed the atmosphere, having been cast out from heaven. These demons employed a host of sensory tactics to try to disorientate the believer and drive him or her from the path of truth. They might appear shooting fire from their mouths, and with smoke pouring from their nostrils. Demons were thought to emit a nauseating stench of such a kind that only their evil natures could produce. Simply breathing in the air posed moral risks, given that demons could easily enter through any human orifice. Antony himself was astonished at how many "loathsome and terrible beings" the Christian has to battle against and "what labours a person has to perform to pass through the air". He recalls the Bible's warning that the source of Satan's power lies in the air. The Life of Daniel the Stylite records that when a demon was exorcized from a victim, "he created such a stench that all the crowds present could not endure it and had to cover their noses". To counteract so foul a force, the holy man appropriately commanded the victim to drink scented oil that had been in contact with the saints.[5]

Smell played an important role in helping Christians to define what they were not. By adding new forms of moral associations to certain odours, Christians were able to differentiate themselves from the pre-existing religions they sought to replace. Through senses such as smell, therefore, Christians sought to establish a new sensory order, which replaced these immoral odours that could threaten the soul itself. The Christian community lived in a competitive religious marketplace and smell provided a weapon for religious polemicists to use against their opponents. Rome became a place which could stink of luxury and vice, whose lack of true religious belief was thought to be reflected in its lack of any properly holy odour. Smell, therefore, provided a means for those who wished to express strong dissent from the den of vice in which they considered themselves to be living.

We find this olfactory hostility best exhibited in accounts of Christian martyr acts and apocalyptic literature. Apocalyptic literature used a moral osmology to reveal the inner corruption of Roman society. Such literature looked forward to a time when Rome's

5 Athanasius, *Life of St. Antony* 21, 24, 65, referring to *Ephesians* 2.2; *Life of St. Daniel Stylites* 33.

temporal power would be replaced by the spiritual rule of God, a switch that would bring vengeance and justice to the oppressed. The "unclean" city of Rome was often linked with the foul and corrupt body of the prostitute, as in the biblical identification of the whore of Babylon with Rome.[6] Some radical Christians went out of their way to become martyrs in a full-scale assault on Roman norms and authority. Tertullian uses an olfactory comparison to contrast the prison in which one group of such martyrs found themselves and what he saw as their moral worth: the prison "breathes forth a foul smell, but you are an odour of sweetness".[7]

Once such martyrs had been sent to the arena to face death, accounts of their wondrous scents highlight the proximity to God that their suffering was establishing. The story of the Martyrs of Lyons tells how, as the martyrs were led to their death, they advanced joyously, "exhaling at the same time the sweet odour of Christ, so that some thought they had anointed themselves with a perfume of this world". Whipped and then mauled by wild animals, they were placed in a red-hot iron seat, "from which their roasted flesh filled the audience with its savour". Similarly, the account of the martyrdom of Polycarp in 155 CE, recounts that when the Romans tried to burn the saint by laying him on logs and brushwood collected by the mob from nearby baths and workshops, the flames bellied out "like a ship's sail in the wind", and surrounded the martyr's body "as with a wall". Polycarp remained within this fire-wall, not burning but rather "as bread being baked", giving off a delightful smell "as though it were smoking incense or some other costly perfume".[8] The burning or roasting martyr became a personal incense offering whose holy fragrance filled the air. These accounts clearly set out deliberately to invert Roman sensory codes to underline what they saw as the martyrs' spiritual integrity in comparison with the decadence of Rome. The purpose of such texts was, through their repeated retelling and rereading, to create a group united in opposition to the Roman state.

We need to be careful, though, of seeing every Christian living in the Roman empire before Constantine's conversion as a would-be martyr. The apocalyptic texts of early Christianity are rare. Christians like Tertullian wrote in glowing terms about the quality of life under Roman rule. The world, he says, is obviously becoming better cultivated and more fully populated. Commerce is thriving, and "everywhere are houses, and inhabitants, and settled government, and civilized life". The fairly clear-cut division between Roman and Christian cultures that we have seen so far also becomes far harder to discern when we look at the daily acts of lived religion on the ground. Much of what might be termed "popular Christianity" seems to have shared Tertullian's far more relaxed attitude towards Roman religious practices than accounts of Martyr acts would have us believe.

Tertullian, for example, claims that Christians did not use incense in their prayers and religious observances: "we certainly don't buy incense", nor did they use it for "fumigating gods". Yet in the same passage he accepts that Christians did lavish money on

6 *Revelation* 2:13; 6:9–10; 12–18; 19:2; for anti-Roman apocalyptic see also *Sibylline Oracles* 5.386–433; 5.155–78; 3.356.

7 Tertullian, *To the Martyrs* 2.4.

8 *The Martyrs of Lyons* 35, 38; *The Martyrdom of St. Polycarp* 15, in Musurillo (1972).

purchasing incense for burial rituals.[9] This popular association between traditional scents and Christianity is also reflected in the near universal exegesis of the gifts of the Magi who visited Jesus at his birth: gold represented Christ's kingship, frankincense his divinity, and myrrh his humanity.[10] This popular theology linked many olfactory references in scripture and legend to create a distinctively aromatic version of Christian history.[11] The perfume with which Mary Magdalene anointed Jesus' feet represented Humanity's homage to the Son of God. Christ himself was buried with aromatic spices which served to symbolize his divine immortality. Smell, therefore, established a moral shorthand in popular Christian thought between the two poles of divine fragrance and the sulphurous stench of the Devil. Such olfactory images established what Classen calls, "a rosary of spiritual reminders".[12]

Jesus' humanity placed a special emphasis on the role of the body in Christian thought. The ability of smell to capture something of both the physical body and the divine essence within meant that it played an important part in popular understanding. This role was magnified by the greater importance of smell in the lives of the general populace than the more visually-driven elite.[13] The use of fragrances and perfumes therefore helped to define all spatial areas of everyday religious experience, whether in the household, the tomb or the moving procession. The *rites de passage* of Christian life also came to be accompanied by smells. Aromatic oils were employed during the most significant transitional moments in life, such as birth, marriage, sickness and death. Smell helped in this way to construct a temporal structure for the Christian life, marking out the passing of time on the journey towards the afterlife. These odours acted as constant reminders of the importance and proximity of God to Christians as they went about their daily business. They helped to add religious significance to even the most mundane task.

Not all of these sensory acts were strictly or purely Christian. The wearing of pungent amulets to help ward off evil spirits smacked of magic. Funerary feasts held in the Christian catacombs, which were often represented in wall-paintings, when the deceased were remembered in toasts of wine and the rich smells of roast foods filled the otherwise damp underground caves, were reminiscent of pagan funerary rites. What these practices show is that the daily acts of Christian life did not reflect the austere purity to be found in many of the texts of the early Church Fathers. Rather they show ordinary people adopting and adapting pre-existing practices as suited them. It would be wrong to see them as either superstitious or in some sense less religious than the solemn rituals held within the context of the Church itself. Defining the sacred as otherworldly and uninterested in daily life was always an elite act. For most Christians, by contrast, the sacred and the mundane were inextricably interlinked, a belief they expressed in such simple acts as thanking God before eating and praising Him for fine weather.

The use of smell in everyday Christian ritual reflected a contest between ecclesiastically authorized and unauthorized religious activity. We should not assume that the

9 Tertullian, *Apologeticus* 42.7.
10 For example, Irenaeus, *Against Heresies* 3.9.
11 Drobnick (2006: 387).
12 Classen (1998: 3).
13 See Toner (2009: 123–61).

power of early Church writers to establish hard and fast boundaries between the Christian and the pagan was an actual reflection of daily religious life. There was no single Christian view of the importance, or role, of smell. Indeed, it is possible to see writers such as Tertullian as responding to this messier reality. Common practices, such as interfaith marriage between Christian and pagan partners, made it impossible for many Christians to maintain rigid boundaries and live in isolation from the surrounding Roman culture. Restraint, rather than rejection, came to be portrayed as the key to living a Christian life within a non-Christian environment. Writers such as Tertullian, Clement of Alexandria and Origen all insisted that Christians must accept the physical world and seek to understand and know God better by means of sensory experiences. God, they argued, had created the senses as part of the material world. It was only if a Christian were to become bound by the senses that he or she would end up their slave.

We have seen that senses such as smell were thought to pose a moral risk to Christians, in that they could enter and corrupt the body via temptation and entice the soul away from the path of life. But in the same way that smell was employed positively in medical usage to cure the sick body (further, see Totelin, this volume), so now it was argued that the sense should not automatically be seen as being harmful in theological thinking. Clement's *Christ the Educator*, for example, written in the late second century CE, gives guidance to the lay Christian on how to cope with the olfactory temptations presented by living in a pagan world, and sets down limits on active Christian engagement with the sensory world. Discussing Christian behaviour at a feast, Clement quotes Paul's warning that "it is good not to eat meat and not to drink wine".[14] Eating and drinking, he argues, is the occupation of animals, and the fumes rising from them, "heavy and earth-laden, cast a shadow over the soul". It is utterly inane, he says, to keep leaning forward from one's couch, all but falling on one's nose into the dishes, as though trying to "catch the escaping vapours with the nostrils". Indeed, the devil of gluttony leads feasters by the nose. But Clement acknowledges that to partake of the foods on offer at a feast is not in itself a sin: but the Christian must "partake temperately".[15]

Similarly, Clement warns that the use of wreathes and of perfumes is not a necessity for Christians: "rather, it shipwrecks us upon pleasure and frivolity".[16] Some people, he says, have an insatiable desire for sweet fragrances, of which there is "an unlimited variety". Day after day, these people plan ways of procuring them, notably the kind of women "who always exude extreme vulgarity". These women "keep scenting and sprinkling their bed covers and their house, and, in their daintiness, stop short only of making their chamber-pots fragrant with myrrh". This is unacceptable in Clement's eyes because garments and cosmetics that betray artificiality should not be allowed entry "into a city of truth". Instead, the Christian life should be redolent, not of perfume, but of perfection. Women especially should be fragrant with the odour of Christ, the royal chrism, not that of "powders and perfumes". "Let her", Clement says, "be ever anointed with the heavenly oil of chastity". And, taking the olfactory symbolism further, he urges that the Christian woman should "delight in holy myrrh, that is, the Spirit. Christ provides this oil of good odour for His followers, compounding His myrrh from sweet heavenly herbs".

14 Clement, *Christ the Educator* 2.1.11–15, quoting Paul, *Romans* 14:21.
15 On pre-Christian Roman dining, see Potter, this volume.
16 Clement, *Christ the Educator* 2.8.61–76.

Smell provided Clement with other useful symbolism to expand on details of the meaning of Jesus' life. Acknowledging that the gospels record that Jesus had been pleased when a woman had brought perfume in an alabaster box and anointed his feet, Clement begins by arguing that, since she was a pagan, she was simply paying him what she thought was the highest possible honour. He then explains that this act of anointment may be seen as a symbol of the Lord's teaching and of His suffering. "The anointing of His feet with sweet-smelling myrrh", he says, "suggests the divine teaching whose good odour and fame has spread to the ends of the earth … those anointed feet … are the apostles, the sweet odour of the myrrh prefiguring their reception of the Holy Spirit". The rich metaphorical possibilities offered by smell mean that Clement goes on to give an alternative interpretation: "Or the oil is the Lord himself, from whom we receive mercy [in the Greek world, oil was a common symbol of mercy], the myrrh, which is diluted oil, is the traitor Judas, because, when the Lord was departing from life in this world, He was anointed with myrrh, as the dead are".

Christians, Clement concludes, should not "develop a fear of perfume". They should simply use it sparingly: "let the women make use of a little of these perfumes, but not so much as to nauseate their husbands, for too much fragrance suggests a funeral, not married life". In fact, he sees that scented oil performs many useful functions, such as strengthening men and preparing them for struggle, "for when timid men are rubbed down with oil they become ready for any sort of contest in the stadium". Oil is also needed for softening the skin, relaxing the muscles and removing the offensive odours of the body. It is only the constant use of it that speaks of pampering and "pampering arouses lustful desires". Smell, he asserts, must be indulged because otherwise "we may reopen the doors of the soul … to the very dissipation we had put to flight". For the man without self-control is easily led about by anything sensual. And just as cattle are led by rings though their noses and by ropes, so, too, the self-indulgent are "led by odours and perfumes and sweet scents rising from their wreathes".

Clement calls for a utilitarian approach to smell: let us chose "only what is useful". The Christian should ignore perfumes that are soporific or erotic, or are suggestive of sexual relations and immodest harlotry. Instead, they should use myrrh to stimulate failing powers, and ailments such as catarrh, chills and indisposition. If there is no purpose to the use of scent then it represents sensual luxury, which would excite the passions and render the man soft: "there is all the difference in the world between rubbing oil on oneself and scenting oneself with it". One is beneficial. The other "makes a man effeminate". Once such an approach is taken, moreover, smell can help the Christian recognize those who are truly Christian and those who have been led astray: for "just as hounds track down wild animals by following their scent, so, too, temperate men can detect the sensual by their elaborate sweet-smelling myrrhs".

Smell and the Christian empire

Constantine's conversion to Christianity in 312 CE brought a sea-change in the social environment in which Christians lived. Suddenly finding itself with the most powerful patron in the Roman world, both wealth and converts poured into the Christian church. The fact that the Roman empire now had a Christian head also meant that the physical world lost much of its stigma. The emperor's conversion implied divine approval for the secular state on earth. Among the many changes this transformation brought was a

significant increase in the degree of authorized sensory engagement by the Christian community. This new-found acceptability of the physical world meant that the body could be embraced as a site for experiencing the divine. The use of smell, therefore, acquired a fundamental role in creating a new form of Romano–Christian identity.

Such a transformation did not happen overnight. Constantine's dramatic conversion left many in the Christian church uneasy at their new accommodation with power. The use of incense remained problematic for many Christians. We should also be alert to the fact that seeing too sharp a divide between an austere early Christianity and its sensuous late antique version is itself to misrepresent the lived reality of many Christians before Constantine's conversion. Pre-Constantinian Christianity, as we have seen, shared many fundamental sensibilities with the pagan world. Nor was it clear for some decades after Constantine that Christianity had "won". Paganism and its sensuous practices remained vibrant in many areas of the empire. But by the fifth century, when Christianity was firmly embedded in its official status, both public and private Christian ceremony had become comfortable soaked in scented oils and incense (see Figure 11.2 for a later Byzantine example). What had once been seen as pagan practices were now adapted to suit the aims of a mainstream Christianity. A framework of olfactory prompts structured Christian devotion in both church and at home, with special smells attached to particular practices, objects and positions. Smell came to provide the same access to power that it had in the pagan past. It became important as a conduit through which divine power could be created and transmitted. But for the Christians, such olfactory use represented an intensification of the religious use of smell because of what they believed to be their more profound religious experience. Above all, it was the personal, intimate nature of the relationship between the individual and God which the Christian use of senses sought to capture, however obliquely and fleetingly. Smell, in effect, came to act as a sensory metaphor for the proximity between the individual soul and the God whose embracing love would bring it salvation.

The use of incense allowed for a dialogic exchange between human and God according to the traditional pagan model. The requirement of making sacrificial offerings was for the donor's benefit, not God's. Such a model of human–divine relations effectively reproduced in a theological form the patronage model that so dominated Roman social life. In the more hierarchical world of the late Roman empire, when power had concentrated ever more into the hands of an elite, it seemed even more appropriate to establish a model of the earthly and divine worlds that mirrored the vertiginous distance between the patron and his clients. Offering incense established the correct attitude of deference in the worshipper. It also enhanced the aura of authority of those who were God's rulers on earth: the emperors.

The rise in olfactory acts of Christian piety is at first sight at odds with the contemporaneous growth in asceticism. When St Antony withdrew from settled life in Egypt in the late third century CE he made an implicit rejection of the Roman material world. Other radical monks used the language of the senses to reject Rome outright. A fifth-century peasant monk in Egypt, Shenute, criticized the bath tax the locals had to pay: "We don't want to wash – we have no bread to eat; we have no care for anything of that sort when our children are starving and naked". Not washing made such holy men stink. Simeon Stylites rejected bathing and "so powerful and bad was the stench that not even half way up the ladder could one ascend except with distress. Some of his disciples who forced themselves to go up to him could not ascend until after they had

Figure 11.2 Tenth-century ivory relief showing the death of the Virgin Mary, with St Peter swinging a censer, 17 × 14 × 1 cm (6.7 × 5.5 × 0.4 in.). Walters Art Museum, inv. 71.66. Photo: Wikimedia Commons.

put on their noses incense and fragrant ointment".[17] Saint Theodore of Sykeon emerged after two years in a cave and, "his head was covered in sores and pus, his hair was matted and an indescribable number of worms were lodged in it; his bones were all but through the flesh and the stench was such that no one could stand near him" (20).

The stench of holy men served as a measure of their ascetic devotion. The filth in which they lived emphasized the difficulty of their project and the degree to which they had to control their senses if they were to have any chance of succeeding. Such success, when it was achieved, was reflected in a particular kind of smell: the odour of sanctity. This

17 Lent (1915: 156).

special smell was the divine fragrance emitted by those who had attained a state of grace. Giving a sense of what heaven itself smelled like, it reflected the proximity to God that the ascetic's personal discipline had established. This exquisite fragrance was God's reward for the rigorous devotion of the holy man. It was evidence of the unsullied soul within, a soul that had regained the purity of Adam's pre-lapsarian state. It showed that faith could overcome the physical limitations of the body. The power of this divine odour was considerable: the relics of holy men were often marked by this smell and could effect all manner of miracles, from curing the sick to driving out demons from the possessed. The holy oil, which had originally been poured over the bones of Christian martyrs to collect something of this wondrous scent, became an important weapon in the church's armoury.

But the self-inflicted stench of the ascetic also posed a challenge to the accepted olfactory codes of normal society. It reversed the conventional moral order that linked goodness to a sweet smell and vice versa. Men such as Theodore, covered with foul-smelling sores, tested the tolerance of the lay Christian community for such olfactory extremes. Their stench served to warn them of the perils of any sensory complacency, which Christianity's closer relationship with the physical world had brought about. As such, the malodour of the ascetic represented a means to challenge the new relationship of Christianity to power: it was an act of dis-scent. By using the physical realm to express a new form of human identity, holy men adopted the same sensory language that mainstream Christianity had increasingly used after Constantine's conversion. But their purpose was to create a body that in its transformation implicitly rejected the sensory codes of normal society.

We must be careful, then, not to see uniform acceptance in the expanded Christian community of the new forms of Christian sensuality. Anti-sensualism remains a strong theme in late antique Christian texts. In part, this reflected the fact that Christianity's victory was a long time coming and, indeed, was never total. Internal conflicts concerning Christian doctrine, reflected in heresies such as Arianism, and external religious groups and individuals, such as Jews and magicians, meant that moralizing Christian rhetoric continued to condemn the sensory practices of these unacceptable outsiders. In one example, the heretic Arius is described as having died by drowning in a latrine of his own dysentery.[18]

In many Christian texts, foul odours also acted as metaphors for a breakdown in the proper social order. Christian Chronicles, for example, often focus on the many disasters that seemed to happen in the later empire, such as the arrival of the bubonic plague in 541, and seemed to presage the imminent arrival of Judgement Day. The rhetoric of such accounts, therefore, is often concerned with the transgression of the normal limits of behaviour. It is a time when the traditional social framework is breaking down. This focus on social disorder is reflected in a focus on the disordered senses. All the usual rules of bodily comportment and sensorial order are overturned. Everything that is abominable and repugnant to the senses comes to the fore (for another example of this, see Bradley, this volume pp. 143–44 on Lactantius' vivid description of the stench of the diseased emperor Galerius).

Accounts of the plague dwell on the physical details of the victims: their vivid colours and dreadful stench. The normally solid body liquefied. Streams of putrid matter flowed

18 Theodoret, *History of the Monks* 1.10, quoted in Harvey (2014: 111).

Figure 11.3 Seventh-century incense burner carved with images of Jesus's life, including the Virgin and Child on the base. Height 11.7 cm (4.6 in.); width 13.9 cm (5.5 in.); depth 14.1 cm (5.6 in.). Walters Art Museum, inv. 54.2575. Photo: Wikimedia Commons.

from the skin, the bowels, the nostrils and the mouth. Piles of rotting, stinking corpses lay unburied in the streets. The fate of the body was particularly significant. White-haired old men were soiled by the putrefaction of their heirs, and beautiful girls and virgins, "who were looking forward to their bridal feasts", lay discarded, shamefully exposed and covered by the filth of the other dead. Handsome and cheerful boys turned black and, thrown in a heap, became "an object of terror".[19] Victims lost their identity and their right to a normal, decent burial. The plague therefore attacked not only the individual body, but also the social body of the community and the mystical body of the

19 John of Ephesus 543–44, 4th account of the Great Plague.

church. All of the usual relationships between the sacred and the profane were severed, as rites and proper burials ceased. The plague, therefore, represented the inverted image of the good death. It gave a foretaste of the rotting stench of Hell. The sensory extremes of the plague also served to lay bare the corruption of the body politic. The physical corruption of society was reflected in the fact that a non-Christian rot had set in at the top. How else was so dreadful a punishment on a Christian empire to be explained? This was a tension that was to endure in later medieval and early modern Christian discussions of disease, pollution and smell where the corruption of plague had a pronounced spiritual and moral dimension.[20]

Continued anti-sensory rhetoric in Christian sources from the late Roman empire shows the limits of the Christian accommodation with secular power. To look at the incense-filled censers (see Figure 11.3 for an example) and holy oils that accompanied the ceremonies and processions of late antique orthodox Christianity, and served to give olfactory reminders of the new relationship between God, His church, and His emperor, it was hard not to see a paganization of Christian practice. Such olfactory convergence generated grave concerns in many Christians, who feared a corruption of the true faith.[21] What they saw as the exclusive truth of Christianity was being subsumed into the religious melting pot that the later empire continued to be. However much, then, late antique Christian moralists might fulminate against the disgusting stench of pagan practices, in contrast to the holy fragrance of their own, this anger merely acted as an index of unease at the similarity that Christian and pagan sensory practices had come to acquire. It will take further studies in the other senses apart from that of smell – sight, taste, touch and hearing – for us to appreciate fully the complex range of sensory interactions that came to characterize pagan–Christian relations in the later Roman world.

20 See Bradley (2012: Part II: "Modernity").

21 An example of this kind of procession can be found in the Chronicle of Pseudo-Joshua the Stylite 30–31.

12

MISSING NOSES

Mark Bradley and Eric Varner

Noses, the facilitators of breathing and smelling, are the most central of the four sensory organs seated on the human head. They take centre-stage in the face and point up, down or out towards the viewer: they were what made a face a face.[1] In ancient portraits, too, noses are not incidental appendages, but a pivotal component in the construction of individual identity. Nevertheless, in extant collections of Roman marble portraits, missing or restored noses usually far outnumber original noses surviving from antiquity. Because they protrude from the face, noses are especially liable to incidental damage when a portrait falls or is toppled, which means that the noseless state of much ancient sculpture is hardly surprising.[2] But in the Roman world, from condemned emperors to pagan deities, sculpted noses were often deliberately targeted and mutilated, often in tandem with other sensory organs, where damage to eyes, ears, nose and mouth sought to deprive them of agency and the metaphorical power to breathe, smell, see, hear or speak. In recognition of the extent of statuary nose mutilation in antiquity, the Ny Carlsberg Glyptotek in Copenhagen created in 1981 a display called the "Nasothek" showcasing the marble and plaster noses that were added to classical portraits during earlier restorations in the museum, and which were subsequently removed as part of the post-war de-restoration campaign in order to make the portraits more authentic (see Figure 12.1).[3]

The destruction and mutilation of portraits mirrored the execution or assassination of real bodies, or the subsequent mutilation of actual corpses. Along with other types of mutilation, such as blinding and castration, nose mutilation was a familiar form of punishment and mutilation in the ancient world, with cases evident in Homeric Greece, the Persian Empire, Classical and Hellenistic Greece, and Republican and Imperial Rome. After Odysseus' self-revelation in *Odyssey* 22, the body of the suitor Melanthius (dead or alive, it is not clear) is dragged outside, his nostrils (*rhinas*) and ears cut off, followed by his genitals, hands and feet (22.474–77).[4] In Thebes, Heracles earned the epithet *Rhinokoloustēs* (the "Nose-Docker") on the grounds that he had cut off the noses

1 For a brief summary of ideas about ancient noses, see Gow (1951). Cf. Gilman (2000: xx): "the face, in terms of a psychology of perception, is not a face without a nose".

2 Portraits damaged by having been toppled in this way are often missing the tip of the nose, and not infrequently accompanied by damage to the tip of the chin. I thank Susan Walker for alerting me to this pattern.

3 On noses and identification at the Ny Carlsberg Glyptotek, see Moltesen (1991).

4 See Davies (1994); Newton (2011). Cf. 18.86 on King Echetus renowned for cutting off people's noses, ears and genitals as punishment. *Iliad* 21.301: ears and nostrils.

Figure 12.1 'Nasothek', Ny Carlsberg Glyptotek, Copenhagen, room 14: a cabinet displaying modern marble and plaster noses that had been affixed to noseless portraits in the museum. Photo: Mark Bradley. Reproduced with the kind permission of J. S. Østergaard.

of heralds who came from Orchomenos to demand tribute.[5] Plutarch (*De Exilio* 16) describes King Lysimachus of Thrace making an example of one of his subjects, who had insulted his wife, by cutting off his nose, gouging out his eyes and slicing off his ears and tongue, and then exhibiting him in a cage. Traitors and errant messengers were not infrequently subjected to the same punishment: Herodotus recounts how the Pharaoh Apries cut off the nose and ears of one of his court when he failed in an expedition (2.162); the Persian Zopyrus cuts off his own nose and ears in order to convince the Babylonians that he had deserted the Persians, a gesture so convincing that it led to the capture of Babylon (3.154–57); and Xerxes, building a colossal bridge to carry his army across the Hellespont and into Greece, cut the noses off all his engineers when it collapsed.[6] When Aeneas encounters the Trojan prince Deiphobus in Hades in *Aeneid* 6, he is reminded how Deiphobus' nose had been lopped off by Menelaus with a dishonourable blow (*truncas inhonesto uolnere nares*, 696) in retaliation for forcing Helen to be his bride. And one of Martial's epigrams picks up on Vergil by questioning the logic of nose-mutilation as a punishment for adultery: "Who persuaded you to cut off the

5 Pausanias 9.25.4. Cf. Apollodorus, *Library* 2.4.11.

6 Cf. Diodorus Siculus 10.19. On Zopyrus, see also Plutarch, *Regum et imperatorum apophthegmata* 3. Xerxes' bridge: Plutarch, *De tranquillitate animi* 10; cf. Herodotus 9.112 on Xerxes' wife Amestris, who cuts off the nose, ears and lips of Masistes' wife as a punishment for his insolence.

adulterer's nose? It wasn't through this part that you were wronged, husband. Stupid man, what have you done? Your wife has lost nothing while your Deiphobus' prick remains safe."[7]

Nose docking, then, was a far-reaching and widely recognized form of punishment and torture in the classical world from the earliest documented periods through to the fall of Constantinople, both in mythological and real-life contexts, and it is also documented in Pharaonic Egypt, pre-Colombian America, the Arab world, early India and Medieval Europe, and in recent years occasional instances in South Asian countries have attracted media attention for their brutality; traditionally, this practice has been the result of judicial punishment, vengeance sought by a wronged husband or lover, fighting in battle, martyrdom or even self-mutilation.[8] In Egypt there was even a settlement called Rhinokoloura ("the city of docked noses") where banished criminals whose noses had been sliced off as punishment were sent into exile, as a permanent reminder to others of their crime and as a warning of its consequences.[9] And the Old Testament prescribes nose-mutilation (and the mutilation of other appendages) as a punishment for prostitution (Ezekiel 23.25). Less extreme nasal torture included severe or humiliating assaults on the senses such as pouring noxious substances like vinegar or pepper into victims' noses, or rubbing them with excrement – a punitive activation of the curious Greek idiom "looking mustard (*napu*)" which implied an admonitory stare that made you feel its pungent effects (*drimutēs*) right at the back of your nose.[10] From the onlooker's point of view, then, nasal mutilation was primarily a visual matter: the very centre of the victim's face and one of the most striking features for facial recognition was disfigured; but for the victim, sensation itself was (at least symbolically) disrupted or truncated.[11]

Notable noses

From the Republican period, distinctive noses were among the most notable physical traits that were signalled in the final names (*cognomina*) of important Roman families. Noses are the direct basis of at least five names: Silanus, Silo and Silus related to the nose or spout and were used by the family of the Junii and the Sergii; Naso or Nasica meaning "Big Nose" were used by the Sempronii and, perhaps most famously, by the family of Ovid; and the name Cicero was given to the Tullius family because of the telltale cleft in their noses, which resembled a chick pea (Plutarch, *Life of Cicero* 1.2). Five *cognomina* relating to the mouth were also used, including Brocchus ("Fanged"); Dentatus, Denter and Dento ("Toothy", used by the gens Caecilia), Clio ("Large Lips [or

7 Martial 3.85. (*quis tibi persuasit moecho? / non hac peccatum est parte, marite, tibi. / stulte, quid egisti? nihil hic tua perdidit uxor, / cum sit salva tui metula Deiphobi.*)

8 For a useful summary, see Sperati (2009) (see www.ncbi.nlm.nih.gov/pmc/articles/PMC2689568/, accessed June 2014). See also Groebner (1995); Skinner (2014).

9 See Diodorus Siculus 1.60 (robbers banished by the Ethiopian king Actisanes); Strabo, *Geography* 16.2.31–32 (Ethiopians who had invaded Egypt). For other examples of *rhinokopia* as punishment or torture, see Herodotus 3.118; 4.71.2; Diodorus 17.69; Plautus, *Mercator* 39; Livy 22.51; 29.9; 29.18; cf. 34.45 on a child born in Ariminum without eyes or nose; Plutarch, *Consolatio ad Apollonium* 22 on post-mortem *rhinokopia*.

10 On "looking mustard", see Clements (2013); vinegar: Aristophanes, *Frogs* 620; pepper: Plutarch, *Coniugalia praecepta* 16.

11 Exactly how nose-docking affected smell and other senses is debatable: see below pp. 179–80.

Forehead]"), used by the gens Flaminia; and Labeo (also "Lippy"), used by the Antistii, Atinii and the Fabii. Three names are derived from the eyes including Ocella ("Dainty-Eyed"), used by the gens Livia; Paetus ("Squinty-Eyed"), used by the gens Aelia; and Strabo (also "Squinty-Eyed"), used by the gens Titia. Only one *cognomen* relates to the ears, Flaccus ("Floppy Ears"), used by the Avianii, Fulvii and Valerii.[12]

It is perhaps unsurprising, then, that in Roman portraits, notable noses distinguished notable individuals. The emperor Augustus is described by Suetonius as sporting a nose that was more prominent at the top and bending inwards somewhat at the bottom (*nasum et a summo eminentiorem et ab imo deductiorem*): this complex Latin description has been simplified several times by translators as an "aquiline" or even a "Roman" nose, but in spite of this anachronism it is clear that Augustus' nose was considered distinctive, and also that its prominent ridge was extended as a telltale sign of continuity in portraits of his Julio-Claudian successors.[13] Augustus' wife Livia displays a distinctive hooked nose in her portraits with a slightly bulbous tip: this individualized profile, which has become one of the diagnostic features of Livia portraits, was evidently a feature of her extraordinary position and authority in Rome, as indeed was the prominent beaked nose of her contemporary Cleopatra, which has attracted so much attention because it bears such poor witness to her legendary beauty and charm.[14] Livia's son Tiberius, the first of the hybrid Julio-Claudian emperors, merges in his portraits various features (including the prominent hooked nose) of his mother and his adopted father (and possibly perpetuating the portrait features of his illustrious Claudian ancestry), so underscoring the second emperor's position as Augustus' adopted son and legitimate heir.[15] After the suicide of Nero, subsequent emperors such as Galba, Vitellius, Vespasian and Nerva all feature large noses in their portraits, perhaps underwriting the change in regime and the distinctive novel authority that the new emperor brought to Rome; Nerva in particular at the end of the first century is presented with a very distinctive long and curved nose, even more striking considering that the majority of surviving marble portraits (over 80%) were recarved from pre-existing images of his assassinated and condemned predecessor Domitian. And later in the third and early fourth century a large prominent hooked nose would emerge again as a defining dynastic characteristic in the portraits of Constantius Chlorus and his son Constantine; the colossal head of the latter in the Capitoline Museum at Rome was in fact recarved from a head that had once been Hadrian, and then Maxentius, so that a nose that retained such prominence was something of a sculptural achievement.[16] Imperial noses, we may surmise, could be a

12 Cheesman (2009).

13 Suetonius, *Augustus* 79.2. For one mis-translation, see J. C. Rolfe in the Loeb edition (1913: 244).

14 On Cleopatra's famous nose, see Goudchaux (2001). Pascal had it right: "If Cleopatra's nose were shorter, the shape of the world would have been different" (*Pensées*, no. 162). For examples of Livia's nose, see Bartman (1999: 174–75, no. 64, figs. 3, 63, 161, 162); cf. p. 190, no. 99, fig. 55; pp. 187–88, no. 92, fig. 11. *British Museum Coins of the Roman Empire* I.131, nos. 81–84, pl. 24.2; Bartman (1999: 7, 12, 112, 114–16, 123, fig 6); Johansen (1994: 96, no. 36); Pollini (2013: 93–94, pl. 7).

15 For examples in the Ny Carlsberg Glyptotek and references, see Johansen (1994: 90–91, no. 33); 114–15, no. 45 (Tiberius); cf. 96–97, no. 36 (Livia).

16 For a portrait of Constantius in Berlin exhibiting a characteristic large curved nose with flaring nostrils, see Copenhagen, Ny Carlsberg Glyptotek 774, inv. 836; L'Orange and Wegner (1984: 100, pl. 25a–b); Varner (2014: 54). The colossal image of Constantine: Palazzo dei Conservatori, inv. 1622: Parisi-Presicce (2006); (2012: 15–17); Varner (2004: 53). On recarving portraits, see Prusac (2011).

prominent and striking feature of the emperor and his regime; just like the prominent hooked (*grupos*) noses that were idealized in Greek philosophical circles (see Introduction pp. 3–4), striking portrait noses could be connected physiognomically and artistically to vigour and authority.[17]

Nasal obliteration

Little surprise, then, that the nose was so often the target of damage inflicted on imperial portraits. These portraits were sculpted to evoke the visage of the living emperor as accurately as possible, and their original polychromy would have underscored the verisimilitude that they set out to achieve.[18] Indeed, the Younger Pliny makes explicit the anthropological implications of the violence against portraits in his dramatic account of the destruction of Domitian's golden images, which are attacked, disfigured and dismembered "as if blood and pain would follow every blow".[19] Caligula was the first of Rome's assassinated emperors whose images were attacked, but in fairly isolated instances.[20] Portraits of Nero, even gem portraits, are the first to exhibit significant mutilation, often concentrating on the nose, and certain portraits of his wife Poppaea have been subject to the same treatment.[21] The noses of portraits of Nero at Cos and Cagliari have been destroyed during the deliberate disfigurement of the faces, and the portrait in Cagliari has been further denigrated through an ironic graffito scratched onto the chest of the bust: "VICTO" (to the conquered) is a sarcastic inversion of "VICTORI" (to the victor), simultaneously recalling Nero's victory crowns awarded during Greek tour and linking the mutilation and loss of the portrait's nose to his ultimate defeat.[22] A relief portrait of Domitian from Domitian's Villa at Lake Albano displaying the emperor victorious in his cuirass was also deliberately effaced, with the nose and forepart of the face chiselled off; here the violent assault on the portrait has deprived the image of all its sensory organs.[23] And almost a century later, when Commodus was murdered and the Senate voted to formally condemn his memory in 193 CE, a number of the emperor's portraits (and those of his sister, wife and cousin) were disfigured and the noses obliterated, an artistic corollary to the unsettled politics and dynastic instability of the period.[24] During the political turmoil of the third century, statuary nose mutilation became commonplace, and even bronze portraits could be subjected to this treatment:

17 "Nasology" appears to have become a prominent pseudo-science in Victorian England: see Warwick (1848), where the Roman or "aquiline" nose was equated to powers of decision, energy and firmness, and a national characteristic of the Roman race.

18 Bradley (2009b).

19 *Panegyric* 52.4–5 (*ut si singulos ictus sangus dolorque sequeretur*).

20 Kristensen (forthcoming).

21 See Varner (2001: 48).

22 Cos, Museum, inv. 4510; Varner (2004: 49–50, 114, 171, 186, 237, no. 2.2); Cagliari, Museo Nazionale, inv. 6122 h. 0.51 m.; Varner (2004: 49–50, 114, 237, no. 2.1, fig. 42).

23 Castel Gandolfo, Antiquario di Villa Barberini, inv. 36392; h. 0.48 m; La Rocca, Parisi Presicce and Lo Monaco (2011: 268, no. 4.15).

24 Phillipi, Museum inv. 469; Varner (2004: 138–39, 171, 186, 270, no. 6.1, fig. 138); Rome, Antiquario Communale sul Celio, h. 0.26 m.; Fittachen and Zanker (1985: 85, no. 77, pl. 94); Varner (2004: 270, no. 6.2). See also Varner (2001: 73–74, 79–80). On Cassius Dio and contemporary politics, see Gleason (2011).

Figure 12.2 Basalt bust of Germanicus (c. 14–20 CE), showing deliberate nose mutilation, most likely by Christians in late antiquity. British Museum, inv. 1872, 6–5.1. © The Trustees of the British Museum.

one such portrait of Gordian III received gaping wounds to the nose and the site of the ears.[25]

Noses continued to be targets of mutilation as Christians attacked both portraits and ideal images of gods and heroes. Indeed, the nose is almost the sole target of mutilation to a basanite portrait of Tiberius' nephew Germanicus in the British Museum (Figure 12.2),

25 On nose obliteration following Caracalla's declaration of his younger brother Geta as *hostis*, see Herodian 4.8; *Historia Augusta*, *Caracalla*. 1.1. On Macrinus, see Fittschen and Zanker (1985: 112–13, no. 95, pls. 116–17). All six surviving portraits of Maximinus Thrax have been mutilated and despoiled of their noses, in imitation of the emperor's own treatment: see Varner (2004: 202, 283, fig. 203, 284). Gordian III: Lahusen and Formigli (2001: 304–6, no. 189).

Figure 12.3 Gold *solidus* of Justinian II Rhinotmētos from the end of his first reign (c. 692–95): the nose on the image of Christ on the obverse appears to have been blotted out. Reproduced with the kind permission of Gorny & Mosch auction house. Photo: Lübke and Wiedemann KG.

in which a slit has been carved into the right earlobe and a cross onto the forehead, which suggests a Christian attempt to deface the image. T. Kristensen has associated the vandalization of this particular portrait with a passage of the Babylonian Talmud, *Abodah Zarah*, which discusses the annulment of an idol through cutting off "the tip of its ear, the tip of its nose or the tip of its finger or by defacing it".[26] Similar evidence of Christian mutilation of the noses, eyes and mouths of imperial and ideal sculpture alike is widespread, and became commonplace in the Byzantine world, where *rhinokopia* became a standard form of political punishment, alongside blinding and castration.[27]

Justinian II "Rhinotmētos"

Justinian II (669–711), last Byzantine emperor of the Heraclian Dynasty, had two reigns. At the end of the first (685–95), he was dragged into the Hippodrome at Constantinople by the usurper Leontius and subjected to *rhinokopia* (slicing off the nose) and *glossotomia* (clefting the tongue) in front of the cheering crowd: this mutilation ensured that he would never again take the throne, since the emperor was expected to be the perfect image of God, free from any physical deformity.[28] On at least one gold *solidus* minted

26 Inv. 1872, 0605.1, h. 0.44 m.; Kristensen (2013: 94); *Abodah Zarah* 4.5.I B, translation: Neussner; or *Abodah Zarah* folio 53a, translation: A. Cohen. For a similar example of Christian mutilation, see Bursa, Museum, inv. 200, h. 0.355 m; Inan and Rosenbaum (1966: 85–86, no. 62, pl. 39.1–2).

27 For further examples of Christian mutilation, see Bursa, Museum, inv. 200, h. 0.355 m; Inan and Rosenbaum (1966: 85–86, no. 62, pl. 39.1–2); Hannestad (2001); Kristensen (2013: 94, 102–4, figs. 1.24–27). Cases of Byzantine nose mutilation: Theodorus (637); John Athalarichos (637); Heraklonos (641); Justinian II (695); Leontius (698). In the laws of Leo III and Constantine V issued in 726, adultery, incest and underage sex would be punished with nose-cutting: see Skinner (2014). In general, see Haldon (1990: 41–91).

28 A ruling that might be traced back to the prohibition at Leviticus 21.18 on imperfect men serving as priests.

during Justinian's first reign, the figure of Christ on the obverse shows clear signs of the nose having been blotted out, perhaps in imitation of the emperor's real-life mutilation (see Figure 12.3).

However, after surviving ten years in exile, during which Leontius himself was dethroned and subjected to *rhinokopia*, Justinian reappeared, wearing a golden prosthetic nose over his disfigured face, and once again seized the throne. During the bloody six years of his second reign (705–11) he was known as Justinian "Rhinotmētos" (the "Slit-Nosed"), although contemporary coins – perhaps purposefully – show no evidence of nasal mutilation. There has been some scholarly debate about whether Justinian wore a golden nasal prosthesis during his second reign, or in fact became one of the earliest cases of rhinoplasty in the western world: scholars have sometimes identified the finely rendered and highly stylized porphyry Carmagnola head (Figure 12.4) perched on a

Figure 12.4 The "Carmagnola Head", Basilica San Marco, Venice (sixth–eighth century CE), sometimes thought to represent Justinian II Rhinotmētos. Photo and permission: Fabio Barry.

balustrade in the loggia of the Church of San Marco in Venice as that of Justinian II, on the basis of the curious flattened nose, with a gouge in the nasal ridge and a large slit cut across the base of the missing nostril openings. In 1913 Richard Delbrück, who identified the head as that of Justinian Rhinotmētos, even suggested that it showed evidence of a forehead flap nasal reconstruction, which was a procedure carried out by contemporary Indian rhinoplasty. Delbrück's argument was met immediately with scepticism, and general consensus now holds that the head is that of Justinian I, produced in the sixth century. However, like so many imperial portraits, it is likely that the expensive porphyry head was reused and recarved, and the features of Rhinotmētos may well have been imprinted on to the head: Justinian II had every reason to reuse the imagery of his illustrious namesake, and in his case it would be possible to exploit the damage typically done to the noses of stone portraits in order to portray his distinctive profile. Much of this is, of course, speculation, but it is clear that Justinian's missing nose was a defining feature of the contemporary Byzantine power struggle, and his reconstituted role as emperor may have been explicitly represented by his reconstructed nose.[29]

Conclusion

What does all this have to do with smell? Do missing or mutilated noses affect olfaction? For the other senses, there is a reasonably straightforward connection between the destruction of the sense organ and the deprivation of the sense in question: in antiquity, eyes were gouged out to blind victims; ears were perforated to deprive them of hearing; tongues were cut out both to prevent them from talking and also to cut off access to taste; and hands and fingers could be amputated to limit the victim's tactile facilities. However, there is in fact no direct relationship between a docked nose and anosmia: the olfactory epithelia are situated inside the head, many centimetres beneath the outer nose, so that air inhaled through the cavities remaining after the removal of the nose is theoretically subjected to the same olfactory treatment as it is by those who have their noses intact.[30] Nonetheless, it is clear that some ancients believed that noselessness and anosmia went hand-in-hand: in his lectures on the significance of loss and damage, the second-century Stoic philosopher Epictetus turned to the case of the man who loses his nose and argued that not only is his body mutilated, but that he loses his sense of smell (*osphrēsis*), one of the faculties of the soul (*dunamis psychēs*).[31] In addition, modern scientists have begun to argue that the vomeronasal organ, which senses pheromones, survives in humans in the form of narrow sacs that lie on either side of the nasal septum on the part of the nose that protrudes from the face; furthermore, nose docking could interfere with air-flow patterns, and vapours inhaled through curtailed nose channels may not be warmed and moistened in a way that facilitated effective olfaction; and infection, drying of the inner tissues and other disorders could affect a sufferer's sense of

29 For a good discussion of this case, see Remensnyder *et al.* (1979), with Delbrück (1913). In general on Justinian II, see Head (1972). On ancient medical repairs to fractured noses, see Hippocrates, *De articulis* 35–39.

30 For an excellent discussion of the role of features of the human face in communication and perception, see Bruce and Young (2011).

31 Epictetus, *Discourses* 2.10.21.

smell, an impairment that could also extend to taste.[32] However, this is all over-thinking the problem. Ancient noses were cut off to spite the face.[33] They were mutilated so that others could see the permanent trauma to the centre of the face and the obliteration of what was arguably the most noble and expressive part of the body, resulting in severe disfigurement, psychological trauma and social isolation. In the case of portraits, what perhaps mattered most was that heads with missing noses could only be recarved and reused with great difficulty, and therefore (like mutilated traitors and deposed tyrants) could be showcased as a permanent *damnatio memoriae* of the subject in question. Viewers could draw their own conclusions about the experiences of victims and their sensory engagement with the world, and it is unsurprising that mutilated statues symbolically communicated these same ideas. Faces disfigured through the obliteration of noses, ears and eyes ceased to participate in the world around them, and the nose was the most central and prominent sense organ that could be targeted. Significantly, despite the obliteration of noses or other sensory organs, these mutilated images remained recognizable and retained their original identity but in a conspicuously defaced and debased format. As this volume has shown, smell functioned as a primary and primordial experience of the human environment, distinguishing good from bad, right from wrong: the nose policed food and drink before it was consumed; it discriminated foul and fragrant habitats; it tracked down objects of desire; and it sniffed out danger, disease and pollution. Depriving ancients of this facility, then, marked the impairment of their basic acumen, wits and judgment.

32 We thank Anshul Sama and other ENT specialists at the University of Nottingham for their advice on this matter.

33 A very old English idiom that may have been coined as early as the twelfth century, alluding to multiple legends of pious women who disfigured their faces in order to protect their virginity.

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