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SYNAESTHESIA AND THE
ANCIENT SENSES

Edited by
Shane Butler and Alex Purves

ACUMEN

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COLOUR AS SYNAESTHETIC EXPERIENCE IN ANTIQUITY

Mark Bradley

INTRODUCTION

In 1858, William Gladstone, British Prime Minister-to-be and a proficient Homeric scholar, famously argued that Homer's colour system was founded exclusively upon light and darkness, and that the organ of vision "was but partially developed among Greeks".¹ He was not the first to make such a claim about defective Greek colour vision: a generation before, the German polymath Goethe had made similar claims about ancient art, and others had drawn attention to the material poverty of colour in the ancient Mediterranean environment – the scarcity of dyes, paints and flower varieties, as well as the relative uniformity of ancient body colours. In the nineteenth century, these ideas chimed well with some of Darwin's theories about human evolution and the development of civilization, and some even invoked the newly-discovered phenomenon of colour-blindness to explain ancient insensitivities to colours.² The question about the poverty and imprecision of ancient colour vocabulary has been hotly debated by philologists and anthropologists ever since, and studies of ancient colour vision across the last hundred years have been dominated by efforts to demonstrate that the ancients in fact employed a highly sophisticated colour system. This system operated, the argument goes, along somewhat different parameters from our own: rather than hue, the ancients were sensitive primarily to such things as luminosity, saturation and texture, or even less obvious variables such as smell, agitation and liquidity.³

The ancients of course were certainly not "colour-blind", and we must be just as careful about using the term "synaesthesia" to describe ancient experiences. As we know,

1. Gladstone (1858: 488): "Homer's perceptions and uses of colour", discussed in Irwin (1974: 6–7).

2. See esp. Schultz (1904: 187–8).

3. The nature of the ancient colour system is still very much up for debate. For further detail, see Bradley (2009), esp. 12–17. For a detailed study of two particularly problematic Greek colour categories (although with some short-sighted conclusions), see Maxwell-Stuart (1981).

synaesthesia is a complicated neurological condition in which stimulation of one sensory pathway leads to automatic, involuntary experiences in a second sensory pathway.⁴ In these terms, the ancients were not synaesthetic any more than they were colour-blind. However, this does not mean that we should not think about how and why associations between the different senses were taking place in ancient thought, or indeed revisit the distinction between the five senses that most of us now take for granted.

This essay will explore approaches to colour beyond the visual paradigm by examining a range of ancient colour experiences that may appear to be “synaesthetic”. One approach might be to focus on a set of ancient contexts where colour appears to be used metaphorically to refer to other sensory experiences: early Greek musical theory, for example, with its “chromatic” scales, or the *colores* of Roman oratory.⁵ There is a way of feeding these experiences into a story about synaesthesia: for experts trained in musical harmony, certain chords corresponded to colour experiences in a way that might be compared to the correlation of music and colours in the minds of genuine synaesthetes in the modern West (see Rosen, this volume, p. 96); and Roman orators from the late Republic onwards developed discourses in which their rhetorical style, arguments and embellishments were intimately connected to innate and artificial colours on the body. However, there is a more direct argument that can help us to connect colours to other sensory experiences in antiquity, and this involves redirecting our attention to some very basic questions: What did the ancients think a colour was? What part did colour play in the relationship between the viewer and the world around? And how was colour experienced and evaluated?

COLOUR AND CULTURE

There are two reasons why the study of colour in antiquity merits scholarly attention. The first is that many ancient colour terms are notoriously difficult to translate: there is a long list of terms in Greek and Latin that do not map straightforwardly onto English, and furthermore there are a number of basic colours that we use that appear to have no equivalent in antiquity. Classical colours, then, do not always make sense in our own sensory repertoires. We need to work towards a more sophisticated understanding of the ways in which poets, artists, orators, philosophers and historians deployed colour categories and formulated the relationship between their art or text, and the world it described. The second reason why colour is important is that it is formulated and packaged by the communities that use it.

In an engaging article published in 1985 titled “How Culture Conditions the Colours We See”, Umberto Eco produced a diagram illustrating how differently English, Latin and Hanunóo colours work. The Hanunóo, a set of communities in a region of the Philippines,

4. On various artistic and scientific approaches to the subject, see Campen (2008).

5. On Greek musical colour, see Landels (1999: 90–92); Barker (1984), esp. 225–7; on Latin rhetorical color, see Bradley (2009: ch. 4); cf. *ibid.*: 69–70 on Greek concepts of colour (*chrōma*) in oratory.

| mμ | Aver |
|---------|--------|
| 800–650 | Red |
| 640–590 | Oran |
| 580–550 | Yellow |
| 540–490 | Green |
| 480–460 | Blue |
| 450–440 | Indig |
| 430–390 | Violet |

Figure 9.1 A comparative wave estimates (after

have long been recorded and incorporate quite distinct levels depending on the diagram, which set use (its interpretation of colour in different

Colour, then, is: the world around it. It is well known that and there are many Russian has two distinct blue and green. Various are to us very strange cross into the domain known example of have captured the element of colour: it is categories included in environment within for snowflakes).⁷ It is not to particular patterns and markings of this means is that in which these colours are intimately connected

6. See Conklin (195

7. For this myth, see

| mμ | Average English | Latin | Hanunóo level 1 | | | Hanunóo level 2 |
|---------|-----------------|------------------------|-----------------|-----------------|---|-----------------|
| 800-650 | Red | <i>Flavus</i> | <i>Fulvus</i> | Marara (dry) | Malagti (light) | |
| 640-590 | Orange | | | Malatuy (fresh) | | |
| 580-550 | Yellow | | | | | |
| 540-490 | Green | <i>Glaucus</i> | | | Mabiru (dark) | |
| 480-460 | Blue | | | | | |
| 450-440 | Indigo | | | | | |
| 430-390 | Violet | <i>Caerullus (sic)</i> | | Mabiru (rotten) | Mabiru & Marara (indelible) Malatuy & Malagti (weak) | |

Figure 9.1 A comparative diagram of colour categories in English, Latin and Hanunóo, with light-wave estimates (after Eco 1985, discussed in Bradley 2009: 25). Redrawn from the original.

have long been recognized to use a complex system of colour terms that not only overlap and incorporate qualities of moisture, texture and shine, but also operate at two distinct levels depending on the type of communication being used.⁶ Although this kind of diagram, which sets out to measure colour experiences against wavelengths, is of limited use (its interpretation of Latin colours is demonstrably misguided), it does show us how colour in different cultures can tap into a very different set of aesthetics.

Colour, then, is a basic cultural building block by which we can gauge how people see the world around them, and it is about much more than just lightwaves hitting the retina. It is well known that different cultures can discriminate and describe colours differently, and there are many examples of languages that employ unusual patterns of colour usage: Russian has two distinct terms for our colour blue; the Japanese category *ao* cuts across blue and green. Various African, South American and Asian communities employ what are to us very strange systems of colour usage, incorporating properties and qualities that cross into the domains of smell, taste, touch and even sound: the Hanunóo are one well-known example of such communities. In South Sudan, a nomadic tribe called the Dinka have captured the attention of anthropologists and sociologists for their unusual employment of colour: it used to be claimed that this community's rich repertoire of colour categories included dozens of terms within the yellow-brown range, perhaps due to the arid environment within which they lived (much like Eskimos with their versatile vocabulary for snowflakes).⁷ In fact, recent research has tied the perception of many of these colours not to particular points on our colour charts, but unequivocally to the shades, patterns and markings of the cows that performed such a critical role in the Dinka's lives. What this means is that the world perceived by the Dinka, at least the world of the tribal song in which these colours are most conspicuous, is reformulated so that its various objects are intimately connected to the living, breathing, pungent, bellowing creatures which the

6. See Conklin (1955).

7. For this myth, see Lienhardt (1960: 12-16); Beard (2002: 47).

community values so highly.⁸ It is telling that Berlin and Kay's influential (though now largely discredited) *Basic Color Terms* (1969), which proposed an evolutionary system of colour discrimination based on cultural progression – placing many “primitive” tribal communities at stage I, Homeric Greek at stage IIIb, and (predictably) English, Japanese and Russian at stage VII – completely misunderstood the complexity of Dinka colour language and ranked it in the dizzy heights of stage VII because it appeared to employ colours that mapped on those used by the developed West. Like Eco's diagram, then, Berlin and Kay have inadvertently exposed the limitations of assuming that colour is straightforwardly a visual phenomenon that can be systematically measured on our colour charts.

In fact, as the Dinka demonstrate (as do the Eskimos with their snowflakes), communities distinguish colours that are important or significant to them. Often these colours are grounded in the sensible, tangible material world rather than just what they happen to look like. Studies of primate colour vision have demonstrated that primates distinguish between yellow, green and red, corresponding to ripe, unripe and poisonous fruits: for them, colour is intimately connected to the world of taste and smell. Colour, then, is not an objective phenomenon: these same studies sometimes preface their work with the Cartesian principle that colour is in the mind, not in the physical world.⁹

This essay is not going to argue that we can be as schematic about colour in antiquity as we might be about the Dinka or fruit-seeking monkeys, but it is nonetheless axiomatic that we can learn a great deal about ancient values and priorities by looking at how contemporaries perceived, described and talked about colours. We will begin by thinking about what ancient thinkers considered a colour to be. How we define a colour in the modern West is hardly straightforward, but on the whole it is agreed that we operate using a predominantly abstract system of colours. We can conceive a colour as something detached from the people, objects and landscapes it coloured: we can picture “yellow” in our minds and transfer it straightforwardly from blond hair, to straw, to sulphur, to synthetic dyes and felt-tip pens; our “green” can describe plants, parrots, emeralds, sick faces; and so on. Ancient colours appear to have worked rather differently.

APPROACHING ANCIENT COLOUR

One of the most sensitive and successful recent studies of Greek colour terminology is Michael Clarke's “The Semantics of Colour in the Early Greek Word Hoard” (2004). This essay argues that there was a linguistic prototype at the bottom of ancient colour experiences: these were pivots or “cognitive reference points” around which various Greek experiences of colour fluctuated in concentric circles. Clarke's study focused on four complex

8. On Dinka bovine chromatography, see Coote (1992: 250). For a critical response to Coote's approach, see Gell (1995), who situates this colour repertoire in the competitive discourse of the Dinka poet, rather than the community at large. See also Bradley (2009: 29–30).

9. See for example Regan *et al.* (2001).



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Greek colour terms: white”/ “nimble”); p “Dionysiac”).

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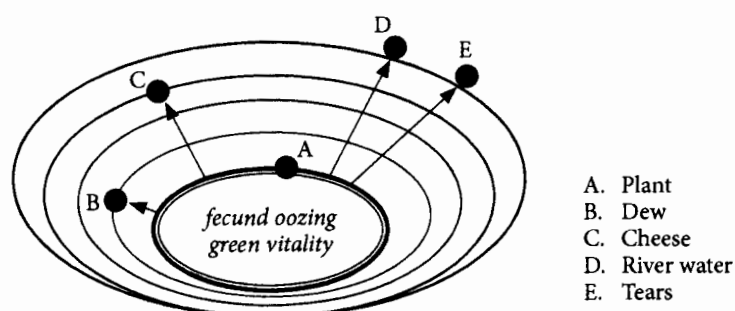


Figure 9.2 "Fecund oozing green vitality", from Clarke (2004: fig. 2). Redrawn from the original.

Greek colour terms: *chlōros* (interpreted as "green"/"fecund"/"oozing"); *argos* ("gleaming white"/"nimble"); *porphureos* ("purple"/"heaving"); and *oinops* ("wine-dark"/"frenzied"/"Dionysiac").

Figure 9.2 shows what Clarke believes happened with early Greek uses of *chlōros*: this category, which in essence evokes the abstract qualities implied by "fecund oozing green vitality", was applied to a range of objects or phenomena in the environment that approximate to those qualities; across time, these associations generally become looser, so that what began primarily as a descriptive category of plants could later be extended to such loosely-connected phenomena as river water or tears. Michael Clarke's approach provides us with a sophisticated model at the cutting edge of modern linguistics: the idea that ancient colour "prototypes" were often at "the meeting point of several cognitive domains" which the modern West usually keeps distinct – colour, light, movement, texture, mental states, and so on – offers a persuasive solution to understanding some of the more troublesome colour categories of antiquity.

The research presented in this essay has certain things in common with Clarke's approach. It argues that early categories of colour are tied to primary experiences and are then applied more loosely and creatively to other phenomena across time. However, rather than thinking in terms of an abstract prototype at the centre of ancient colour experiences, it contests that colours were associated primarily with specific, distinct objects, so that *chlōros* refers not to abstract green, fecund, oozing, but essentially means "verdant" or "plant-coloured"; *oinops* directly evokes wine and then (by extension) its colour, flavour, effects and association; and so on. The ramifications of this approach for the present volume, then, are self-evident: an object-centred experience of colour can also help us to understand why we find so many multi-sensory uses of colour in antiquity.

So when Romans think of *uiridis* (or *chloros*), they picture plants and verdure rather than just abstract green: this is why Columella can talk of the "green taste" (*uiridis sapor*) of olives, Horace can picture "green flames" (*uirens flamma*) spouting out of Mt Etna, and Aulus Gellius can describe a strong and vigorous sound, such as the letter "H", as *uiridis*.¹⁰

10. Columella, *On Agriculture* 12.49.8; Horace, *Epodes* 17.33; Aulus Gellius, *Attic Nights* 2.3.1. For a full discussion of *uiridis*, see Bradley (2009: 7–9).

Once we accept that Latin "*flauus*" primarily means "blond" rather than yellow, we can better understand why Latin poets might imaginatively describe billowing cornfields and olive-leaf garlands as "*flauus*": they might share similar wavelengths, but they also share similar tactile qualities and associations.¹¹ And when we recognize that *caeruleus* does not just mean "blue" but evokes the watery depths, we can better explain why storm clouds are often "*caeruleus*", but the clear blue sky is not, and why "*caerulea Crete*" is not a blue island, but one surrounded by and associated with deep waters.¹²

This idea of colour as an object-centred experience tallies well with various philosophical approaches to perception. Greek and Roman thinkers across a range of philosophical schools frequently described colour (*chrōma* or *color*) as the surface or outside skin of an object, what defined that object and made it visible. In *On the Soul* (2.132), Aristotle pointed out that colour exists only at the surface of an object (ἥπερ καὶ ἔξω χρωματίζεται); for Lucretius (*On the Nature of Things* 4.97), colour lies "in front and on the very outside (*in promptu quoniam est in prima fronte locata*)". The Greek words *chrōma*, *chroia* and *chrōs* appear to have approximated to our sense of "colour" through primary reference to surface, particularly the skin of the body or face, although they were sometimes extended to describe paints, dyes and cosmetics. The Latin word *color* carried similar connotations. The qualities to which these words referred, then, were inextricably bound up with the external and the superficial – the "surface" – and it is here that we can best situate an argument about the synaesthetic properties of ancient colours.¹³ Colour in ancient thought operated as a basic index of the world around. It was sometimes described in philosophical circles as the primary object of vision;¹⁴ however, because it was attached so closely to actual *things* in the world, it could mobilize the full range of senses, and this essay will now explore several contexts in which this object-centred experience plays out.

THE WINE-DARK SEA

Homer's wine-dark sea (*oinops pontos*) is perhaps antiquity's best-known colour problem.¹⁵ This is the sea at which the grieving Achilles gazes at the funeral of Patroclus (*Iliad* 23.143), and the sea in which Odysseus loses his ship and men after the killing of the cattle of the sun (*Odyssey* 5.132; 5.221; 7.250; 12.388), and is an epithet used several other times in Homeric verse. Because many of these instances appear to occur at or around sunset, one explanation that has won favour in recent years is that it refers to "sunset-red", but this stubbornly visual interpretation assumes that "red" is straightforwardly transferable from wine (which might be one of several colours) to fiery sunsets. Other interpretations

11. On *flauus*, see Bradley (2009: 1–6). *Flauus* cornfields: Tibullus 2.1.48 *deponit flauas annua terra comas*; *flauus* olive leaves: Vergil, *Aeneid* 5.309.

12. Bradley (2009: 9–11). On *caerulea Crete*, see Seneca, *Hercules on Oeta* 1874.

13. For an extended discussion of philosophical definitions of colour, see Bradley (2009: ch. 2).

14. See for example Plato, *Charmides* 167c–d; Aristotle, *On the Soul* 418a27.

15. For a history of this problem, see Rutherford-Dyer (1983).

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include the bubbling of fermentation, a shimmering surface similar to that evoked by the equally complex term *porphureos* (see below, pp. 135–8), or even a type of cheap bluish wine akin to the obsolete French “*petit bleu*”/ “*gros bleu*”.¹⁶ But all these again rely doggedly on a set of abstract sensory associations. More recently, as discussed above, Michael Clarke has suggested that *oinops* in fact referred to abstract concepts of “wine-dark”, “frenzied” or “Dionysiac”, and the category’s more direct associations with the properties of wine (not just its visual appearance, but also its taste, smell, effects and dangers) contribute a great deal more to the semantics of the lines in which this colour is used than a straightforwardly chromatic interpretation. Achilles is intoxicated with grief and revenge; Odysseus is shipwrecked in waters that are as deep, intense, and treacherous as wine (and that might, at certain times of day, share similar wavelengths); and so on. *Oinops*, inasmuch as we can call it a “colour”, appealed to the object as much as what it looked like.

MEDICAL COLOURS

There has been some important work done in recent years, particularly in French scholarship, on the use of colour classification in medical texts from the Hippocratic corpus through to Galen.¹⁷ As well as drawing upon colour terms employed in Greek verse, medical experts would typically use categories derived from everyday objects, such as milk, metals, flower petals, lentils or bran in order to diagnose symptoms and describe the colour of patients’ skin, eyes and secretions. Skin that was the colour of whey (*orōdēs*), to take one example, was not only yellowish-white in appearance, but also conjured up the idea of a bumpy texture and perhaps also the characteristic odour of pus.¹⁸ There are also instances of men and women described as having “the colour of a sardine” (τὸ χρῶμα ἰσχυρῶδες), and the synaesthetic qualities of this category leave little to the imagination.¹⁹ Ancient medical writers in fact plotted out a close relationship between the colours of the human body and the four humours: blood, phlegm, yellow bile and black bile, which for Galen corresponded to the four basic body colours – red, white, yellow and black; these were also, as it happens, characterized by properties of touch (hot–cold, wet–dry), as well as smell.²⁰

PHYSIOGNOMIC COLOURS

Third, in a connected branch of science, physiognomic thinkers also drew upon some of these ideas to explain the appearance, character and behaviour of different ethnic

16. See Christol (2002).

17. See Villard (2002), esp. chapters by Villard, Boudon and Boehm. I have discussed some aspects of the relationship between medicine and colour in Bradley (2009: 130–5).

18. Hippocrates, *Epidemics* 7.5.9; 7.35.2.

19. See Hippocrates, *De mulierum affectibus* 2.110; 2.116, with Villard (2002: 63).

20. For the complexities of sense perception in Galen, see also Siegel (1970).

types.²¹ The effects of physical environment on bodily appearance, and consequently on behaviour, had already been explored in medical texts such as the Hippocratic *Airs, Waters, Places*, and Galen is sometimes credited with integrating a theory of humours with physiognomic characteristics.²² The category *Aethiops*, for example, described literally a "sun-darkened face" and was regularly used by Romans to evoke a sense of physical and cultural distance in the individuals to whom it was applied. Generally, such a face had been "coloured" (*coloratus*) or "burned" (*ustus*) by the heat of the nearby sun: as Pliny the Elder put it, these people were born with a scorched appearance and curly hair, compared to those in the opposite region of the world who have frosty skin and straight blond hair. Unsurprisingly, Pliny claimed that the Romans in the middle had a well-moderated complexion (*color temperies*).²³ Vitruvius noted the same polarities where colour was an indicator of various different qualities, both aesthetic and moral: the big well-watered northerners whose appearance (*color*) is not drained of moisture and so have a pale complexion, straight red hair and bright blue eyes and a lot of blood, versus the burnt and parched little southerners with their swarthy complexions, curly hair, black eyes and thin blood.²⁴ Seneca went as far as observing that people who are blond and ruddy-faced are particularly prone to anger, since their blood is thin and stirred up.²⁵ In these contexts, colour was not just part of the visual spectrum: it was an index of physiological make-up incorporating (as in ancient medical theory) a variety of sensory properties.

One physiognomic colouration that was not normally associated with race or origin, but which was a significant and recurring motif in Roman literature, was the blush. The Latin category "*rubor*", often translated as "redness", was a category of ancient experience inextricably connected to the blush, and all its physiological and moral connotations.²⁶ *Rubor* was felt as much as it was seen: whether we look at Lavinia's famous blush in the *Aeneid*, the *rubor* of embarrassed lovers in elegiac verse, or the emperor Domitian's *rubor* in the pages of Pliny or Tacitus, this colour is hot and flowing, tangible and uncontrollable.²⁷ One of Seneca's *Epistles* points out that youths are particularly affected by *rubor* because they have more body heat and a soft exterior; blood is stirred up (*incitatus*) and fluid (*mobilis*) and quickly rushes up into their face.²⁸ As with the other examples of somatic colour discussed above, *rubor* was imbued with sensory properties beyond the visual domain.

21. For an introduction to ancient physiognomy, see Barton (1994: ch. 2); on the relationship between medicine and physiognomy, see Sassi (1993).

22. On Galen and humoral theory in physiognomics, see Evans (1941: 287–96).

23. Pliny, *Natural History* 2.189. Generally on these categories, see Balsdon (1979).

24. Vitruvius 6.1.3–4.

25. Seneca, *On Anger* 2.19.5.

26. I have discussed "the colour blush" in Bradley (2004).

27. Lavinia: Vergil, *Aeneid* 12.64–71; elegy: Ovid, *Amores* 2.4.33–50; Domitian: Pliny, *Panegyric* 48.4; Tacitus, *Agricola* 45.2.

28. Seneca, *Epistles* 11, with Bradley (2009: 153–4).

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PURPLE

Dress was one of the most evocative means by which the ancient body utilized and exhibited colour.²⁹ By definition, costume colours were derived from synthetic dyes, and so we might perhaps expect that this experience of colour operated exclusively in the visual domain. However, the very dyes and pigments that were used often had olfactory and tactile properties that made the clothes on which they were used part of a versatile multi-sensory experience. Ancient thinkers such as Theophrastus, Vitruvius and Pliny the Elder lay great emphasis on the idea that dyes and pigments, like perfumes, were inherently objects with a range of aesthetic properties and associations, rather than just straightforwardly colours: the author of the *De coloribus* (*On Colours*), for example, made the fundamental claim that all dyed things take their colour from the object that dyes them.³⁰

When ancients wore saffron robes (*crocotae*), for instance, they were doing so as much for their smell as for their distinctive colour, and accordingly ancient writers lost no opportunity to flag up associations with flowers and femininity: effeminate Roman noblemen in Ciceronian invective, fragrant women in Ovid's *Art of Love*, or the saffron costumes of the self-castrated eunuch priests of Magna Mater.³¹ One of the most odorous of ancient costume-colours was that produced by sea-purple dye (Greek *porphura* or Latin *purpura*), a colour that distinguished the clothes of Persian monarchs, Hellenistic royalty and the formal trappings of Roman *imperium*. This dye, which came in many shades in the red-blue-black range, was well-known for its striking appearance, but also had an array of other properties that caught not only the eyes but also the noses of ancient observers.³² And some of antiquity's thinkers contemplating "purple" were just as concerned as the authors within this volume about the limitations and ramifications of promoting the aesthetics of vision over all the other senses, and ignoring the manifold qualities and properties of the rich material culture of Greece and Rome.

Pliny the Elder, author of an encyclopedic natural history of the Roman world, provides perhaps the most striking case of this. He began his account of purple in the shoals off the Phoenician Coast in the mid-first century CE: this was where local fishermen made it their daily business to catch thousands of murex snails which made their homes in the shallow reefs off the shore of modern Syria and Lebanon. From the throats of each of these creatures, a small vein would disgorge tiny drops of fluid which for hundreds of

29. I thank Cambridge University Press for allowing me to reproduce parts of this section from ch. 7 of my book, *Colour and Meaning in Ancient Rome* (Bradley 2009).

30. *De coloribus* 4 (τὰ δὲ βαπτόμενα πάντα τὰς χροᾶς ἀπὸ τῶν βαπτόντων λαμβάνει). On the *De coloribus*, see Gottschalk (1964). On Theophrastus, see Baltussen (1998). On Vitruvius' interpretation of purple, see Bradley (2009: 192–3); on Pliny, see *ibid.*, ch. 3.

31. Cicero, *On the Responses of the Soothsayers* 21.44; Ovid, *Art of Love* 3.179; Apuleius, *Metamorphoses* 8.27; Vergil, *Aeneid* 11.762–77; cf. 9.614–7 (on effeminate Trojan invaders in *crocum* and *purpura*). Saffron continues to be a characteristic dress colour for Hare Krishna followers around the world. In general, on Hare Krishna traditions and rituals, see Dwyer & Cole (2007).

32. On the history of purple as a status symbol in antiquity, see Reinhold (1976). For various different approaches to the dye in a wider perspective, see Longo (1998). For its role in the Roman history of colour, see Bradley (2009: ch. 7).

years transformed the elite clothing of Babylonians, Egyptians, Persians, Macedonians and Romans. In spite of the dye's complex political history and deep-seated cultural narratives, Pliny preferred to get back to basics. His account of purple (*purpura* in Latin) forms part of a book of *Natural History* not on pigments or costume arts, but one which examines the sea, a catalogue of marine phenomena and all the ways Roman luxury had exploited them. Pliny's account of purple, then, was a potent reminder of precisely where it was that all those senatorial purple stripes, triumphal garbs and emperors' clothes – those hallmarks of Roman *spectacle* – came from.³³

Pliny's purple-snail, sharing with the dye the name *purpura*, was an ugly and unpalatable lifeform, nurtured with mud, slime and algae. Pliny tells us (9.132) that fishermen trapped them by leaving baskets of cockles as bait, in which the snails would be snared by their greed (*aviditas*). Just a few sections earlier (9.104), Pliny had deplored the perils of the Roman appetite for seafood – the sea is most harmful to the stomach (*damnosissimum uentri mare est*) – but, he adds, that is nothing compared to the Roman greed for pearls and sea-purple dye. When it comes to greed, at least for Pliny, the purple snail and the purple Roman had much in common. Pliny's *purpura*, then, was a complex organic phenomenon with a life of its own, and a set of moral and behavioural tropes that matched the Romans who set it in such high aesthetic regard. Pliny then describes the production of the dye (133–4) in gruesome detail. The snail's vein was removed, mixed with salt, and boiled until most of the flesh had been deposited. Varying the mixtures and boiling times produced different shades of colour. The highest glory (*summa laus*) goes to that which resembled congealed blood. Another method diluted the dye with human urine to produce "that highly-praised paleness" (*ille laudatus pallor*), which meant the dyers could cheat the saturation process (*saturitas fraudata*) and save money. As an afterthought, Pliny adds that the fleeces devour (*esuriunt*, a particularly strong word) this diluted dye. The snail, the fleece, the dyer and the fashionable Roman – all shared this common greed (*avaritia*). Pliny goes to great lengths to demonstrate that purple was imbued with properties and characteristics that extended far beyond the chromatic.

Pliny interrupts his account of *purpura*, the eastern sea-snail, with an account of *purpura* the Roman colour:

fasces huic [purpurae] securesque Romanae uiam faciunt, idemque pro maiestate pueritiae est; distinguit ab equite curiam, dis aduocatur placandis, omnemque uestem inluminat, in triumphali miscetur auro. quapropter excusata et purpurae sit insania; sed unde conchyliis pretia, quis uirus graue in fuco, color austerus in glauco et irascenti similis mari?

[For *purpura*] the rods and axes of Rome clear it a path, and it likewise marks the dignity of boyhood; it distinguishes senator from equestrian and it is summoned to secure the favour of the gods. It illuminates every garment and on the triumphal

33. Cf. *De coloribus* 4, which attempts the same thing with "sea-purple" (τὸ ἀλουργές).

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robe it is blended with gold. For this reason, even the craze for *purpura* might be excused – but why the price of purple-shells, with the unhealthy stench in their dye, and their grim colour which resembles a gloomy and angry sea?

(Pliny the Elder, *Natural History* 9.127)

Pliny provocatively alternates between using *purpura* to mean the dress-colour “purple”, and *purpura* to mean the snail: to really appreciate the former, one must understand the latter. Earlier, he had prefaced his account of *purpura* (105) with an exclamation of his philosophical frustration: “What connection is there between the sea and our clothing, between the waves and waters and our woollen fabric?” The *Natural History* was a giant demonstration of how one could use perception and sensory categories to classify the world and derive knowledge. Ever since the Pre-Socratics, philosophers had wrangled over the difficult relationship between perception and knowledge – how far we can derive information about the physical world from what we see, hear, smell, taste and touch around us.³⁴ Some – like Plato – had argued that perception was a dim and unreliable measure of the world, others that perception and knowledge were inseparable (for Platonic “synaesthesia” as an ideal mode of perception, see Rosen, this volume). For Aristotle and the Peripatetics, colours were essentially real things that existed in the physical world. They were the fundamentals of sense perception, signposts containing crucial information about the environment. And it was the prerogative of the educated man to use all his faculties to make sense of that environment. This appears to have remained the dominant approach to perception through the Hellenistic era and into the Roman period, and is a theory deeply embedded in Stoic philosophy.

Pliny’s angst, then, is not just that of a conservative on his moral high horse. One of his aims was to reassert and reinstate Aristotelian physics, to demonstrate that traditional epistemology was being undermined by the Roman habit of taking bits of the world – like *purpura* and colourful stones – entirely out of context, and deriving satisfaction from visual aesthetics alone. Just as the principles of food are grasped for eating, Pliny goes on, he will train his readers to have thorough knowledge of the objects that perform such an important aesthetic role in their lives. But *purpura* was dysfunctional: the snail was inedible, the cloth perishable (124), and the dye unpleasant and malodorous (127). Mobilizing taste, touch and smell, the argument goes, can teach you that. Pliny’s fundamentalist assessment of purple posed to his elite Roman readers a pertinent rhetorical question: why the obsession? His mission was twofold: first, to reinstate *purpura* categorically as genus shellfish; secondly, to convince the reader that “purple” was not a particularly appropriate aesthetic experience for Roman indulgence.

Other early imperial writers, for similar reasons, were reinstating this connection between colour and shellfish, and the dye’s smell was a potent reminder of where it came from. A generation later Martial, satirising contemporary fads for exotic luxuries, described mattresses dipped in strong-smelling Sidonian purple (2.16.3) and, among a

34. On the ancient philosophy of perception see Porter, this volume. Bradley (2009: ch. 2) discusses various philosophical approaches to colour perception.

list of typical urban nuisances, clothes smelling of murex dye (*olidae ... uestes murice*, 1.39.32); elsewhere (4.4.6) he ranks double-dyed purple among the foremost foul smells in the city, and one epigram (9.63) jokes that sweaty upper-class women wear purple-dyed garments for their concealing whiff, and not for their colour (*delectatur odore, non colore*). So Martial's witty repartees and Pliny's sharp cultural commentaries were doing the same thing with this dye: both recognized that in the rich material culture of first-century Rome, coloured objects and coloured surfaces were regularly taken out of context and paraded for their abstract visual properties alone.

CONCLUSION

One could point to many other categories of ancient colour that were used to evoke synaesthetic qualities. The category *marmoreus* ("marbled"), for example, was most often used in Latin elegy to describe the necks and limbs of beautiful girls, and evoked the cold, smooth, statuesque qualities of these females as much as it evoked the white colour of marble: so *Ciris* 256: *marmoreum tremebunda pedem ... rettulit intra* (All-trembling, [Scylla] withdrew her "marble-cold" foot within [the robe]).³⁵ In a different sensory domain, Martial creatively describes the consequences of culinary overindulgence (12.48): gout (*carnifices pedes*, "feet that eat flesh") and a *color sulphureus* (l. 10). The latter expression, where *color* best translates as "complexion", clearly evokes the unhealthy stench as well as the pale colour of sulphur, along with its traditional associations with death (for the relationship between the senses and death in Latin epic, see Walters, this volume). The multi-sensory uses of colour explored in this essay represent just the tip of the iceberg: classical literature contains countless further examples of colour usage, where literary *ekphrasis* playfully explores the connections between visual categories and the olfactory, tactile, gustatory and even auditory properties of the world they describe. This "synaesthetic" approach to ancient perception, then, provides an innovative and far-reaching argument against the traditional claims about the poverty of Greek and Roman colour vision.³⁶

The implications of this complex sensory experience of the world are manifold. The ramifications it has for the ancient "spectacle", for example, are significant: whereas the experience of modern spectacles, such as Coronation ceremonies or the inauguration of Olympic Games, is normally dominated by the visual domain (just as our experience of music is increasingly confined to the auditory domain), the ancient spectacle, with its focus on the sophisticated aesthetics of the material world and the precise and systematic identification of features, objects, groups and individuals, was often a multi-sensory

35. On *marmoreus* as a category of colour, see Bradley (2006: 5–9).

36. The approach represented by this essay has been primarily literary and philological, although colour might also be explored as an index of materiality in art: see for example Rouveret *et al.* (2006). For a more recent wide-ranging set of approaches to ancient colour, see Carastro (2009).

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experience (at least in the educated elite discourse which describes it).³⁷ In a brilliant description of the procession of new magistrates, senators and people on 1 January to the Temple of Jupiter Capitolinus, Ovid's *Fasti* employs the full range of senses – sight, hearing and smell – to evoke the annual renewal of Roman authority and the reassertion of Roman imperial superiority:

A happy dawn arises: favour our thoughts and our hearts! Now must good words be spoken on a good day. Let our ears be free of lawsuits, and let mad disputes be banished forthwith; you malicious tongues, cease wagging! Do you see how the air shines with fragrant fires and how Cilician corn crackles on the kindled hearths? The flame with its own gleam beats on the gold of the temples and spreads a flickering light on the shrine's roof. In untouched garments there is a procession to the Tarpeian citadel, and the people themselves are the same colour as the festival. And now the new rods of office lead the way, fresh purple gleams, and the far-seen ivory chair feels new weights. Heifers, unbroken to the yoke, offer their necks to the axe, heifers that the Faliscan grass nourished on their plains. When from his citadel Jupiter looks down on the whole world, nothing that isn't Roman meets his eye. Hail, day of joy, and return forever happier still, day worthy to be cultivated by a people the masters of the world.
(Ovid, *Fasti* 1.71–88)

What Ovid presents is a giant synaesthetic experience mobilizing sight, sounds, smells and touch in order to gain a full and complete appreciation of the spectacle (for synaesthetic approaches to the cosmos by a different Latin poet, see Volk, this volume). Alongside the visual – rising dawn, flames, golden temples, magisterial purple, ivory chair, and so on – Ovid integrates the full range of senses: words of cheer; fires that scent (*odoratis*) as well as light up the scene; corn crackling (*sonat*) on the hearths; the gleam (*nitore*) of the altar's flames *beating* (*uerberat*) on the temple's roof; white festival garments (the same colour, Ovid points out, as the lucky *dies candidus* of the 1st January) exhibiting their untouched (*intactis*) state; the ivory chair feeling (*sentit*) the weight of the new magistrates and the unbroken heifers exposing their necks to be struck (*ferienda*).³⁸ Clearly this is not (as we might have expected) just an assortment of abstract colours and experiences, but a rich and varied appreciation of the precise sights, sounds and smells that reaffirm the Roman people as masters of the world, of “stuff” (*res*), as Ovid puts it.

This essay has surveyed a range of material – from Homeric verse to Greek medicine to blushing brides and smelly clothes. Although it would be going too far to claim that ancient perception was in any technical sense “synaesthetic”, we can identify a number of significant (and to us slightly unusual) examples of multi-sensory experience at work in Greco-Roman culture. Colour is something that those of us in the modern West normally attach to sight, but this essay has argued that, because of its close ties to objects in

37. I attempted a preliminary comparison of *ekphrasis* surrounding the Queen's Coronation of 1953 with descriptions of the Roman triumph in Bradley (2009: 212–20).

38. On comparable haptic approaches to geography in Herodotus, see Purves, this volume.

the environment rather simply to a part of the spectrum, the ancient colour experience could tap into smell, touch, taste and even sound. For Greeks and Romans, colour was a basic unit of perception, a source of information and knowledge, and a tool for accurately understanding the world around them. It was a primary index for describing an object, a person, a building or a landscape, as well as an evaluative category of "character" and personality. Using a single sense for all this was not always enough.

Although the model of five distinct senses is often credited to Aristotle, he would perhaps have been rather surprised by this accreditation. Aristotle himself developed a much more complex theory of the senses (and one that is not always consistent): at one point, he even suggested that all the senses can be reduced to touch because of the atomic films touching the eye.³⁹ And we certainly cannot assume in any case that Aristotle's view of the senses tallied with that of other ancient writers and thinkers; as Clements and Telò show in this volume, for example, the genre of ancient comedy represents a rather different approach to the senses. Even today, because it is so difficult to decide what we think a "sense" is, neurologists do not always agree about how many there are: claiming there are five senses is, one might argue, comparable to claiming there are seven colours in the rainbow.⁴⁰ The historian of the senses, then, needs to be open-minded and to accept when approaching the ancient world the possibility of system of perception, knowledge and understanding which could be very different from that which we employ in the modern West.

39. Aristotle's contribution to the five-sense model has been explored by Sorabji (1971); see also Johansen (1997). See also Porter, this volume.

40. The cultural development of a model of five senses has been explored by Vinge (1975); the ambiguities surrounded this model are persuasively examined by Classen (1993), esp. 2–11.

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