Introduction

Annette Kern-Stähler and Kathrin Scheuchzer

The Fuller Brooch, which is reproduced on the cover of this volume, is the earliest known representation of the five senses in art. The Anglo-Saxon silver disc brooch, held in the British Museum, dates from the ninth century and may have been crafted in the court workshop of King Alfred the Great. The central part of the brooch is decorated with five figures, who personify the five senses. The largest one is sight, prominently placed in the centre of the brooch, glaring at us with wide eyes. Around sight are four figures which can be identified by their gestures: hearing raises one hand to his ear, smell sniffs at a leaf, taste places his hand in his mouth, touch rubs his hands together. The five senses are surrounded by roundels depicting the material world of humans, animals, birds and plants. David Pratt has recently argued that the central figure of sight represents the mind’s eyes (modes eagan), the conduits through which wisdom is obtained, which feature prominently in Alfred’s writings. The mind’s eyes are supported by the four outer senses which apprehend the material world.1

The Fuller Brooch helps us understand how King Alfred and his court circle made sense of the world around them and how they understood the role of the senses in the acquisition of learning and wisdom. As such it is an invaluable part of what Holly Dugan calls the ‘historical archive of sensation’,2 an archive which has received increasing interest among a growing number of scholars who attempt to discover the full range of meanings that people in the past attributed to the senses.3

In what the anthropologist David Howes has called a ‘sensorial revolution’ in the humanities,4 the study of the senses has in the past three decades emerged as a dynamic field of investigation. The focus on the senses has in particular been at the forefront of the historical disciplines in their attempt to gain a

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3 See the introduction to Smith M., Sensing the Past: Seeing, Hearing, Smelling, Tasting, and Touching in History (Berkeley: 2008).
better understanding of how people in the past understood and engaged with the world. Based on the premise that sense perception is not merely a matter of neurological processes but that the ways we use our senses are informed by social values and shaped by culture, sensory historians explore the shifting meanings of the senses and changes in the historical representations of sensory perception. The present volume contributes to what Richard Newhauser terms ‘sensorial research’, which is not only concerned with the history of the senses and changing attitudes towards them but also investigates the ‘interplay between the sensorium and conceptual categories in their social and cultural embeddedness’. In the fields of medieval and early modern studies, sensorial research has seen a tremendous rise. In his introduction to the medieval volume of the Cultural History of the Senses, Newhauser refers to the ‘sensory turn’ as one of ‘the most important ongoing projects of medieval studies in the twenty-first century’.

This book includes medieval and early modern scholarship on the senses and thus brings to the fore changes and (more frequently) continuities across the medieval and early modern ‘divide’. By focusing specifically on English literature, language and culture across different historical periods, the essays collected in this volume provide a diachronic investigation of the functions and development of sense perception in a given spatial context. They uncover and spotlight breaks and continuities in the understanding of and engagement with the five senses of medieval and early modern English writers. The contributors re-examine a range of well-known texts belonging to diverse genres, such as the Old English Boethius and Marvels of the East, Wyclif’s sermons, 


medieval medical texts, Chaucer’s narrative poems, the York Plays, Foxe’s Actes and Monuments, Milton’s Paradise Lost and Margaret Cavendish’s Observations upon Experimental Philosophy. The focus is on the authors’ deployment of sense perception, sensory experience and their use of sensory metaphors as a way of addressing and articulating the social, cultural, political and religious issues of their time. Another emphasis of this volume is on reading and theatre as multi-sensory experiences, an emphasis which reflects the increasing scholarly interest in recapturing and reconstructing past sensescapes.8 Where it investigates the relation between sensory imagery and the underlying ideological concepts, this volume is not only in conversation with sensory studies in general and sensory history in particular but also contributes to related fields, such as disability studies, the history of religion, historical linguistics and the study of early modern science.

Throughout the period under investigation in this volume, classifications of the five senses were largely based on Platonic and Aristotelian theories of sense perception.9 Plato’s Republic and Timaeus as well as Aristotle’s De Anima and Metaphysics formed the basis for later discussions of the sensorium and provided a hierarchy of the senses that remained influential, though not undisputed, until well into the early modern period. Primacy was almost universally given to visus (sight), followed by auditus (hearing), odoratus (smell), gustus (taste) and tactus (touch).10 This hierarchy of the senses was connected by writers like Augustine and Alexander Neckham to the four elements in a way that reinforced and substantiated the primacy of seeing and the inferiority of touch.11 Accordingly, medieval and early modern writers traditionally took up the Aristotelian model and presented sight as the highest of senses,

8 On this trend and its pitfalls see Smith, “Producing Sense, Consuming Sense, Making Sense”.
9 Aristotle’s view that there were five, and only five, senses (De anima, book 111, chapter 1), has been disputed throughout history and is still a matter of debate. See Macpherson F., “Taxonomising the Senses”, Philosophical Studies 153 (2011) 123–142. Macpherson herself rejects the ‘sparse view’, which holds that there are only a small number of distinct senses, and argues for a ‘fine-grained taxonomy of the senses’ (141).
10 For a detailed discussion of the cultural construction of this hierarchy, see Jütte, A History of the Senses 61ff.
attributing predominantly negative moral connotations to the lower senses of taste and touch. Sense perception thus became carefully prescribed in that the lower senses were readily associated with bodily and carnal experiences and needed to be kept in check. The higher senses of vision and hearing, on the other hand, were often connected with spirituality and enlightenment. Following Augustine’s alignment of sight with light, the study of optics in the Middle Ages often associated vision with the perception of the light of God and it followed that bad eyesight presented a significant disadvantage in the engagement of believers with the divine. Defective vision, therefore, needed to be medically treated, but not without the invocation of God’s grace. As Edward Wheatley phrases it, ‘the religious model of disability inform[ed] the medical one’.

Disability studies scholars have long recognised the importance of investigating the ways in which physical impairments are socially and culturally constructed as disabilities. As Edward Wheatley and Irina Metzler have emphasised, the distinction between physical impairment on the one hand and its social and cultural construction as disability on the other is all the more necessary when studying past cultures. After all, while a physical condition (impairment) may remain unchanged from one culture to another, its perception is historically and culturally contingent, so that ‘one cannot […] speak automatically of all impaired persons as disabled at all times, in all places’. The senses were perceived as the windows to the soul and it followed that

13 Wheatley, Stumbling Blocks before the Blind 192.
15 Wheatley, Stumbling Blocks before the Blind 5–6; Metzler I., Disability in Medieval Europe: Thinking About Physical Impairment during the High Middle Ages, c. 1100–1400 (London – New York: 2006) 21. The distinction between impairment and disability has recently been challenged by a number of scholars who argue that the focus on the social construction of disability belittles the physical condition of the impaired. They suggest that the term ‘disability’ should be used for both the bodily condition and the effects of social disablement: disability, they argue, is seen as ‘something that is constructed by both bodily difference and social perception at the same time’. Eyler J.R. (ed.), Disability in the Middle Ages: Reconsiderations and Reverberations (Farnham: 2010) 8.
16 Metzler, Disability in Medieval Europe 9.
bodies with impaired sensory capacities contained impaired souls. The five senses, perceived as conduits of base human desires, were readily associated with the seven deadly sins, and sensory othering and stereotyping in medieval literature and culture often circled around notions of sensual indulgence and excess and were thus also connected to notions of sin. This relation between sensing and sinning allowed for a series of sensory metaphors intimately connected to questions of religiosity and piety.

In accordance with the Aristotelian hierarchy of the senses, in which sight is perceived as the highest of senses, blindness became a central concern for medieval and early modern writers and was often interpreted and construed as a physical sign of moral and spiritual corruption. Five essays in this volume are concerned with vision and defective vision. Katherine Hindley explores the Old English versions of Boethius’ *De consolatione philosophiae* and Augustine’s *Soliloquia*, which were probably produced by the same translator at the court of King Alfred the Great or even by King Alfred himself. With their abundant references to vision, these translations display a focus on sight which we already noted in the case of the Fuller Brooch, associated with the same court. Significantly, the Old English verbs *behealdan*, *locian*, *sceawian* and *beseon* were used not only to refer to physical sight but also, metaphorically, to mental sight, to wisdom and understanding. It is this semantic overlap between physical and mental vision which Hindley is interested in. She shows how the translator of Boethius’s *De consolatione philosophiae* and Augustine’s *Soliloquia* adapts his Latin sources to foreground the analogy between sight and understanding.

The results of Hindley’s study are particularly interesting in the context of recent research in cognitive linguistics, which has revealed that the vocabulary of physical perception is mapped onto the vocabulary of knowledge and feeling. Drawing on George Lakoff and Mark Johnson’s work on conceptual metaphor and embodiment, Eve Sweetser has shown that the conceptual metaphor ‘understanding-is-seeing’ forms part of a systematic cross-linguistic

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18 Metzler has shown that the attitude towards impairment in the Middle Ages was much more complex and that the connection between sin and physical disability was ‘not as straightforward as the secondary literature has tended to assume’. Metzler, *Disability in Medieval Europe* 8 and see further ibid. 38–64.
mapping between cognitive states and physical perception, in which the more abstract domain of experience (the mind) is conceptualised in terms of a more concrete domain of experience (the body).\textsuperscript{21} As Javier Enrique Díaz-Vera reminds us in his chapter on the Old English vocabulary of vision and touch, the large-scale conceptual metaphor ‘mind-as-body’ is subject to cultural variation and change through history.\textsuperscript{22} His study of Old English verbs of visual and tactile perception demonstrates that the cross-linguistic mapping of ‘understanding-is-seeing’, which was prevalent in the texts discussed by Hindley, is only one of many Old English vision metaphors. Vision in Old English, Díaz-Vera’s study demonstrates, is mapped onto a variety of verbs, many of which are not connected with cognition (e.g. ‘feeling an emotion-is-seeing’; ‘restraining-is-seeing’; ‘protecting-is-seeing’). At the same time, in Old English, not only seeing but also other perception verbs are mapped onto understanding, such as the conceptual mapping ‘understanding-is-touching’. Diaz Vera explores the paths of semantic change through which the Old English vocabulary of vision and touch perception was created and its metaphorical uses in Anglo-Saxon texts.

In accordance with the conceptual metaphor ‘understanding-is-seeing’, a lack of understanding and a refusal to see the truth was expressed metaphorically in terms of visual error and blindness. As Wheatley has shown, this is particularly poignant in ‘the use of blindness as an epithet applied to Jews for refusing to “see” the divinity of Jesus’.\textsuperscript{23} Similarly, the protagonists of many medieval accounts of healing miracles, which present blindness (and other afflictions) as a punishment for transgressive behaviour, are cured once they understand (‘see’) their erratic ways and thus regain vision both literally and metaphorically.\textsuperscript{24} These healing miracles portray both blindness and its cure as sudden transformations. Yet, as Beatrix Busse and Annette Kern-Stähl

\textsuperscript{21} Sweetser E., \textit{From Etymology to Pragmatics: Metaphorical and Cultural Aspects of Semantic Structure} (Cambridge: 1990). Of particular interest to historical studies of cross-linguistic mappings will be the forthcoming publication of the results of the “Mapping Metaphor with the Historical Thesaurus” project at the University of Glasgow, which explored changes in metaphorical thought and expression in the history of English: http://www.gla.ac.uk/schools/critical/research/fundedresearchprojects/metaphor/ [Accessed 17 June 2014].


\textsuperscript{23} Wheatley, \textit{Stumbling Blocks before the Blind} 19.

\textsuperscript{24} Metzler, \textit{Disability in Medieval Europe} 146–149; Wheatley, \textit{Stumbling Blocks before the Blind} 151–172.
argue, sightedness and blindness were not universally regarded as absolute categories in this period. Drawing on a corpus of selected medical texts, they retrieve a set of linguistic expressions which were used in Middle English to describe visual impairments and study their dissemination among less specialised audiences. Their analysis shows that there was in the late medieval period an awareness of various degrees of visual impairment, covering a wide spectrum between total blindness and perfect vision, and that linguistic constructions of partial sight had by the fourteenth century become part of the linguistic repertoire. Busse and Kern-Stähler draw particular attention to the fact that these intermediate stages are not (yet) expressed by specific technical terms, but rather by a range of lexico-grammatical strategies. They argue that many of these strategies suggest that in the late medieval period visual impairments were linguistically construed as disabilities and emphasise that it is crucial to include the field of historical linguistics in studies which set out to shed light on the change in meaning assigned to impairments, i.e. in studies on the histories of disabilities.

Questions of impaired or distorted vision have also played a prominent part in philosophical discourses surrounding sensory experience, beginning with Plato’s cave allegory in the Republic. Our (in)ability to differentiate between reality and illusion, the real world and the shadows thereof, has often been tied to visual sense perception. With the rise of optical instruments designed to improve vision in the seventeenth century came a renewed questioning of the reliability of the sensorium. As Virginia Richter shows, the distortion of vision could also be interpreted as the result of scientific attempts to enhance it. This is how Margaret Cavendish, Duchess of Newcastle, reacted to the idea put forward by the newly founded Royal Society for the Improvement of Natural Knowledge (1660) that our senses are defective and in need of improvement. Early modernity saw great innovations in optical instruments, and Robert Hooke and his fellow members of the Royal Society advocated their use to supplement the sense of sight. What to Robert Hooke, who in his Micrographia (1665) praised the microscope as an instrument which helps us to discover a ‘new visible World’, was an improvement of sight, was to Cavendish an interference with, and a distortion of, the sense of sight. While for Hooke the senses are deceptive, for Cavendish it is the technical apparatuses designed to improve them that conduce to error. As Richter argues, instead of discovering new worlds by the microscope, Cavendish resorted to creative world-making by means of fiction.
The enhancement and distortion of sight is also at the centre of Tobias Gabel’s essay on John Milton’s *Paradise Lost*. Milton, who was almost completely blind by 1652, was fascinated by the development of new optical instruments like the telescope. However, Gabel is not so much interested in questions relating to the enhancement or distortion of vision by these apparatuses but rather in the (temporary) improvement of human vision by God’s grace as promised by God to mankind (Book III) and in the distortion of spiritual vision as a result of the Fall of the Angels. Gabel looks at three types of vision in *Paradise Lost*: divine vision, angelic vision and (postlapsarian) human vision. He argues that the latter two types of vision are by no means fixed: the blind speaker receives temporary divine vision; the fallen angels lose their spiritual vision.

With Dieter Bitterli’s contribution, we move from divine, angelic and human sight to monstrous sight and from the enhancement of vision by God’s grace or by the use of optical instruments to visual and other sensory acuities in the monstrous races. Bitterli explores the text and images of the earliest known version of the Old English prose treatise *The Marvels of the East*, which survives in the *Beowulf* manuscript. It is this version of the *Marvels* in particular, he argues, which defines the creatures of the east as ‘other’ through their oversized sensory organs and the heightened sensory qualities associated with them. Yet, while the unfamiliar sensory qualities of the creatures from the east serve as codes of alterity, creating distance between the exotic world of the *Marvels* and its readers, at the same time the text and its images encourage their readers/beholders to engage their own senses in order to apprehend the strange world presented to them.

Can the senses be trusted? While the interest of Robert Hooke and other advocates of the New Science in this question was driven by empirical enquiry, medieval writers discussed this question within the framework of the moral evaluation, or ethics, of the senses. As Constance Classen and David Howes put it: ‘Equally significant to the ways the senses are practiced are the ways in which a society decides that they should not be used: when and what we must not see, or touch, or taste’. Women in particular were advised to shield their senses. A large number of late medieval and early modern texts was informed by, and promulgated, the Aristotelian notion that women were weak by nature. According to medieval commentaries on Aristotle, women

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were inclined to succumb to temptation, and homiletic and conduct literature taught them ‘precautions’ against their ‘natural instincts’ and warned them about the moral dangers of the senses.\textsuperscript{28} The \textit{Book of the Knight of la Tour-Landry}, for example, which was printed in English translation by William Caxton in 1484, admonished them to be ‘ferme’ to the world.\textsuperscript{29} The author draws on Eve as a negative exemplum who sinned through looking at, touching and eating the forbidden fruit.\textsuperscript{30} Eve’s use of the senses was often juxtaposed to that of Mary, who in the medieval imagination stayed indoors when Joseph was away and used her senses wisely.\textsuperscript{31}

As much as sense impressions could be conducive to devotion, they could be morally dangerous. Likening sense impressions to ‘pure and impure embraces’, Augustine divided them into licit and illicit pleasures.\textsuperscript{32} Newhauser has pointed out that because the sense organs were not seen as passive receptors but as active agents in the process of perception, the senses were ‘a vital element in the formation of the individual’s moral identity’.\textsuperscript{33} Increasingly after the Fourth Lateran Council (1215), medieval pastoral theology was driven by the need to educate and control the senses and created a ‘Christian ethics of the senses’.\textsuperscript{34} The fourteenth-century pastoral manual \textit{Instruction for Parish Priests} by John Mirk, for example, asks the priest to probe the confessor in order to find out if any of the five senses has ‘tysed ϸe to sinne’ (enticed you to sin).\textsuperscript{35}

As \textit{Sean Otto} argues, the sermons by the fourteenth-century preacher John Wyclif are steeped in the tradition of medieval pastoral literature, which warned of the moral dangers of the senses. Otto shows that Wyclif’s sermons

\textsuperscript{28} Kern-Stähler A., \textit{A Room of One’s Own: Reale und mentale Innenräume weiblicher Selbstbestimmung im spätmittelalterlichen England} (Frankfurt et al.: 2002) 35–41.


\textsuperscript{30} Ibid., 55–58.


\textsuperscript{33} Newhauser, “Introduction: The Sensual Middle Ages” 22.


on the five senses expose his traditional views of the need to control the senses in order to avoid temptations that lead to sin and thus supports recent research which sees Wyclif more as a medieval theologian than a proto-Reformer.

**Richard Newhauser** shows that Chaucer participated in the tradition of the moral education of the senses. In the “Parson’s Tale”, hell is constructed as a place in which the sinner is punished by a violent assault on all the senses, a multisensual punishment which intensifies the torment meted out there. By contrast, the ideal garden in *The Parliament of Fowls*, a ‘heaven on earth’, offers multisensorial pleasures. Chaucer, Newhauser argues, relies on the multisensual in conveying the intensity of sensation which can be found in his constructions of places outside human experience, the realms of heaven and hell.

According to **Jens Martin Gurr**’s reading of *Paradise Lost*, it is the inability to control our senses which Milton holds responsible for the failure of the English Revolution. Gurr, who reads Milton’s *Paradise Lost* politically as a coded account of the failure of the English Revolution, argues that Milton expresses his views on the inability of ‘the people’ to subject their senses to the control of reason and to handle freedom in the account of the Fall of Adam and Eve and their inability to control their senses.

In the medieval period, the insistence on controlling the senses stands in stark contrast to the richness of sensory experience offered in the Church. As Wietse de Boer and Christine Göttler have pointed out, ‘[a]t the intersections between [the secular and the sacred] stood the five senses – the portals of the soul, the links between the inner and the outer worlds’.36 In this context, the senses function as an ‘interface’ through which the sacred can be experienced.37 Among the best-known examples of this is Augustine’s description of his conversion to Christianity in terms of spiritual sense perception. His account in the *Confessions* focuses on the different ways in which God makes himself perceptible to man. Augustine’s experience of the divine is channelled through the five senses, allowing him to see, hear, smell, taste and touch God beyond the realm of earthly experience. In a similar vein, Thomas asks for a sensory experience of the risen Christ despite the latter’s insistence on belief as a nonsensual concept. Thomas requires physical proof of Christ’s resurrection and his faith is thus rooted in sense experience. The senses became a central concern in the medieval Church, not least because the Catholic Mass was centred on the Elevation of the consecrated Host and the importance of perceiving

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it visually. Eric Palazzo has recently emphasised the sensory dimension of medieval liturgy and the sensoriality of liturgical objects which was activated during ritual performance. The Church offered its faithful a rich sensual experience: touching relics, listening to the word of God and to heavenly music, looking at and tasting the body of Christ in the Eucharist and smelling frankincense were part of the multisensoriality of liturgy. The sweet scent of saints and their relics and the bad odours associated with heresy and moral corruption additionally fostered the notion of sensual spirituality in Roman Catholicism.

As Rory Critten and Annette Kern-Stähler’s joint contribution to this volume shows, medieval productions of Corpus Christi plays readily drew on this centrality of the senses in the religious sphere and reinforced the idea of a sensory landscape connected to heaven, hell, the saints and the devil. Like liturgy, which had a profound influence on medieval drama, the production of these plays offered a pan-sensory appeal to its audiences. Focusing on the relatively understudied sense of smell, Critten and Kern-Stähler reconstruct the smell-scape of the York Corpus Christi Play. Analysing references to smell and their production in the York play-text alongside records of analogous drama and the visual arts, archaeological and historical records of medieval York and contemporaneous ideas about sense perception, they bring to the fore the play-texts’ realisable potential to evoke the sense of smell or even to produce odour on stage. The multisensory experience of theatre also forms the centre of Farah Karim-Cooper’s chapter on the ‘sensory body in Shakespeare’s theatre’. Karim-Cooper argues that the experience of theatre-going in the early modern age was first and foremost a tactile one. She explores the sensory body’s forms of contact with the playhouse and the ways in which dramatic performance and its reception are underpinned by the sense of touch.

It was the drama’s appeal to the senses which increasingly became the subject of dispute. As Critten and Kern-Stähler point out, an awareness of the sensory appeal of dramatic performance underlies the criticism of the much-quoted author of the early fifteenth-century anti-theatrical tract, *A Tretise of Miraclis Pleyinge*, who saw in the attendance of dramatic performance a misuse of the senses. These anxieties were augmented during the Reformation. As Matthew Milner reminds us, the reformers abhorred pre-Reformation worship as ‘excessively sensual’. Karim-Cooper argues that the moralistic diatribes

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against the theatre articulate an analogous unease with ‘sensory gluttony’. Like
the Roman Catholic Mass, theatre was condemned in moralist discourse as
offering a multisensory experience to its audience, with the sense of touch
being the one most commonly evoked.

With the advent of the various Reformation movements, the sensescape
was transformed in that the traditional objects of sense perception, such as
the saints’ relics and the transubstantiated Host, came under attack by the
reformers and early Protestants. As several scholars have argued, the focus on
seeing in the Roman Catholic Church was shifted to aurality as a consequence
of the Protestants’ return to the Word of God, expounded in the sermon, as the
primary source of salvation.41 As a result, reformers and Protestants have often
been associated with austerity and frugality. Yet, Milner’s study on the senses
in the Reformation has shown that for sixteenth-century evangelicals, ‘[t]he
senses were the means by which God made Himself known: without eyes and
ears believers were literally […] deaf and blind when it came to revelation’.42
Spirituality was still a sensual experience in the centuries following the
Reformation, then, but in an environment of continued doctrinal dispute the
senses needed to be carefully controlled and proper sensing clearly demar-
cated from idolatry and heresy. As Peter Burke maintains, ‘[t]he debate on the
primacy of different senses in different periods now seems rather sterile’,43 and
recent scholarship has shown that there was more continuity than previously
assumed.

Kathrin Scheuchzer confirms this by showing that John Foxe in his Actes
and Monuments does not break with the idea that the senses bring the faithful
into contact with the sacred; nor does his martyrology advocate, or show signs
of, asensual frugality. On the contrary, it abounds with a rich sensory language
and promotes the use of all five senses in the spiritual experience of the Word
of God. It is thus not the use of sense perception as such which changes with
the Reformation, Scheuchzer argues, but the object of sense perception: the
Scriptures, not images and relics, emerge as something that can be seen, heard,
smelled, tasted and touched.

Walter Ong argued long ago that the rise of the printing press in the
Renaissance continued to foster the superiority of sight over hearing.44 Never-
theless, this renewed focus on vision does not mean that the other senses lost

(Cambridge: 2010).
42 Milner, The Senses and the English Reformation 192.
121. See also Jütte, A History of the Senses 64ff.
their importance. On the contrary, Mark Smith argues that the elevation of visus in the 'print revolution' was far from universal. As Howes points out, 'any period of great cultural change will be a time of sensory confusion, for social revolutions are always sensory revolutions'. Scholars have traced the development of the senses through the ages, from classical antiquity to modernity, and through a range of such social revolutions and paradigm shifts that have led to continued revaluation of the senses and their meanings. With the rise of anatomical illustration in the Renaissance, for example, sight became more explicitly linked to knowledge than it had been in previous centuries. During the Age of Enlightenment, Constance Classen points out, the senses gradually lost their theological import and were increasingly subject to scientific and philosophical enquiry. In our own day, scientists are rapidly making new discoveries about the nature of perception, which challenge some of the traditional views of the way we sense the world.

Despite these rapidly changing attitudes towards the senses, not all underlying assumptions about, and concepts surrounding, sensation were revised, let alone supplanted. As Elizabeth Robertson concludes in her response to the chapters in this volume, both medieval and early modern writers shared the basic understanding that 'the senses extend the reach beyond the boundaries of the self'. They were constructed and presented as conduits or channels through which the self experienced the outside world, was able to perceive the divine and could make sense of encounters with others. As such, the five senses presented a certain danger that needed to be kept at bay and at the same time offered intriguing ways of engaging with the material and spiritual world. Many of the underlying assumptions about sense perception, based on an Aristotelian understanding of the soul, held sway all through the Middle Ages, the centuries following the Reformation and beyond. Smith has shown, for instance, that olfactory othering, which can be traced back to medieval associations of religious aberration with bad odours, was a central aspect of the Nazis’ marginalisation and dehumanisation of Jews and also fostered

45 Smith, Sensing the Past 2.
46 Howes, Empire of the Senses 11; emphasis added.
48 Classen, Worlds of Sense 4.
50 “From Gateways to Channels: Reaching towards an Understanding of the Transformative Plasticity of the Senses in the Medieval and Early Modern Periods” (in this volume).
51 See also Classen, Worlds of Sense 79ff. and Jütte, A History of the Senses 94f.
prejudices against African Americans in the United States.\textsuperscript{52} Classen investigates what she terms ‘olfactory codes’ and their role in the process of othering, concluding that ‘the dominant group in a society ascribes to itself a pleasant or neutral smell within this system of olfactory classification’.\textsuperscript{53} The senses, loaded with a range of long-standing connotations and meanings, thus pervade modern culture as much as they permeated medieval and early modern everyday life; from antiquity to the present they engage key questions of identity construction, religion, medicine and science.

What the future may hold we do not know, of course, but Hans Moravec from the Carnegie Mellon Robotics Institute in Pittsburgh predicted in 1997 that the ‘[s]enses, and the instincts using them, are increasingly liabilities’ and that ‘all our senses will become obsolete’ in a world in which our lives are played out in cyberspace rather than in what Moravec calls ‘a rough physical place’.\textsuperscript{54} The world we live in, he argues, has become tame in comparison to the ‘wild’ times of the past. Nevertheless, ‘[h]umans need a sense of body’, he writes, and a computer playing chess ‘knows nothing about physical chess pieces or chessboards, or about the staring eyes of its opponent’.\textsuperscript{55} Whether or not the senses have a future will, therefore, depend on the preservation of a sensory culture that takes its roots in classical antiquity and was cultivated throughout the Middle Ages and early modernity.

\textbf{Selective Bibliography}


\textsuperscript{55} Moravec, “The Senses Have No Future” n.p.


Eyler J.R. (ed.), Disability in the Middle Ages: Reconsiderations and Reverberations (Farnham: 2010).


