How Do We See?

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How do we see? And how do we learn to see? These two questions, despite being highly similar, are far from identical. An increasing number of mid-Victorian commentators, who considered the act of looking from the entwined perspectives of science and culture, investigated them. They explored and explained connections between the physiology and psychology of vision; the relationship between looking, attention, and ocular selection; and the variations in modes of seeing that come about through occupation, environment, and the spaces of sight. These, too, are the issues at the heart of the stimulating essays in this issue of Victorian Network.

In 1871, the journalist Richard Hengist Horne brought out a strangely hybrid volume: The Poor Artist; or, Seven Eye-Sights and One Object. The narrative of a struggling painter, first published in 1850, was now prefaced by a ‘Preliminary Essay. On Varieties of Vision in Man.’ Horne acknowledges that the passages strung together into the essay ‘have been jotted down at various intervals, and in various parts of the globe’¹. Indeed, they constitute a collection of musings on the subject rather than a sustained argument, as though Horne’s own attention was incapable of resting steadily on a designated object. But he also recognizes that the variety of examples and exceptions he discusses precludes arriving at any firm generalizations concerning the act of visualization – apart from the fact that we may extend the principle of variety in vision to the other senses. Just as we all see differently, so ‘neither, perhaps, do we taste, feel, hear, or smell exactly alike, and that the external sense, while they have each a common ground of generality in their action, have at the same time a special variety peculiar to each individual’².

So what causes individuals to see so differently from one another? For Horne, some people are, quite simply, exceptionally gifted at looking. He cites his experience of taking a walk with Charles Dickens, who appeared to see things at a glance or with ‘half an eye’ – he never ‘looked hard at anything. He had no need, His was one of those gifted visions, upon which objects photographed themselves on the retina in rapid succession’.³ Horne’s remark is, of course, notable for naturalizing the vocabulary of technology: part of the reason for the increased self-consciousness around the act of looking in the mid and late

² Horne, Poor Artist, xxxix.
³ Horne, Poor Artist, v-vi.
nineteenth centuries lay in the increased use and availability of lens-based instruments, from cameras to microscopes.

In other cases, differences in the make-up of the eye itself result in different types of vision. Colour-blindness provides an obvious case in point, and as a phenomenon, causes Horne to speculate whether or not we can ever say with confidence that we see exactly the same colour as someone else. Varieties in physiology also account for some people being unable to distinguish perspective as precisely as others, or failing to see gradations of light and shade. And this range in visual abilities doesn’t even take on board non-human capacities: Horne reminds us of the far-off sight possessed by eagles and pigeons and seabirds; the rapidity with which a robin or swallow can make out the tiniest of moving objects; the power that felines have to see in the dark; the tendency of horses to ‘vividly imagine preternatural phantoms’.

Benjamin Morgan, in his important recent study The Outward Mind: Materialistic Aesthetics in Victorian Science and Literature (2017), does a terrific job of drawing connections between the nineteenth-century interest in the connections between body and mind, and the neuroaesthetics of today. He emphasizes corporeality and materiality, as distinct from abstract theories of perception and cognition that float free of actual bodies and their worldly experiences. In his historical account, he stresses the influence of Grant Allen – that relentlessly productive popularizer – and his Physiological Aesthetics (1877) when it came to disseminating the physiological psychology of Alexander Bain and others. Horne, likewise, was notable as a popularizer of theories of vision. But he was also important in disseminating the idea that even if we start off as what we might term lazy lookers, we may learn to see better. Some professions demand and foster particular types of looking: a sailor can make out, through experience as well as long sight, a particular type of ship on the ocean that might seem just a speck, a blur, to most of us. Certain types of cultural consumption, too, make their own demands: ‘The eye must learn to see pictures, as well as the ear to hear music’ – although not everyone will be able to train their vision and mind to the same degree. And Horne’s essay is significant, too, not just because he recognizes the eye and mind as embodied, but because he lays stress on the importance of where one does one’s looking – in other words, on the locational, spatial, and social aspects of vision. That same ‘sailor who can distinguish a minute speck on the remote horizon (quite invisible to a landsman), and determine that it is a ship of two or three masts, and with certain sails set, might easily be run over at a noisy street-crossing’.

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6 Horne, Poor Artist, xxvi.
7 Horne, Poor Artist, ix
Professional looking

One sees what one needs to see; what one expects to see; what one is trained to see; what grabs one’s attention in the most pragmatic of ways. In the introductory essay to The Poor Artist, Horne lamented how people, ‘for the most part, see very little of what is before their eyes […] the great majority of our race make but a poor, or quite a limited, use of the wonderful organ of sight […] they only, in general, see what concerns their own interests, purposes, and ordinary being’.  

It’s tempting to speculate what the connoisseurs about whom Alison Clarke writes in her essay ‘In a Better Light: Vision, Spatiality and the Connoisseurial Practices of the National Gallery, c. 1875-1916’ saw when they exited their central London workplace. Imagine them emerging into the streetscape depicted by William Logsdail in his St Martin-in-the-Fields, 1888, Tate Gallery. Would they, like Logsdail, have noticed the acute contrasts between rich and poor; the sellers of oranges and flowers; the newspaper vendor; the milk churn and beer barrels being transported on different carts; the central presence of the police, both mounted and on foot – a direct reminder that Trafalgar Square, home both to the National Gallery and the church of St Martin-in-the-Fields, had very recently been the site of the so-called ‘Bloody Sunday’ protests that were the occasion for a significant display of police brutality? Would they, like Logsdail, have been struck by the greasy shine on the wet paving, the rust stains below the lamps on the church’s pillars, the gleam on the mounted policeman’s polished sabre? In a twist on this question – what did the public, as opposed to specialists, notice when exiting the National Gallery? Numerous street artists, whose income depended on their skill at chalking pictures on pavements, knew the rewards of replicating images from the gallery on the sidewalk slabs immediately outside, where they would be likely to be noticed by those who had just seen the originals on the gallery’s walls.

But most of those visitors had, most probably, not ‘seen’ the Botticelli or the Raphael inside in the same way that the Gallery’s curatorial staff had learned to look at them. Clarke’s essay explores how a connoisseur learns to ‘see’; that is, to arrive at judgements about attribution and authenticity, and to assess qualities like ‘beauty’. Such a visual education happens over time: it entails developing a mental card catalogue that expands and adds details as a result of an individual’s exposure to different images. This storage of information in the long-term memory allows for the development of connoisseurial sight as a diagnostic

8 Horne, Poor Artist, i-ii
tool. Since it improves over time and with practice, it is not something that can be taught: expertise comes through repeated viewing of art works.

On the surface, if it is accurate that one learns to ‘appreciate’ art through a process of constant exposure and comparison, anyone could learn to be a connoisseur. But what needs to be underscored is the means by which this knowledge is conveyed and passes into what Clarke terms ‘a complex trust network’. Instantly, of course, this raises questions about institutional access and privilege, whether the institutions at stake are state or civic affairs, like museums; or commercial galleries; or circles of friends who also happen to be collectors of paintings or porcelain. And here, the connection between connoisseurial activity and assessing the ‘value’ of art is inescapable: this assessment rarely stops with the artwork having achieved some notional benchmark – demonstrating ‘beauty’, say. The professional judgements made by museum professionals, dealers, auction rooms, and insurance agents are directly linked to the evaluation of art in monetaristic terms. ‘Seeing’, in such a context, is inescapably tied to cultural conditions and conditioning: there is no space for the affective, subjective, individualistic dimension of aesthetics. Nor does the Victorian interest in the capacity for art to give pleasure, and the possible somatic basis for this pleasure, come into play.10

Clarke valuably brings home, too, how looking at art works is linked to the material conditions of viewing. One cannot fully understand the circumstances in which Victorians, or people in any period, reached aesthetic judgements without considering where such evaluations were made. The development of the connoisseurial gaze Clarke describes was only possible if different works of art could be seen side by side, with lighting that allowed one to look carefully, and with proximity to a reference library containing photographs and engravings of other images. Mobility mattered, too – the railway played its part in the establishment of this gaze, since it enabled museum professionals to travel and view other works in both private and public collections, deepening their knowledge database and improving their powers of comparison.

‘[C]onsidering the space in which a connoisseurial decision was reached’, as Clarke puts it, gives one a fuller understanding of the practices of connoisseurship itself. It also highlights the difference between the viewing conditions enjoyed by museum professionals and those encountered the art-consuming public more broadly. The former have the privilege of being able to take something off a wall to examine it carefully; of handling it, thus adding touch to sight, and by the very end of the century, requisitioning scientific tests, like

10 Morgan, The Outward Mind. Drawing my examples from Morgan, I have in mind here such things as the researches of paint manufacturer George Field and the interior designer David Ramsay Hay, and their modeling of color harmonies and form; or John Addington Symonds Sr.’s research on the aesthetic pleasures that can result from particular movements of the eye; or Vernon Lee and Kit Anstruther-Thomson’s investigations into how somatic responses to form, pattern, and rhythm play a role in how we relate to art.
pigment analysis and radiography, that could make the invisible visible. For a member of the viewing public, however, they had to contend with paintings that might be hung far above the line of sight – a frequent complaint of critics visiting the Royal Academy exhibitions; or with the shadows, reflections, and unevenness caused by the artificial lighting in galleries, or by a canvas poorly situated in relation to the prevailing direction of natural light. All of these variables bring home, too, the difference between the training of a museum professional, and that of a critic for the press.

Object lessons

Alison Clarke’s essay offers an exemplary case study of Richard Horne’s point that people who occupy certain professions learn to see in particular ways. Andrea Korda’s piece ‘Looking and Learning in the Victorian Classroom’ approaches the issue of how someone might develop the facility of sight in a very different, and far less specialized way – albeit, likewise, in a designated space. Korda’s interest is in vernacular ideas about vision and visuality, and how they circulated within the growing fields of educational theory and educational psychology. As she rightly points out, what she offers is evidence of adult beliefs and anxieties concerning visuality: we have minimal evidence of children’s experience in learning according to the pedagogical methods that she outlines.

Korda directs our attention to the ‘object lesson’, a pedagogical method developed by Johann Heinrich Pestalozzi at the turn of the nineteenth century, which involved the first-hand observation of common objects with the aim of cultivating habits of attentive observation and inquiry. In other words, young students were encouraged to use observation to ask questions, rather than to obtain information. Such object lessons were deliberately, and clearly, distinguished from ‘information lessons’, forms of mind-numbing rote learning that, by the late nineteenth century, became central to the school curriculum.

What did the Victorians who followed this instructional model think that such taught observation could accomplish? First, looking to cultivate their students’ perceptual abilities, they hoped to develop active, not passive, minds. Second, they underscored the fact that visual perception does not exist in isolation but as part of an embodied process: seeing is accompanied by the sense of touch, of taste, of smell – and to become aware of this is to develop one’s curiosity about how the senses operate, and how one’s own thought processes respond. The insights generated may well reach beyond the visible world. One of the best known of object lesson texts books was Elizabeth Mayo’s Lessons on Objects (1831), which was frequently reprinted on both sides of the Atlantic: for her, to look attentively and at length on a common object found in the natural world was to learn of God’s suffusing presence.11 On the other hand, as Korda points out,

labour tends to be considered invisible – there is no mention of who gathered the sugar that the student is encouraged to observe. Reflection, for Mayo, appeared to have its limits.

The aim was not to encourage subjectivity: there’s nothing here of Walter Pater’s aesthetic imperative in the Preface to *The Renaissance* (1873) that the end of criticism ‘is to know one’s own impression as it really is’. But additionally, and importantly, this cultivation of objectivity through close and curious scrutiny had another purpose: one that resonates strongly with today’s concerns about learning in conditions of constant distraction. To observe carefully was to master the onslaught of perceptions; and to cultivate the powers of sustained, and voluntary attention. And yet, as Korda explains, such ideas about the importance of disciplining the attention – articulated, for example, by one of the most influential of Britain’s psychologists, James Sully – clashed with the views of those who emphasized the importance of capturing spontaneous attention, especially when it came to very young children. The more eye-catching materials were put in front of them; the more visual and other sensory surprises were made part of the learning process, the more their curiosity was piqued.

**Fictional Sightlines**

The other two essays in this issue shift the terrain. From discussing what goes on in actual spaces inhabited by factual human beings, we move to fiction: to representations of knowable locations, like London streets and theatres; imaginary settings; and invented characters. New questions are raised; how does fiction invite and instruct one to see? Does it reproduce prevalent conventions? What viewing positions are privileged? Does it offer the opportunity to interrogate and critique theories of vision? And how does it navigate imaginary space traversed by the gazes and glances of imagined viewers?

James Green’s ‘Seeing in the City: Modern Visuality in M. E. Braddon’s *The Trail of the Serpent* (1860)’ argues that popular fiction offers a site in which a contested complex of visual theories and practices are played out – theories that have been developed in our own time, but that hark back to the concerns of Victorian thinkers. He reads Braddon’s sensation-cum-detective novel, that was first published in 1860 as *Three Times Dead*, then condensed into a less sprawling form in 1864, as one in which the distinction between spectacle and surveillance is often blurred. It reproduces the conditions of modern, metropolitan visuality in both Paris and London; it makes the reader the spectator of visual entertainments from the opera to Punch and Judy shows; it implicitly references the new forms of urban visibility made possible by gas lighting; it shows how the eye may readily be deceived – the plot of the novel depends on impersonation and

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disguise, and the manipulation of visual expectations. Suspense is sensation fiction’s hallmark, and it frequently depends on the narrator temporarily concealing things from the reader, just as it does on characters’ disguises and doubled identities. In this way, pleasure and villainy are stylistically linked.

Categories are also disrupted in this particular novel when the lingering tourist gaze, mediated through methods of looking encouraged through guidebooks, suddenly mutates into investigative scrutiny and identification. We are made to ask whether the difference between tourist spectatorship and detective surveillance – both modes of viewing involving a heightened awareness of the visual – simply rests in the ends to which they are put, since one individual may occupy both roles.

The Trail of the Serpent explores the positions of both looker and looked-at. In considering both London’s crowded streets and the sight lines of Her Majesty’s Theatre, Green productively calls upon Chris Otter’s concept of ‘oligoptic space’, that is, space that ‘lacks a central, dominant viewpoint’, or that consists, rather, of a multiplicity of interconnected visual spaces. To be sure, sightlines may be constructed to encourage certain type of spectatorship – in Her Majesty’s, viewing is ostensibly far more controlled than in the crowded streets outside, since the building is designed so that the stage can be seen from a whole range of angles, and so that the spectators, especially those in the tiered boxes, can scrutinize each other. With gazes traveling in different directions, the interior architecture encourages rhizomatic vision – augmented, when necessary, with opera glasses.

But this novel dramatizes, and makes the reader self-conscious about, the complicated dynamics that exist between viewer and viewed, and demonstrates how they are by no means reciprocal. A detective can watch a suspect apparently undetected himself, because he is a member of the undifferentiated masses in the crowd – and he can continue this observation from a crowded theatre pit, looking up at the upper-class patrons in elevated seats. As Green points out, this is a pleasing inversion of conventional power relations, and one that might particularly have resonated with the readers of the Half-Penny Journal, in which the novel was serialized in 1864.

The Trail of the Serpent encourages the reader to regard looking as connecting entertainment and work, enjoyment and analysis: we take pleasure from the ‘foregrounding’, as Green puts it, ‘of the indeterminacies that inhabit modern visuality’. Recognizing and acknowledging these indeterminacies is something that imaginative fiction, especially fiction that pivots on disguise and

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concealment and detection, is particularly well placed to bring out. If institutional practice and classroom teaching encourage clarity of vision and certitude of interpretation – focused, purposeful, pragmatic looking – this novel is representative of the many mid-Victorian texts that allow us to take pleasure in the suspense that uncertain vision can produce.

Looking Past the Surface

Surfaces, as we all know, can be deceptive. As Green reminds us when writing about *The Trail of the Serpent*, nothing brings this home like the waxwork of the villainous Jabez that is put on display after his death in Madame Tussaud’s, where young girls think he must surely have been the victim of false evidence: he is too beautiful to have been so cruel. This incident succinctly demolishes the whole science of physiognomy – of judging character by outward appearance. George Eliot had made much the same point the previous year in *Adam Bede* (1859), when Adam disastrously misreads Hetty Sorrel’s pretty face – as Ariane de Waal recalls in ‘Looking Both Ways: *Middlemarch*, True Skin, and the Dermatological Gaze’.

This essay does a wonderful job of complicating any simple belief in a visible/invisible, or surface/depth binary distinction that we, or the Victorians, might be tempted to hold. Rather, the microscopic visualization practiced by dermatologists allows us to see the skin itself not so much as a container with only the outer side visible, but as something layered, three-dimensional, and porous. Such a visualization of the skin’s properties was not just found in specialist manuals, but in nineteenth-century periodicals: part of the wonder that readers were invited to find in the visible world revealed by optical instruments. What’s truly innovatory about this piece, however, is how De Waal expands the revelations displayed in a cross-section of skin to the narrative structures of *Middlemarch*, arguing that the standard, familiar visualization of ‘the skin’s three layers might have left its imprint on the literary construction of layered bodies and characters’, and that ‘Eliot’s characters pry into one another’s depth only to uncover more surfaces, for even “[s]ouls have complexions too”’.

For a Victorian dermatologist, skin was not a rigid boundary, but connected the outer layer of the body to every molecule within. Furthermore, the symptomatic flow worked in two directions. Rather than the skin’s surface revealing the combination of humours (hot, cold, moist, dry – themselves a guide to character traits), as post-Hippocrates Western medical practitioners had believed until at least the early eighteenth century, outward manifestations reached within to glands, blood vessels, and nerves. Clogged pores, a phenomenon linked to the importance of skin cleanliness and sanitary reform, could have unwanted consequences. Casaubon’s skin, in particular, expresses a complex set of unhealthy signs, which simultaneously tell us about his bodily
health and his emotional discomforts. Yet even if he provides a conspicuously convincing case study in this respect, his physical tissues, and their relationship to the literal and figurative fibres of his being, are but one example of the sustained interplay of inner and outer self that characterizes this novel’s weave.

Furthermore, as de Waal shows us, to look at the skin, whether through a microscope or with the unaided eye, is to fall into the trap of considering the senses individually, rather than as working in consort. For as Pamela Gilbert has explored so well in Victorian Skin: Surface, Self, History (2019), skin is not just something one observes, but it’s the seat of the sense of touch, both literal and, in the case of Middlemarch, wincingly metaphorical.\(^\text{14}\) When Will Ladislaw speaks harshly to Rosamond, he assaults her sense of self. There is a ‘sharp edge’ to his voice like the lash of a whip, leaving her ‘bruised’. Whether we see him as an angry horseman or a slave driver, this discomforting metaphor leaves a sequence of images of abuse in the reader’s imaginative visualization. This visualization, like sight itself, will differ from individual to individual: one that depends on pre-existent patterns of looking and registering, of memory and knowledge storage, and of association. But we shouldn’t underplay the fact that the metaphor is a shocking one. However much the self-centred Rosamond deserves to be jolted out of her complacency, this moment of verbal cruelty is described in violent terms that also shifts our sense of Will. We may not see him in quite the same way again.

And here lies one further theme that links all of these essays: we see what we expect to see, until something disrupts our visual habits. This set of expectations, these developing habits, may be connected to one’s task, one’s profession, one’s education – as with the specialist, comparative knowledge that a Victorian museum professional might slowly and expertly accumulate; or that a child might be encouraged to develop in a classroom in order to view the world attentively and curiously. A detective’s sharp eye might lead them to recognize a familiar face, even where they least expect to see it – or a lay person might borrow some of the techniques employed in a different professional field, as with what de Waal memorably terms the ‘dermatological gaze’. All the modes of looking are predicated on the necessity of paying careful attention; banishing unnecessary information and visual and aural distractions. What’s at play is something the French usefully term déformation professionnelle, which Alexandra Horowitz, in her compelling On Looking. A Walker’s Guide to the Art of Observation (2014) defines as ‘the tendency to look at every context from the point of view of one’s profession’.\(^\text{15}\) Her walks are transformed, and made differently purposeful, when she takes them with a geological expert, an etymologist, a scholar of advertisement signage: quite literally, she learns to see different things.


Johannes Müller’s *Elements of Physiology* (1842), which James Green quotes in a different context, alerts us to the importance of selective attention. ‘If we endeavoured to direct our attention to the whole field of vision at the same time’, Müller writes, ‘we should see nothing distinctly, but our mental activity is directed first to this, then to that part, and analyses the detail of the sensation, the part to which the mind is directed being perceived with more distinctness than the rest of the same sensation’.\(^{16}\) In other words, for the sake of our mental focus, and the clarity of our observations, we should fix on a definite object for our attention, in order to be better able to understand both it, and the process of our vision. But steadiness of attention is not the same as steadiness of sight, as Müller indicates. The former involves the interaction of eye and brain, and allows space for association, speculation, and mobility, albeit centred around one object or site or topic.

Yet by the end of the nineteenth century, in what was perceived to be a growing climate of distractions, anxiety mounted about our inability to sustain attention at all.\(^{17}\) But much more recently, in our own media climate, the advantages of distraction are increasingly recognized, and are increasingly celebrated: a counter-blast to those who lament the sparrow-brain effects of digital diversions. Cathy Davidson remarks in the Introduction to her *Now You See It: How the Brain Science of Attention will Transform the Way we Live, Work, and Learn* (2011), that ‘learning, unlearning, and relearning require cultivated distraction, because as long as we focus on the object we know, we will miss the new one we need to see’.\(^{18}\) Marina van Zuylen, in *The Plenitude of Distraction* (2017), suggests that if we call the phenomenon by a different term – ‘reverie, daydreaming, ruminating’, say – we will recognize its creative potential rather than associating it with unproductiveness.\(^{19}\) And Jenny Odell, in a book whose title, *How To Do Nothing* (2019), parodies advice-laden Victorian manuals, underscores the connection between demands for attentiveness, productivity, and modern capitalist systems. Whilst acknowledging that having the space and time to train one’s attention differently is a privilege, she also suggests that the dismantling of the attention economy does not just mean pushing back against the ‘addictive design of technology’, and creating space for reflection, association, and inhabiting one’s present space and moment, but involves ‘environmental politics, labour rights, women’s rights, indigenous rights, anti-racism initiatives, measures for parks and open spaces, and habitat


restoration’. Being able to stop, and look, and reflect, in other words, is not something that happens in splendid isolation, but in shared spaces. It also means, we might add, recognizing that the world, or for that matter, the particular space, that is being looked at from the point of view of one’s particular priority, subjectivity, or, ocular ability, is going to be a distinct one, whose differences demand recognition.

From this perspective, Richard Horne’s preliminary essay to The Poor Artist looks less like a miscellany of information and observations about eyes, eyesight and observation than it seems to be a prescient piece of writing: one that refuses argumentative coherence because the imposition of such a narrative structure would work against the point that not only do we all see differently, but we can learn to see in yet other ways. This, too, is the overall message of this issue of Victorian Network: the exploration not just of different modes of seeing, but of different beliefs among Victorian commentators about how we do, and should, see. In the fable that follows the essay, Horne has his Poor Artist travel through an idyllic pastoral landscape, having it interpreted for him through the very different eyes of a robin, a bee, a fish, an ant, a spider, and a rather snooty cat that refuses to share exactly what he sees. The seventh pair of eyes belongs, of course, to the artist himself. And the one shiny object to which all their eyes are eventually drawn? It’s a golden sovereign – relieving the artist from his financial precarity. It is, of course, a narrative pay-off, too: bringing home the message that although any of us might fall into the trap of thinking that ours is the one way, the true way, of looking – that all of us, for a whole range of reasons, see, and think about seeing, differently.

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Bibliography


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